

WING COMMANDER  
Task Breakdown  
7/26/90

PRE-BETA

KEN DEMAREST (5 days)

- ① 4 days Complete conversation with wingmen, enemy aces, enemy general, tanker captains, etc. (including portraits).
- ② 1 day Implement 4 different weapon displays.
- ③ *clean up ship data*

JEFF GEORGE (12 days)

- ③ 1 day Generate text for campaign progress screens.
- ① 1 day Input all mission data.
- ② 10 days Script all briefings.

PAUL ISAAC (6 days)

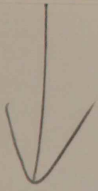
- ① 3 days Design global data structure for maneuver selection and generate data to fill it (with Ken?).
- ② 2 days Debug auto-pilot (with Chris?).
- ③ 1 day Capital ship weapon firing code.
- ④ *Optimize Nath*

HERMAN MILLER (13 days)

- ① 5 days Get EGA and Tandy graphics working (with Chris).
- ② 3 days High-density floppy disk implementation (with Chris). *S.M.*
- ③ 5 days Installation program.

STEVE MUCHOW (8 days)



- 
- (4) 2 days Implement campaign screens in scene director.
  - (1) 2 days Debug input text for train-sim high scores, call sign, etc.
  - (2) 2 days Link in PC speaker sound effects.
  - (3) 2 days Pack entire game (with Herman?)

(5) High density floppy

CHRIS ROBERTS (12 days)

- (4) 1 day Tweak weapon selection code.
- (2) 1 day Alter joystick and mouse routines to allow rolling, acceleration, deceleration, firing, etc.
- (3) 1 day Implement medal sequence establishing shot.
- (5) 2 days Design, script, and implement (two? four?) different endgame sequences (with Jeff).
- (1) 2 days Implement final music from Fat Man.
- 2 days Clean up ship data (with Ken and Paul). K
- 3 days Optimize math routines for machine speed compensation (with Paul?) P.

ART DEPT. (8 days)

- (4) 5 days EGA/Tandy palette tweaking (art).
- (1) 1 day Damage to ship profiles (art).
- (2) 1 day Main game option screen (Denis).
- (3) 1 day Tweak projectile art (Denis).

POST-BETA

JEFF GEORGE (2 days)

2 days      Debug briefings.

PAUL ISAAC (5+ days)

3+ days      Tweak enemy ship intelligence (tougher, more aggressive, fire more missiles).

2 days      Strike mission debugging.

STEVE MUCHOW (2 days)

2 days      Perfect mouse sensitivity and correct disappearing mouse problem.

MARC SCHAEFGEN (? days)

? days      Ad Lib sound editing.



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PRE-BETA

Chris - Attach a name  
to each of these tasks. If  
the sequence of tasks is  
important, indicate that as  
well, if you can.  
Thanks,

- |          |   |               |
|----------|---|---------------|
| ✓ 3 days | Design global data structure for maneuver selection and generate data to fill it.                           | P (K?)<br>Wam |
| ✓ 1 day  | Tweak weapon selection code.  | C3            |
| ✓ 1 day  | Capital ship weapon firing code.  | P             |
| ✓ 1 day  | Generate text for campaign progress screens.  | JSq2.         |
| ✓ 2 days | Implement campaign screens in scene director.   | SM2           |
| ✓ 2 days | Debug input text for train-sim high scores, call sign, etc.   | SM            |
| ✓ 1 day  | Alter joystick and mouse routines to allow rolling, acceleration, deceleration, firing, etc.                | C             |
| ✓ 4 days | Complete conversation with wingmen, enemy aces, enemy general, tanker captains, etc. (including portraits). | K             |
| ✓ 1 day  | Implement 4 different weapon displays.  | K2.           |
| ✓ 5 days | Get EGA and Tandy graphics working.   | C + H.M.      |
| ✓ 5 days | EGA/Tandy palette tweaking (art).   |               |
| ✓ 1 day  | Implement medal sequence establishing shot.   | C+.           |
| ✓ 2 days | Debug auto-pilot.   | P2 (C?)       |
| ✓ 3 days | High-density floppy disk implementation   | H.M. + S.M.   |
| ✓ 5 days | Installation program.   | H.M.          |
| ✓ 2 days | Design, script, and implement (two? four?) different endgame sequences.                                     | CR + JSq      |
| ✓ 2 days | Implement final music from Fat Man.   | C2            |

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PRE-BETA

Chris - Attach a name  
to each of these tasks. If  
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Thanks,

- |                          |   |               |
|--------------------------|---|---------------|
| ✓ 3 days                 | Design global data structure for maneuver selection and generate data to fill it.                           | P (K?)<br>Wam |
| ✓ 1 day                  | Tweak weapon selection code.  | C3            |
| ✓ 1 day                  | Capital ship weapon firing code.  | P             |
| ✓ 1 day                  | Generate text for campaign progress screens.  | JG2.          |
| ✓ 2 days                 | Implement campaign screens in scene director.   | SM2           |
| ✓ 2 days                 | Debug input text for train-sim high scores, call sign, etc.   | SM            |
| ✓ 1 day                  | Alter joystick and mouse routines to allow rolling, acceleration, deceleration, firing, etc.                | C             |
| 2/ken<br>2/paul ✓ 4 days | Complete conversation with wingmen, enemy aces, enemy general, tanker captains, etc. (including portraits). | K             |
| Ken ✓ 1 day              | Implement 4 different weapon displays.  | K2.           |
| ✓ 5 days                 | Get EGA and Tandy graphics working.   | C+H.M.        |
| ✓ 5 days                 | EGA/Tandy palette tweaking (art).   |               |
| ✓ 1 day                  | Implement medal sequence establishing shot.   | C4.           |
| ✓ 2 days                 | Debug auto-pilot.   | P2 (C?)       |
| ✓ 3 days                 | High-density floppy disk implementation   | H.M + S.M.    |
| ✓ 5 days                 | Installation program.   | H.M.          |
| ✓ 2 days                 | Design, script, and implement (two? four?) different endgame sequences.                                     | CR + JG       |
| ✓ 2 days                 | Implement final music from Fat Man.   | C2            |



- ✓ 5 days Installation program. H.M.
- ✓ 2 days Design, script, and implement (two? four?) different endgame sequences. C.R. + J.G.
- ✓ 2 days Implement final music from Fat Man. C2

- ✓ 1 day Input all mission data. J.G.
- ✓ 10 days Script all briefings. J.G.
- ✓ 2 days Link in PC speaker sound effects. S.M.
- ✓ 1 day Damage to ship profiles (art). DL
- ✓ 1 day Main game option screen (art). DL
- ✓ 1 day Tweak projectile art. DL
- 2 days Clean up ship data. C.R., K, P
- 3 days Optimize math routines for machine speed compensation. C.R. (P?).
- 2 days Pack entire game. S.M. (H.M.)?

#### POST-BETA

- 3+ days Tweak enemy ship intelligence (tougher, more aggressive, fire more missiles). P.
- 2 days Strike mission debugging. P.
- 2 days Perfect mouse sensitivity and correct disappearing mouse problem. S.M.
- 2 days Debug briefings. J.G.
- ? days Ad Lib sound editing. M.S.

## WINGLEADER

### ASSORTED DESIGN NOTES

Prepared June 11, 1990

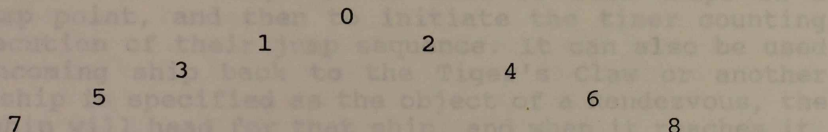
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The following are the design notes originating in the Ship's Intelligence meeting of Friday the 9th. As a variety of topics were discussed, this document covers a similar assortment of issues.

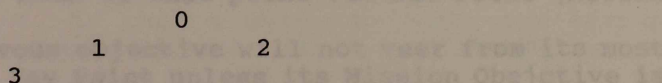
#### First Contact

When enemy vessels are first encountered, they will be flying in a formation which is specified in their Ship Init data (formation specs will need to be added to MISMAKE). When the two forces have closed to a certain distance, they will break formation in a cinematically-pleasing pattern, and then close with the enemy.

We will need to design a handful of formations for enemy vessels. Possibilities include Flying Wedge, Vee, Follow-the-Leader, Y, Slanted Diamond, etc. The position of each ship in the mission-make data is an off-set from the three-space position of the commander. A variable in the Ship Init data needs to set the ship's position in the formation; every position within the formation will have a number designation (0 for the commander, then 1, 2, 3, etc.). A sample formation, a simple Vee, might look like this:



Every formation will have positions defined for at least 8 ships, though the formation need not be filled. For example, a squadron of four ships, flying in the Vee formation above, would look like this:



The remaining positions in the formation are empty.

The generic data for every formation will include a break-formation pattern, specifying how the ships break for combat. They may break all at once, rolling out in various directions, or they may break off one or two at a time, rolling off in the same direction in sequence. In the Vee formation above, the ships might break off two at a time, from the end positions working in towards the commander. Ships in positions 7 and 8 break first, banking out at a 60-degree angle to the flight leader's course. The next pair, 5 and 6, break four seconds later, banking away at a 45-degree angle to the commander's course; 3 and 4 break off at a 30-degree angle four seconds after that. 1 and 2 break off at a 15-degree angle to the commanders course four seconds later; the commander maintains his course, but executes a corkscrew roll



as 1 and 2 bank off.

What needs to be added to the Ship Init data are two new variables--one for formation, and one for position in formation. The formation variable will be important only to the flight leader; all ships assigned to him will be placed in positions within the formation specified in his data, according to the position variable in their own Ship Init array.

### Mission Objectives

Every ship has a "Mission Objective," which guides its decision making processes throughout the battle. The original Mission Objective is part of each ship's Ship Init data, though it may be changed if the pilot or his commander decides to withdraw from the battle. Such a decision resets the Mission Objective to "Routed."

All Mission Objectives, except Patrol and Enemy Patrol, call for an object--either a ship, a space station, or a point in space. This will need to be specified in a sub-menu in the Ship Init data in MISMAKE, allowing the mission designer to scroll through the list of ships and the list of action spheres in the current mission.

The various Mission Objectives are:

Rendezvous. Primarily used for capital ships, this Mission Objective sets the ship on a steady course for a specific point in space, or to meet another ship. It is used to send ships on a course to a jump point, and then to initiate the timer counting down to the execution of their jump sequence. It can also be used to bring an incoming ship back to the Tiger's Claw or another vessel; when a ship is specified as the object of a Rendezvous, the rendezvousing ship will head for that ship, and when it reaches it, assume a parallel course at a range of 1,000 units from the ship.

A ship on a Rendezvous objective will head for the center point of each Action Sphere in sequence, until it reaches the one specified as the object of its rendezvous. Thus, if Nav Point 2 (Action Sphere 2) is specified as the destination of the rendezvous, the ship will head to that point via Nav Point (Action Sphere) 1.

A ship with a Rendezvous objective will not veer from its most direct course to the next Nav Point unless its Mission Objective is changed to "Routed."

Escort. This mission objective is usually assigned to fighters guarding larger ships on Rendezvous missions. An escorting ship will fly parallel to the larger ship (the object of its Escort assignment), at a distance of 1,000 units. It will not veer from this course except to engage enemy vessels which come within 2,500 units of the escorted ship and headed in towards the escorted ship; such vessels are presumed aggressive, and are subject to attack. Any vessel headed away from the escorted ship will be ignored, unless it has already been acquired as the target of an escorting ship and is still within 2,500 units of the escorted ship.

Escort will only take a ship as an object; "escorting" a point--the center of an Action Sphere--is meaningless.

Defend. This mission objective is very similar to Escort. The same rules regarding which enemy vessels are considered potential



targets apply. The difference between Defend and Escort is that Defend takes a stationary ship or point as its object. Rather than following a course parallel to a moving ship, the escorting fighters fly in a pattern round and round the stationary ship or jump point.

Strike. A ship with a Strike mission objective is assigned to attack a specific enemy vessel, usually a capital ship or a transport. Like Escort and Defend, Strike takes a ship as its object.

A ship on a strike mission will attempt to get in close enough to hit the target with appropriate missiles (if we plan to add some sort of Exocet-type ship killer, this would be the weapon system of choice in a Strike). When the target ship is destroyed, the Striking ships' mission objectives are reset to "Routed," as they pull out and run for safety.

Patrol. This objective is assigned only to human ships. A ship on Patrol flies at a medium-slow cruising speed to each Nav Point in numeric order. It will engage enemy vessels if it stands a reasonable chance of success; otherwise, it will continue with its patrol or head back to its carrier, depending upon the strength of the opposition and the distance to the mother ship.

Enemy Patrol. This objective is given only to Kilrathi vessels. Ships on Enemy Patrol will wander about within their Action Spheres, waiting to encounter the PC and his wingman. When they have contacted the human ships, they will close for combat, fighting until they are Routed.

Routed. This is a special mission objective, not normally assigned in Ship Init data. Instead, it is assigned during a battle, when the morale of a pilot--or his commander--fails for good, and he decides to retreat. When that happens, the ship's Mission Objective is immediately changed from its original assignment to Routed.

A Routed vessel heads at its best possible speed away from the battle. To avoid problems with ships flying into different Action Spheres and changing shape in the middle of a battle, Routed ships head for a distant point, specified in the mission data. This point has been carefully selected so that a ship may leave any Action Sphere on a nearly-infinite course which will not intersect any of the other Action Spheres specified in the adventure.

Wingman. This mission objective is assigned to wingmen--both human and Kilrathi. Ships with the Wingman objective follow their specified target, veering off for self-defense or to engage enemy ships that attempt to chase the designated wingleader. When his wingleader routs, the wingman routs; when his wingleader is killed, the wingman acquires his wingleader's original mission objective.

#### Commanders, Flight Leaders and Wingmen

All fighter ships--both human and Kilrathi--are either Flight Leaders or Wingmen. Additionally, one fighter in every squadron is designated as the mission commander. These designations affect three things--position in formation, target assignment, and the hierarchy of morale.

Formations. As mentioned above, ships enter combat in any of a variety of formations. The position of each ship in the formation



is based upon the position of the ship designated as the commander and the pattern of the formation. This has been covered adequately under "First Encounter," above.

Target Assignment. The ships within a squadron will usually be divided into pairs, or wings. In each pair is a Flight Leader, responsible for carrying out the mission objective, and a Wingman, responsible for keeping the flight leader alive long enough to accomplish that objective.

The flight leader will follow the intention of the mission objective--striking an enemy vessel, defending a friendly space station, whatever. The wingman flies with the flight leader, to one side and a bit lower and behind the flight leader, where he can see any vessels that might attack the flight leader. The wingman is unconcerned with the mission objective--his purpose is to protect his flight leader. While the flight leader acquires targets according to the mission objective, the wingman acquires targets as they appear to threaten the flight leader.

If a flight leader is killed, his wingman becomes a flight leader himself, free to follow the mission objective personally.

Morale. There is a very simple hierarchy to morale. If a wingman is Routed, he flees the battlesite alone. If a flight leader is Routed, he flees, along with his wingman. If a mission commander is routed, the entire squadron bugs out.

#### Morale

The morale of each pilot is represented by the Stress variable. This variable is modified constantly throughout the battle, according to the events of battle. The current value of the Stress variable is checked against the Pressure Scale to determine how well the pilot is holding up under the strain of battle.

Character Constants Dealing with Morale. As part of his personality profile, every character has two values which are directly relevant to morale. The first of these is the Panic value, which reflects how quickly the character becomes frightened under pressure; the second is the Calm value, which indicates how quickly the character calms back down.

Whenever the pilot encounters a situation that threatens his safety, his Stress is increased by an amount based on his Panic value. Spotting a lone enemy vessel, for example, might bump his Stress up by 1 x his Panic value. Spotting an enemy force of roughly equal strength might increase his stress by 2x Panic, while spotting a significantly larger force might increase Stress by 3x Panic. Taking a hit to the shields adds 1x Panic to Stress, while losing a weapon system, computer, or comm system might drive Stress up by 3x Panic. The death of a pilot's commander or flight leader will no doubt drive his Stress up by 5x Panic or more.

The Calm value represents the pilot's ability to control his emotions and fears in a battle situation. The Calm value is subtracted from the pilot's current Stress periodically, countering the effect of the various circumstances which add the Panic value to the Stress level.

The Pressure Scale. For every mission objective type, there is a unique Pressure Scale, which is used as a yardstick against which the current Stress value may be measured. On the Pressure Scale are



four ranges, which reflect the pilot's ability to concentrate on the mission's objective.

Offensive--When the pilot is at his calmest--which is to say that his Stress is still in the lowest range on the Pressure scale--he is able to concentrate on the main mission objective, be it attacking an enemy vessel, defending a jump point, or whatever. As long as he remains in this range, he will ignore enemy fighters near him.

Defensive--When his Stress level rises into the next range, the pilot becomes concerned with self-defense, forgetting the main mission objective briefly while he turns to directly confront the fighters attacking him.

Evasive--When his Stress level has climbed into the third range, the pilot is momentarily overwhelmed, and becomes preoccupied with getting away from the enemy long enough to regain his composure. In other words, he needs to find some "clear space." He stops firing and concentrates on evasion.

Routed--When his Stress level passes the third range and moves into the fourth, the pilot has lost any hope of winning the encounter. He is now Routed, and will flee the scene of the battle at the greatest possible speed. His original Mission Objective is replaced permanently with "Routed" (see above), and he heads for the retreat point.

If yes, is it the player?  
If yes, increase Stress and pick an evasive maneuver. EXIT.  
If no, am I its designated target?  
If yes, increase Stress and begin an evasive maneuver. EXIT.  
If no, continue.  
If no, continue.  
C. Am I Routed?  
If yes, ROUT toward the Retreat Point. EXIT.  
If no, continue.  
D. Is my objective Rendezvous?  
If yes, am I in the same action sphere as my destination?  
If yes, PLOT a course for the destination. EXIT.  
If no, PLOT a course for the next nav point. EXIT.  
If no, continue.  
D. Did I have a target before I entered the Decision Tree, and is that target now destroyed?  
If yes, clear the "current target" variable in a and GLOAT. EXIT.  
If no, continue.  
E. Am I Offensive?  
If yes, switch (mission objective):  
Wingman: Is someone chasing my wingleader (see A above for criteria)?  
If yes, TARGET that ship. EXIT.  
If no, PARALLEL the wingleader. EXIT.  
EnPatrol: TARGET the closest enemy whom is not already targeted. If all are targeted,



### Maneuver/Target Selection

All NPC fighters spend all their time performing maneuvers. The most common maneuver is TARGET, which sends the fighter directly toward an enemy ship, with the intent of killing it. Every few seconds or so, a pilot has the opportunity to change his maneuver. Since the most common maneuver, TARGET, is directed at a specific enemy ship, target selection enters into the process at this step as well.

Generally, a pilot only needs to make a decision when his maneuver type is THINKING--i.e., when he's between targets. When any particular maneuver is completed, the pilot's maneuver is reset to THINKING, to begin the target selection process again.

Maneuver/target selection is based on the mission objective and morale. After determining his current overall objective and his current morale level, a pilot goes through the following flowchart to decide what action to take.

- A. Is my current maneuver anything other than THINKING?
  - If yes, perform that maneuver. EXIT.
  - If no, continue.
- B. Is there an enemy ship within the 60° cone directly to my rear?
  - If yes, is it within 5000 units?
    - If yes, is it facing me?
      - If yes, is it the player?
        - If yes, increase Stress and pick an evasive maneuver. EXIT.
        - If no, am I its designated target?
          - If yes, increase Stress and begin an evasive maneuver. EXIT.
          - If no, continue.
      - If no, continue.
    - If no, continue.
  - C. Am I Routed?
    - If yes, ROUT toward the Rout Point. EXIT.
    - If no, continue.
  - D. Is my objective Rendezvous?
    - If yes, am I in the same action sphere as my destination?
      - If yes, PLOT a course for the destination. EXIT.
      - If no, PLOT a course for the next nav point. EXIT.
    - If no, continue.
  - D. Did I have a target before I entered the decision tree, and is that target now destroyed?
    - If yes, clear the "current target" variable to 0 and GLOAT. EXIT.
    - If no, continue.
  - E. Am I Offensive?
    - If yes, switch (mission objective):
      - Wingman: Is someone chasing my wingleader (see A above for criteria)?
        - If yes, TARGET that ship. EXIT.
        - If no, PARALLEL the wingleader. EXIT.
      - EnPatrol: TARGET the closest\*\* enemy whom is not already targeted. If all are targeted,

double up on the closest\*\* enemy. EXIT.  
Patrol: Are there enemies in this action sphere?  
If yes, are we outnumbered\*?  
If yes, PLOT to next nav point.  
EXIT.  
If no, TARGET the closest\*\*  
enemy. EXIT.

If no, fly to next nav point. EXIT.  
Strike: Is target in this action sphere?  
If yes, TARGET the mission  
objective. EXIT.

If no, PLOT to next nav point. EXIT.  
Escort: Is there an enemy within 2500 units of my  
ward?

If yes, is it facing my ward?

If yes, TARGET the closest\*\*  
ship which meets those  
conditions and that is not  
already the target of another  
fighter. If all viable targets  
are already targeted, double up  
on the closest\*\* viable target.  
EXIT.

If no, was it my target  
previously?

If yes, am I within 3500  
units of my ward?

If yes, TARGET enemy  
ship. EXIT.

If no, PARALLEL  
ward's course at  
1500 units. EXIT.

If no, PARALLEL ward's  
course at 1500 units.  
EXIT.

If no, PARALLEL ward's course at  
1500 units. EXIT.

Defend: Is there an enemy within 2500 units of my  
defense point?

If yes, is it facing my defense  
point?

If yes, TARGET the closest\*\*  
ship which meets those  
conditions and that is not  
already the target of another  
fighter. If all viable targets  
are already targeted, double up  
on the closest\*\* viable target.  
EXIT.

If no, was it my target  
previously?

If yes, am I within 3500  
units of my defense  
point?



#### MANEUVERS

Every few game cycles, each pilot will plot a vector to match the maneuver he is performing. Some maneuvers also set a timer, which counts down. When the timer expires, the maneuver is THINNING.

Here is a list of the possible maneuvers:  
THINNING()

If yes, TARGET enemy ship. EXIT.

If no, CIRCLE defense point at 1500 unit distance. EXIT.

If no, CIRCLE defense point at 1500 unit distance. EXIT.

If no, CIRCLE defense point at 1500 unit distance. EXIT.

If no, continue.

E. Am I Defensive?

If yes, TARGET closest\*\* enemy. EXIT.

If no, continue.

F. Am I Evasive?

If yes, randomly PLOT a vector within 30° of my current vector along which there is no enemy ship within 7500 units. If this fails twice, widen search to 60°. If this fails twice, execute a SPLIT-S maneuver to a random cardinal direction other than the one closest to the current line of flight. EXIT.

If no, logical error has occurred. Execute a TIGHT LOOP (to alert playtesters/debuggers). EXIT.

\*--Assign each ship type some sort of constant "combat value," based on its firepower-to-armor ratio. Ignore speed and agility. To determine whether a force is outnumbered, sum up the combat values of each side.

\*\*--"Closest" refers to pseudo-distance, which is real distance weighted by several factors: halve if the ship in question is within the pilot's forward field of view; double if the ship is flying away from the pilot; halve if the ship was the pilot's target before the decision tree started.

TURN\*H\*SPIN(target ship)

BURNOUT(target ship)

SHAKE(target ship)

ROLL(target ship)

HARD TURN(new heading)

Execute a hard 90° turn in a random direction, then immediately shut off engines and spin to face target ship. This maneuver is timed.  
Hit the afterburners and travel in a straight line. While the afterburners are still active, turn 180° and reset maneuver to TARGET. Fly along the target ship's vector, sweeping back and forth, turning 45° relative to that vector. (This is a lousy way to evade someone, but it looks neat.) This maneuver is timed.  
Identical to a SHAKE, except that you perform a corkscrew roll along the target's vector. This maneuver is timed.  
Turn as tightly as possible to the

### Maneuvers

Every few game cycles, each pilot must adjust his current vector to match the maneuver he is performing. Most maneuvers have a parameter, which is usually either a vector or a ship-number. Some maneuvers also set a timer, which counts down each game cycle. When the timer expires, the maneuver is automatically reset to THINKING.

Here is a list of the possible maneuvers:

THINKING()	Maintain current vector, engines on, and wait until your maneuver/target selection turn comes around again.
KICKSTOP(target ship)	Make a hard 90° turn in a random direction and continue along that vector until the designated target has passed you in the plane perpendicular to your current vector, then turn 180° and reset your maneuver to TARGET the designated target.
TIGHT LOOP(orig. vctr.)	Perform a minimum-radius turn (usually along the pitch axis) until your heading has come back to your original heading.
HARD BRAKE(target ship)	Slow down as much as possible, keeping the same heading. When the target enters your front field of view, reset your maneuver to TARGET him. <u>This maneuver is timed.</u>
SIT'N'SPIN(orig. vctr.)	Shut off the engines and spin 360° in a random plane. If a target presents itself, fire at it (this decision is handled later). When heading again matches the original vector, switch the engines back on and reset maneuver to THINKING.
TURN'N'SPIN(target ship)	Execute a hard 90° turn in a random direction, then immediately shut off engines and spin to face target ship. <u>This maneuver is timed.</u>
BURNOUT(target ship)	Hit the afterburners and travel in a straight line. While the afterburners are still active, turn 180° and reset maneuver to TARGET.
SHAKE(target ship)	Fly along the target ship's vector, swooping back and forth, turning 45° relative to that vector. (This is a lousy way to evade someone, but it looks neat.) <u>This maneuver is timed.</u>
ROLL(target ship)	Identical to a SHAKE, except that you perform a corkscrew roll along the target's vector. <u>This maneuver is timed.</u>
HARD TURN(new heading)	Turn as tightly as possible to the



FISHHOOK(new heading)

SPLIT-S(new heading)

SIT'N'KICK()

KICKIT()

TURN'N'KICK(new heading)

ROUT()

PLOT(dest. point)

PARALLEL(target ship)

INTERCEPT(target ship)

CIRCLE(defense point)

GLOAT()

new heading, then reset maneuver to THINKING.

Turn as tightly as possible to a heading directly opposite the new heading. Then perform a HARD TURN to the new heading.

Roll until the ship's horizontal plane matches the plane of the turn, then pitch the ship to the new heading. Once there, roll the ship back to as close to the player's horizontal plane as possible, then reset the maneuver to THINKING.

Execute a hard 90° turn in a random direction, then immediately shut off engines and spin to face target ship. Once you're facing the target, pick a random direction 90° away from your current heading and turn to face that direction, firing the afterburners as you go. Once the afterburners have run out, reset maneuver to THINKING.

Hit the afterburners and fly in a straight line until they run out, then reset maneuver to THINKING.

Turn as tightly as possible to the new heading, then reset maneuver to KICKIT().

If the current vector does not point toward the Rout Point, TURN'N'KICK to the necessary heading. If the vector does point toward the rout point, KICKIT.

Using medium turns at medium speed, fly toward destination point. When you're within 1500 units of it, reset maneuver to THINKING.

If you're within 1500 units of the target ship, match vectors with it and reset maneuver to THINKING. If not, INTERCEPT the target.

Using medium turns at medium speed, fly toward the target ship, resetting maneuver to THINKING when the range is less than 1500 units.

If you're within 1500 units of the point, fly in a circle of 1500 unit diameter around the point. If not, PLOT a course for the point.

Fly along a straight course as fast as possible (without afterburners), executing a slow corkscrew roll. This maneuver is timed.

TARGET(target ship)

This is the big one. Fly straight toward the target. When you reach 1000 units, make a decision: TAIL the target if he's heading away from you and he's in front of you; otherwise, FLYBY the target.

TAIL(target ship)

Try to match vectors with the target, keeping 500 units behind him. This maneuver is timed.

FLYBY(target ship)

Fly directly toward the target. Once you're within 300 units, maintain as straight a line as possible while avoiding a collision. Once the target is no longer in your forward field of view, reset maneuver to THINKING.

SUCKER()

Drop a space mine and KICKIT.

#### Fire Decision

A. Is there a capital ship in front of you?

If yes, are you within 1500 units?

If yes, fire Exocet. EXIT.

If no, have you lost all of your front shields AND armor?

If yes, fire Exocet. EXIT.

If no, is the target within 2500 units?

If yes, are you Evasive?

If yes, fire Exocet. EXIT.

If no, continue.

If no, continue.

B. Is there an enemy fighter in your gunsights?

If yes, is he within optimum range of your primary direct-fire weapon?

If yes, fire primary DFW. EXIT.

If no, is he within optimum range of your secondary DFW?

If yes, fire secondary DFW. EXIT.

If no, is he within effective range of your primary DFW?

If yes, fire primary DFW. EXIT.

If no, is he within effective range of your secondary DFW?

If yes, fire secondary DFW. EXIT.

If no, continue.

If no, continue.

B. Is there an enemy fighter less than 1500 units in front of you?

If yes, is he facing away from you?

If yes, fire a heat-seeking missile OR an IR missile. EXIT.

If no, fire an IR missile. EXIT.

If no, continue.

C. Is your current designated target within 1000 units?

If yes, fire an IFF missile. EXIT.



GENERAL NO. If no, hold your fire. EXIT.

About two minutes before I finished this, I looked back at your code and realized what the ship tactics are for. Some of what's in here should really go under tactic selection, and the whole decision process should be revamped to be based off the current tactic as opposed to the current situation. I don't really have time to do that; I hope that implementing this stuff isn't too difficult.

Chris wants NPCs to make mistakes, based on their skill. My concern right now is simply to make the fundamental logic as good as necessary. Ace pilots, in my view, should normally make no mistakes--at least, they should make no mistakes within the decision framework we've put together. Worse pilots, however, should miscalculate at various spots. This would generally take the form of adding (or subtracting) a random fudge factor to things like target range, target facing, and facing to target, before entering the decision tree. Once we're in alpha, either you or I can look at the code and drop these random factors in.

--Stephen B.

#### MANEUVER SELECT

Am I a capital ship?

If yes, are there any enemy ships within 15000 units?

If yes, set speed to max and GO TO PICK\_DESTINATION

If no, set speed to cruise and GO TO PICK\_DESTINATION.

If no, breathe a sigh of relief and continue.

Am I being chased?

If yes, is my ship\_target equal to my ship\_mission\_ship?

If yes, is it within 2500 units?

If yes, ignore opponent and SWOOP down on target.

EXIT.

If no, is my pursuer's firepower better than my armor?

If yes, GO TO PICK\_SHAKE.

If no, ignore opponent and GO TO PICK\_CHASE.

If no, GO TO PICK\_SHAKE.

If no, continue.

Am I trying to evade?

If yes, am I within 7500 units of an enemy facing me, within 5000 of any other enemy?

If yes, try random vectors that are 90° away from my own.

If a vector does not pass within 2000 units of an enemy, fly along it at max speed. If three random vectors fail, then hit the afterburners and start wabbling; start trying vectors again in 30 turns.

If no, stop evading and drift. EXIT.

If no, continue.

Do I have a ship target?

If yes, GO TO PICK\_CHASE.

If no, continue.

Do I have a ship\_mission\_point or a ship\_mission\_ship?

## GENERAL NOTES

About two minutes before I finished this, I looked back at your code and realized what the `ship_tactics` are for. Some of what's in here should really go under tactic selection, and the whole decision process should be revamped to be based off the current tactic as opposed to the current situation. I don't really have time to do that; I hope that implementing this stuff isn't too difficult.

Chris wants NPCs to make mistakes, based on their skill. My concern right now is simply to make the fundamental logic as good as necessary. Ace pilots, in my view, should normally make no mistakes--at least, they should make no mistakes within the decision framework we've put together. Worse pilots, however, should miscalculate at various spots. This would generally take the form of adding (or subtracting) a random fudge factor to things like `target_range`, `target_facing` and `facing_to_target` before entering the decision tree. Once we're in alpha, either you or I can look at the code and drop these random factors in.

--Stephen B.

## MANEUVER\_SELECT

Am I a capital ship?

If yes, are there any enemy ships within 15000 units?

If yes, set speed to max and GO TO PICK\_DESTINATION.

If no, set speed to cruise and GO TO PICK\_DESTINATION.

If no, breathe a sigh of relief and continue.

Am I being chased?

If yes, is my `ship_target` equal to my `ship_mission_ship`?

If yes, is it within 2500 units?

If yes, ignore opponent and SWOOP down on target.  
EXIT.

If no, is my pursuer's firepower better than my armor?

If yes, GO TO PICK\_SHAKE.

If no, ignore opponent and GO TO PICK\_CHASE.

If no, GO TO PICK\_SHAKE.

If no, continue.

Am I trying to evade?

If yes, am I within 7500 units of an enemy facing me, or within 5000 of any other enemy?

If yes, try random vectors that are 90° away from my own.

If a vector does not pass within 2000 units of an enemy,

fly along it at max speed. If three random vectors all fail, then hit the afterburners and start wobbling; start

trying vectors again in 30 turns.

If no, stop evading and drift. EXIT.

If no, continue.

Do I have a `ship_target`?

If yes, GO TO PICK\_CHASE.

If no, continue.

Do I have a `ship_mission_point` or a `ship_mission_ship`?



If yes, is my mission objective within this action sphere?  
If yes, is my mission objective less than 100 turns away  
at my current speed?  
If yes, set speed to cruise and GO TO  
PICK\_DESTINATION.  
If no, is it less than 250 turns away at my current  
speed?  
If yes, set speed to max and GO TO  
PICK\_DESTINATION.  
If no, set speed to max, hit the afterburners  
and GO TO PICK\_DESTINATION.  
If no, set speed to cruise and GO TO PICK\_DESTINATION.  
If no, drift. EXIT.

#### PICK\_SHAKE

First, set the value of the temporary BOOLEAN variable **AGGRESSIVE**:  
if his armor is better than my firepower, TRUE, otherwise  
FALSE.

Is the person chasing me more maneuverable than I?

If yes, does he have more acceleration?

If yes, am I AGGRESSIVE?

If yes, is my ship\_target equal to my  
ship\_mission\_ship?

If yes, sit\_n\_spin. EXIT.

If no, turn\_n\_spin. EXIT.

If no, I'm fucked. Pick randomly between zig\_zag,  
zig\_zag\_pitch, split\_left, split\_right and  
corkscrew, just to make it look good. EXIT.

If no, am I AGGRESSIVE?

If yes, pick randomly between burnout and  
hard\_brake. EXIT.

If no, kickit. EXIT.

If no, am I AGGRESSIVE?

If yes, then pick randomly between a tight\_loop, a  
kick\_stop and a fish\_hook. EXIT.

If no, is my acceleration better than his?

If yes, then choose randomly between a turn\_n\_kick,  
a split\_right and a split\_left. EXIT.

If no, then pick randomly between a barrel\_up, a  
barrel\_down, a split\_left and a split\_right. EXIT.

#### PICK\_CHASE

Is facing\_to\_target > .5?

If yes, continue.

If no, immelman to face target. EXIT.

Am I within 2500 units of my target?

If yes, is target\_facing < -.8 and facing\_to\_target > .8?

If yes, chase. EXIT.

If no, is target\_facing < -.5 and facing\_to\_target > .5?

If yes, mongoose. EXIT.

If no, dodge. EXIT.

If no, seek. EXIT.

#### PICK\_DESTINATION



Is my destination within this action sphere?

If yes, fly straight for it at current speed. EXIT.

If no, fly at current speed straight toward the next numbered action sphere that can support my ship art. (Kilrathi go from sphere to sphere in reverse order--9 to 0; ConFeds travel in regular order--0 to 9. The person who creates the mission needs to make sure to keep all this in mind as he places the ships and assigns them missions.) EXIT.

#### NEW MANEUVERS

Equivalents to these maneuvers may already exist. If so, use those instead of these; it doesn't really matter to me. All I'm concerned with here is the general effect.

Immelman: Roll until the desired vector can be reached strictly through the pitch axis, then pitch to match the vector and roll to match either the target's roll or the solar plane.

Dodge: Avoid the target ship, turning to get behind him if given a choice.

Chase: If `target_facing < -.9`, just match vectors with the target, corkscrewing to look neat and to get a better fire pattern. If `target_facing` is outside that zone, test to see whether the pursuer's current vector will rectify the situation within 10 turns; if not, pick a vector that will. In any case, try to match speeds with the target as long as it is within 2500 units; if it is outside that range, go to max speed until it gets within that range; if it is outside that range and its max speed is higher than yours, hit the afterburners.

Mongoose: This is the only point (currently) where the computer will try to lead the target. Determine how many turns it will take for the ship in question to reach a point anywhere behind the target, assuming the target remains stationary. Then multiply the target's velocity by that many turns and plot a vector for a point 2000 units directly behind that point. I don't think it's possible for this vector to intercept the target's vector, but if it is, just count on the collision avoidance logic to keep them from hitting.

Seek: If the target is facing away, try to go 25% faster than him. If you're already at your max speed and it's not enough, kick in the afterburners. If the target is facing toward you and his firepower is better than your armor, boost to max speed; otherwise, slow to cruise speed.



I have modified ship.c and ship.h. To link them into your code, you must create a definition for torpedoes--the "object\_types" enum in types.h must have "torpedo" added into it somewhere, and the type data in shipdat.c must have data for the torpedo added into it at the same relative spot. If you haven't modified either of these files on your machine, you can get my copies.

The **fire()** function has been expanded to cover both space mines and anti-capital-ship torpedoes. A single call to **fire()** will handle ALL weapons.

If the player wishes to drop a mine, call the **drop\_player\_mine()** function; as noted above, NPCs drop mines via the **fire()** function. Mines have a delay; until their object\_counters run out, they cannot explode. A mine's object\_counter and object\_safe are set to some variable value when the mine is dropped. For NPCs, this value always gives the dropping ship time to clear the blast radius. For the PC, we can either give the player a choice of delays, set the mine to wait until safe just as for NPCs, or just pick some likely number and let the player learn how fast he needs to go to be safe. Right now, the code uses option #3; the value PC\_MINE\_DELAY is #defined in ship.h.

ACS torpedoes are just a different kind of heat-seeking missile that can only lock on to capital ships. They are fired by the player just like regular missiles, so no special code is required. NPCs fire them whenever they would normally fire a missile and their target is a capital ship in the proper orientation--target\_facing <= -0.85, facing\_to\_target

You need to be sure to check to see whether an NPC ship on a Strike mission has any torpedoes. If it does not, it should immediately start Escorting a ship that does. If no NPC ships have torpedoes, they should rout--their mission is blown.

## WINGMAN STRATEGY

The primary goal of every wingman is simple: to keep his wingleader alive.

Every time a wingman gets to pick between targets, he should go through a logic tree similar to this:

Is the player's ship tailing my wingleader?

If yes, target the player's ship. EXIT.

If no, continue.

Is there an enemy ship within 2500 units who has my wingleader as his ship\_target?

If yes, is there one who is not already the target of my wingleader?

If yes, target the closest such ship, using weighted distances. Ships facing my wingleader are half as far as ships facing away from him; ships I am facing are half as far as ships behind me; the ship who is currently my target is half as far as any other ship. EXIT.

If no, continue.

If no, continue.

Am I being tailed?

If yes, act as a regular ship being tailed--i.e., try to shake or kill the pursuer. (Note that, for all ships, we need some logic that says that if your pursuer is himself being tailed, fly straight to try to lure him to his doom. Naturally, Defensive or Evasive pilots will not do this--only Offensive pilots think this clearly under pressure.) EXIT.

If no, continue.

Is there an enemy ship within 3500 units who is facing me and has me as his target? (Always assume that the player has me as his ship\_target.)

If yes, is that ship behind my wingleader?

If yes, engage the closest such ship, using the weighting factors above (but replace "wingleader" with "me"). EXIT.

If no, continue.

If no, continue.

Fly wingman-formation: behind and to the right of my wingleader. EXIT.

Naturally, this only applies when a wingman is Offensive. All other times, the wingman acts like any other pilot, preserving his own butt.

The player's wingman follows the same logic. However, the player can "hand off" a target to his wingman. The wingman will pursue that target until the target dies or Routs, until the wingman gets 5000 units away from the player or until the player calls him up on the VDU and asks for help.

Enemy aces may be able to hand-off targets to their wingmen as well. If so, an ace would do so whenever his wingman currently had no other target and was fairly nearby, and the ace had a better



target to go after. The player is a better target than the player's wingman, who is a better target than any other fighter. The wingman would be summoned back whenever the ace became Defensive.

WINGLEADER Friday Goal List  
6/18/90

QFC III back cover  
copy 7/30

Herman

1. Finish AdLib and Roland sound effect drivers in library form ✓
2. Install Marc's AdLib sound effects (Don't have them yet)
3. Expanded memory manager (higher level C interface routines) (In progress)
4. Make sound driver play music in expanded memory
5. PC speaker sound (Some experimentation)  
Write doc. for break point editor

Marc

1. Finish AdLib sound effects and get them to Herman (Finished. Need editing)
2. Create final Roland sound effects (for funeral, ejection, etc.)
3. Insert break points in music so tunes will flow and loop

John

1. Finish ship targeting display (Except for Dreadnought)
2. Position exhaust flames
3. Create illos for PC ship weapon display

Jeff G.

1. Medal ceremony text ✓
2. Sample commander's room visit text (By Tomorrow)
3. Enemy & wingman personality profiles
4. Begin planning campaign progress screens (Begin)

Cut campaign progress  
screens?

Steve M.

1. Tweak mission maker ✓
2. Incorporate VGA TMDraw ✓
3. Slot in EGA TMDraw
4. Assist Chris in completion of animation sequences

Finish barracks room.

Fit together all animation sequences in some kind of system  
that calls appropriate one



5. Text for animated sequences banked in from disk
6. Change files over to packet system

Glen

1. Spinning pilot after ejection ✓
2. Pilots clapping in briefing room (cleaning up)
3. Clean up smoking wingman's eyes ✓
4. PC's left hand (thumbs up, etc.) (Chris must digitize)
5. Help Denis, as necessary
6. Player salutes ✓
7. Commander salutes ✓
8. Establishing shot of Commander in office

Paul

1. Maneuver scripts (Done but...)
2. Target selection (Done but not inc.)
3. Event timers (Untested)

Steve B.

1. Regular & personality maneuver selection

*Do tables to determine maneuver selection for each ship type & each pilot*

Denis

1. View through faceplate (Needs to be built)
2. Side view: Raptor, Scimitar, Rapier inc. damage, kill markings
3. Campaign progress screens
4. Add video game to rec room ✓
5. Game options screen
6. Est. shot - debrief & comms. room (Working on 'ent)

Chris

1. Finish animation sequences and intelligence required so game can cut to the right one

WING COMMANDER  
Task Breakdown  
7/26/90

PRE-BETA

KEN DEMAREST (7 days)

- 4 days Complete conversation with wingmen, enemy aces, enemy general, tanker captains, etc. (including portraits).
- 1 day Implement 4 different weapon displays.
- 2 days Clean up ship data (with Chris and Paul).

JEFF GEORGE (12 days)

- 1 day Input all mission data.
- 10 days Script all briefings.
- 1 day Generate text for campaign progress screens.

PAUL ISAAC (9 days)

- 3 days Design global data structure for maneuver selection and generate data to fill it (with Ken?).
- 2 days Debug auto-pilot (with Chris?).
- 1 day Capital ship weapon firing code.
- 3 days Optimize math routines for machine speed compensation (with Chris).

HERMAN MILLER (10 days)

- 5 days Get EGA and Tandy graphics working (with Chris).
- 5 days Installation program.



STEVE MUCHOW (11 days)

- 2 days      Debug input text for train-sim high scores, call sign, etc.
- 2 days      Link in PC speaker sound effects.
- 2 days      Pack entire game (with Herman?)
- 2 days      Implement campaign screens in scene director.
- 3 days      High-density floppy disk implementation (with Chris).

CHRIS ROBERTS (7+ days)

- 2 days      Implement final music from Fat Man.
- 1 day      Alter joystick and mouse routines to allow rolling, acceleration, deceleration, firing, etc.
- 1 day      Implement medal sequence establishing shot.
- 1 day      Tweak weapon selection code.
- 2 days      Design, script, and implement (two? four?) different endgame sequences (with Jeff).

ART DEPT. (8 days)

- 1 day      Damage to ship profiles (art).
- 1 day      Main game option screen (Denis).
- 1 day      Tweak projectile art (Denis).
- 5 days      EGA/Tandy palette tweaking (art).

POST-BETA

JEFF GEORGE (2 days)

JEFF GEORGE (2 days)

2 days      Debug briefings.

PAUL ISAAC (5+ days)

3+ days      Tweak enemy ship intelligence (tougher, more aggressive, fire more missiles).

2 days      Strike mission debugging.

STEVE MUCHOW (2 days)

2 days      Perfect mouse sensitivity and correct disappearing mouse problem.

MARC SCHAEFGEN (? days)

? days      Ad Lib sound editing.

Series 1 - LAKE			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2		
Series 2 - MCROUETTE			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2	<input type="checkbox"/> Mission 3	
Series 3 - GATEWAY			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2	<input type="checkbox"/> Mission 3	
Series 4 - SIMPLE			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2	<input type="checkbox"/> Mission 3	
Series 5 - BRIMSTONE			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2	<input type="checkbox"/> Mission 3	
Series 6 - CHENG-DU			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2	<input type="checkbox"/> Mission 3	
Series 7 - DAKOTA			
<input type="checkbox"/> Mission 1	<input type="checkbox"/> Mission 2	<input type="checkbox"/> Mission 3	
Series 8 - FORT BEDLAND			



## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

PRODUCT NAME: \_\_\_\_\_

SKU: \_\_\_\_\_ VERSION: \_\_\_\_\_

SIGNATURE/DATE: \_\_\_\_\_

### INTRO / TITLE SEQUENCE

- ☐ Credits
- ☐ Music
- ☐ Graphics
- ☐ Key press bypass/interrupt
- ☐ Music toggle
- ☐ Enter PC Name/Callsign
- ☐ Origin Logo & Copyright Notice

### WINGMAN INFO & ANIMATION

- ☐ SPIRIT - 2nd Lt. Tanaka Mariko
- ☐ PALADIN - Major James Taggart
- ☐ ANGEL - Captain Jeanette Devereaux
- ☐ MANIAC - 2nd Lt. Todd Marshall
- ☐ KNIGHT - Captain Joseph Khumalo
- ☐ BOSSMAN - Major Chen Nugato (?)
- ☐ ICEMAN - Major Michael Casey
- ☐ HUNTER - Captain Ian St. John

### RECROOM - Animations & Text

#### Series 1 - ENYO

- ☐ Mission 1      ☐ Mission 2

#### Series 2 - McAULIFFE

- ☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 3 - GATEWAY

- ☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 4 - GIMLE

- ☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 5 - BRIMSTONE

- ☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 6 - CHENG-DU

- ☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 7 - DAKOTA

- ☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 8 - PORT HEDLAND

## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- |                                    |                                    |                                    |
|------------------------------------|------------------------------------|------------------------------------|
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 9 - KURASAWA</b>         |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 10 - ROSTOU</b>          |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 11 - HUBBLE'S STAR</b>   |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 12 - VENICE</b>          |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 |                                    |
| <input type="checkbox"/> Mission 3 | <input type="checkbox"/> Mission 4 |                                    |
| <b>Series 13 - HELL'S KITCHEN</b>  |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 |                                    |
| <input type="checkbox"/> Mission 3 | <input type="checkbox"/> Mission 4 |                                    |

### TRAINSIMS (Flight Simulator)

- |                                 |                                  |                                |                                 |
|---------------------------------|----------------------------------|--------------------------------|---------------------------------|
| <input type="checkbox"/> Salthi | <input type="checkbox"/> Dralhti | <input type="checkbox"/> Krant | <input type="checkbox"/> Gratha |
|---------------------------------|----------------------------------|--------------------------------|---------------------------------|

### BARRACKS

- ☐ Go to Bar
- ☐ Exit to DOS
- ☐ Go to Mission Hangar
- ☐ Save this Campaign
- ☐ Replace this Campaign
- ☐ Load this Campaign

### BRIEFING - Animation & Text

- |                                    |                                    |                                    |
|------------------------------------|------------------------------------|------------------------------------|
| <b>Series 1 - ENYO</b>             |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 |                                    |
| <b>Series 2 - McAULIFFE</b>        |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 3 - GATEWAY</b>          |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 4 - GIMLE</b>            |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 5 - BRIMSTONE</b>        |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 6 - CHENG-DU</b>         |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |
| <b>Series 7 - DAKOTA</b>           |                                    |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 | <input type="checkbox"/> Mission 3 |



## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

### Series 8 - PORT HEDLAND

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

### Series 9 - KURASAWA

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

### Series 10 - ROSTOV

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

### Series 11 - HUBBLE'S STAR

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

### Series 12 - DENICE

☐ Mission 1      ☐ Mission 2

☐ Mission 3      ☐ Mission 4

### Series 13 - HELL'S KITCHEN

☐ Mission 1      ☐ Mission 2

☐ Mission 3      ☐ Mission 4

### DEBRIEFING- Animation & Text

#### Series 1 - ENYO

☐ Mission 1      ☐ Mission 2

#### Series 2 - McAULIFFE

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 3 - GATEWAY

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 4 - GIMLE

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 5 - BRIMSTONE

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 6 - CHENG-DU

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 7 - DAKOTA

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 8 - PORT HEDLAND

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 9 - KURASAWA

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 10 - ROSTOV

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 11 - HUBBLE'S STAR

☐ Mission 1      ☐ Mission 2      ☐ Mission 3

#### Series 12 - DENICE

☐ Mission 1      ☐ Mission 2

## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- |                                    |                                    |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> Mission 3 | <input type="checkbox"/> Mission 4 |
| <b>Series 13 - HELL'S KITCHEN</b>  |                                    |
| <input type="checkbox"/> Mission 1 | <input type="checkbox"/> Mission 2 |
| <input type="checkbox"/> Mission 3 | <input type="checkbox"/> Mission 4 |

### CAMPAIGN PROGRESS SCREENS

- | Screen 1                      | Screen 2                      | Screen 3                      | Screen 4                      |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <input type="checkbox"/> Good | <input type="checkbox"/> Good | <input type="checkbox"/> Good | <input type="checkbox"/> Good |
| <input type="checkbox"/> Bad  | <input type="checkbox"/> Bad  | <input type="checkbox"/> Bad  | <input type="checkbox"/> Bad  |

### MUSIC

- ☐ Dogfights
  - ☐ Regular Combat
  - ☐ Being Tailed
  - ☐ Tailing Someone
  - ☐ Missile Tracking You
  - ☐ Severely Damaged
  - ☐ Intense Combat
  - ☐ Being Tailed
  - ☐ Target Destroyed
  - ☐ Ally Killed
  - ☐ Wingman Killed
  - ☐ Enemy Ace Killed
  - ☐ Overall Victory
  - ☐ Overall Defeat
- ☐ Flying
  - ☐ Return to Carrier Triumphant
  - ☐ Return to Carrier Defeated
  - ☐ Return to Carrier Normal
  - ☐ Mission Type Patrol
  - ☐ Mission Type Escort
  - ☐ Goal Line Stand (Defending)
  - ☐ Mission Type Defense / Escort Engage
  - ☐ Mission Type Strike
- ☐ Ejection Sequence
  - ☐ Rescued
  - ☐ Lost in Space
- ☐ Debriefing
  - ☐ Successful Mission



## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- ☐ Unsuccessful Mission
- ☐ Commander's Office
- ☐ Bar/Recroom Jazz
- ☐ Barracks
- ☐ Briefing Piece

### 3-SPACE

#### ☐ HORNET

- ☐ Radar Screen
- ☐ Speed Indicators
- ☐ Shield/Armor Display
- ☐ Targetting Display
- ☐ Weapons Display
- ☐ Missile Lock
- ☐ Internal Damage Display
- ☐ Communications System
- ☐ Fuel Gauge
- ☐ Gun Charge Display
- ☐ Auto-Pilot (Panaview)
- ☐ Eject Warning
- ☐ Cockpit Damage Graphics
- ☐ Change View - Forward (F1)
- ☐ Change View - Left Side (F2)
- ☐ Change View - Right Side (F3)
- ☐ Change View - Back View (F4)
- ☐ Change View - Rear Camera View (F5)
- ☐ Change View - Cinematic View (F6)
- ☐ Change View - Tactical View (F7)
- ☐ Change View - Missile Camera (F8)
- ☐ Flight Controls - Joystick (All Ref Card)
- ☐ Flight Controls - Mouse (All Ref Card)
- ☐ Flight Controls - Keyboard (All Ref Card)
- ☐ Manual Eject
- ☐ Death Screen w/ Panaview Explosion

#### ☐ SCIMITAR

- ☐ Radar Screen
- ☐ Speed Indicators
- ☐ Shield/Armor Display
- ☐ Targetting Display

## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- ☐ Weapons Display
- ☐ Missile Lock
- ☐ Internal Damage Display
- ☐ Communications System
- ☐ Fuel Gauge
- ☐ Gun Charge Display
- ☐ Auto-Pilot (Panaview)
- ☐ Eject Warning
- ☐ Cockpit Damage Graphics
- ☐ Change View - Forward (F1)
- ☐ Change View - Left Side (F2)
- ☐ Change View - Right Side (F3)
- ☐ Change View - Back View (F4)
- ☐ Change View - Rear Camera View (F5)
- ☐ Change View - Cinematic View (F6)
- ☐ Change View - Tactical View (F7)
- ☐ Change View - Missile Camera (F8)
- ☐ Flight Controls - Joystick (All Ref Card)
- ☐ Flight Controls - Mouse (All Ref Card)
- ☐ Flight Controls - Keyboard (All Ref Card)
- ☐ Manual Eject
- ☐ Death Screen w/ Panaview Explosion

### ☐ RAPTOR

- ☐ Radar Screen
- ☐ Speed Indicators
- ☐ Shield/Armor Display
- ☐ Targetting Display
- ☐ Weapons Display
- ☐ Missile Lock
- ☐ Internal Damage Display
- ☐ Communications System
- ☐ Fuel Gauge
- ☐ Gun Charge Display
- ☐ Auto-Pilot (Panaview)
- ☐ Eject Warning
- ☐ Cockpit Damage Graphics
- ☐ Change View - Forward (F1)
- ☐ Change View - Left Side (F2)
- ☐ Change View - Right Side (F3)
- ☐ Change View - Back View (F4)



## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- ☐ Change View - Rear Camera View (F5)
- ☐ Change View - Cinematic View (F6)
- ☐ Change View - Tactical View (F7)
- ☐ Change View - Missile Camera (F8)
- ☐ Flight Controls - Joystick (All Ref Card)
- ☐ Flight Controls - Mouse (All Ref Card)
- ☐ Flight Controls - Keyboard (All Ref Card)
- ☐ Manual Eject
- ☐ Death Screen w/ Panaview Explosion
- ☐ RAPIER
  - ☐ Radar Screen
  - ☐ Speed Indicators
  - ☐ Shield/Armor Display
  - ☐ Targetting Display
  - ☐ Weapons Display
  - ☐ Missile Lock
  - ☐ Internal Damage Display
  - ☐ Communications System
  - ☐ Fuel Gauge
  - ☐ Gun Charge Display
  - ☐ Auto-Pilot (Panaview)
  - ☐ Eject Warning
  - ☐ Cockpit Damage Graphics
  - ☐ Change View - Forward (F1)
  - ☐ Change View - Left Side (F2)
  - ☐ Change View - Right Side (F3)
  - ☐ Change View - Back View (F4)
  - ☐ Change View - Rear Camera View (F5)
  - ☐ Change View - Cinematic View (F6)
  - ☐ Change View - Tactical View (F7)
  - ☐ Change View - Missile Camera (F8)
  - ☐ Flight Controls - Joystick (All Ref Card)
  - ☐ Flight Controls - Mouse (All Ref Card)
  - ☐ Flight Controls - Keyboard (All Ref Card)
  - ☐ Manual Eject
  - ☐ Death Screen w/ Panaview Explosion
- ☐ Wingman Communications / Animations
  - ☐ SPIRIT - 2nd Lt. Tanaka Mariko
  - ☐ PALADIN - Major James Taggart

## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- ☐ ANGEL - Captain Jeanette Devereaux
- ☐ MANIAC - 2nd Lt. Todd Marshall
- ☐ KNIGHT - Captain Joseph Khumalo
- ☐ BOSSMAN - Major Chen Nugato (?)
- ☐ ICEMAN - Major Michael Casey
- ☐ HUNTER - Captain Ian St. John

### ☐ Kilrathi Ace Communications/Animations

- ☐ Dakhosh Deathstroke
- ☐ KAce Lewey
- ☐ KAce Huey
- ☐ Bakhtosh Redclaw

### ☐ 3D Ship Shapes & Targetting Graphics

- |                                       |                                  |
|---------------------------------------|----------------------------------|
| <input type="checkbox"/> Tiger's Claw | <input type="checkbox"/> Fralthi |
| <input type="checkbox"/> Hornet       | <input type="checkbox"/> Salthi  |
| <input type="checkbox"/> Scimitar     | <input type="checkbox"/> Dralthi |
| <input type="checkbox"/> Raptor       | <input type="checkbox"/> Gratha  |
| <input type="checkbox"/> Rapier       | <input type="checkbox"/> Jalthi  |
| <input type="checkbox"/> Exeter       | <input type="checkbox"/> Krant   |
| <input type="checkbox"/> Drayman      | <input type="checkbox"/> Dorkir  |
| <input type="checkbox"/> Balari       |                                  |

### ☐ Misc. Shapes

- ☐ Asteroids
- ☐ Mines
- ☐ Missles
- ☐ Guns - Blaster Bolts
- ☐ Guns - Gatling Shots
- ☐ Guns - Neutron Shots
- ☐ Death Debris
- ☐ Explosions
- ☐ Ship Sparks
- ☐ Afterburners

## SOUND SYSTEM

- ☐ Music present
- ☐ Music toggle
- ☐ Sound effects present
- ☐ Sound effects toggle



## QUALITY ASSURANCE SOFTWARE FEATURES CHECKLIST

- ☐ Roland SFH
- ☐ AdLib/Soundblaster SFH
- ☐ PC Speaker SFH

### MEDAL CEREMONY

- ☐ Music present
- ☐ Sound effects present
- ☐ Graphics/Animation O.K.
- ☐ Text O.K.
- ☐ Bronze Star
- ☐ Silver Star
- ☐ Gold Star
- ☐ Golden Sun (Only once per campaign)
- ☐ Pewter Planet

### FUNERAL

- ☐ Music present
- ☐ Sound effects present
- ☐ Graphics/Animation O.K.
- ☐ Text O.K.

### ENDGAME

- ☐ Win campaign
- ☐ Lose campaign
- ☐ Music present
- ☐ Animation/Graphics O.K.
- ☐ Text O.K.

### COMMANDER'S OFFICE

- ☐ Music present
- ☐ Animation/Graphics O.K.
- ☐ PC Ejected Text
- ☐ PC Promotion Text
- ☐ PC Ship Change Text

Warren Spector  
ORIGIN Systems, Inc.  
110 Wild Basin Road, Suite 330  
Austin, TX 78746

*This looks A-OK  
to me, Warren.  
-Fred*

May 29, 1990

Jim Rosinus  
Nova Game Designs  
46 Dougherty St.  
Manchester, CT 06040

Dear Jim,

This is to confirm the substance of our discussions of the last few weeks regarding the use of the name "Wingleader."

As you know, ORIGIN is developing a computer game called WINGLEADER. Before settling on that name, we conducted a trademark search through the Federal Document Retrieval office; that search revealed no previous use of the name Wingleader in any medium. Unfortunately, we have since discovered that the name was used by Nova Game Designs to identify an ACE OF ACES boxed supplement.

We feel that this is a non-problem: Paper games and computer games constitute two separate markets. There is little possibility of confusion on the part of a potential buyer. The possibility of confusion is further diminished by the radically different subjects covered by the two games: ORIGIN's WINGLEADER is a 3-D space combat simulator in which the player is placed in the cockpit of a far future space fighter and does real-time battle with enemy space ships piloted by leonine aliens; Nova's WINGLEADER is a World War II air combat booklet-game featuring real, historical aircraft.

In our telephone conversations, you said that there would not likely be any problem with our use of the WINGLEADER name to identify our computer game. To be absolutely sure, however, you wanted a couple of weeks to check with your lawyers and your partners, after which you would draft an official response.

That is where things stand. Based on your verbal okay, we are officially launching WINGLEADER this coming weekend at the Consumer Electronics Show in Chicago. While it would still be possible for us to change the name after CES, we hope this won't be necessary (and, based on our phone conversations, I think you agree).

Please call as soon as possible and let me know Nova's official stance on this subject, followed by written confirmation. For our part, we will, of course, send you copies of WINGLEADER when it is released this fall.

Thanks for your cooperation in this matter. See you at Origins.



be any problem with our use of the WINGLEADER name to identify our computer game. To be absolutely sure, however, you wanted a couple of weeks to check with your lawyers and your partners, after which you would draft an official response.

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Thanks for your cooperation in this matter. See you at Origins.

Sincerely,

Warren Spector

## Proposal to License *Wing Commander* Novels

David Ladyman / First Draft / 10-3-91

As all of you know, we have been approached by a book "arranger" for a license to publish *Wing Commander* novels.

The current proposal is from a competent broker (Bill Fawcett), who has already lined up a publisher (Baen Books).

The current proposal is for a contract that specifies:

- 1) A \$20,000 advance against the first five books
- 2) A 3% (of suggested retail) royalty
- 3) A ten-year exclusive on the *Wing Commander* license (as long as each new title is published within 36 months of the most recent title)
- 4) An unlimited number of books allowed within the license period. If the series is successful, he expects to publish about four books per year.
- 5) A 65% discount on books that we can sell to the software trade (the extent of this market has not yet been defined)

I discussed our options with Sam Lewis, who oversees a similar license for FASA (on their *Battletech* and *Shadowrun* games) with Roc Books. He said that his deal is for 8% of retail, of which FASA keeps 4% and the writer gets 4%. For that 4%, FASA locates and contracts the writers itself, fact-checks each book, then edits each book. Sam estimated that each book requires 2-6 weeks of his time and an additional 4 weeks of an editor's time. We'd probably have to spend about 2 weeks (total) of my time and one other person's time to get the fact-checking done. Comparing the two deals directly (which is not necessarily an accurate comparison), FASA spends 4-8 extra weeks per book for an additional 1% of retail. If a \$4 book sells 50,000 copies, 1% = \$2,000. If it sells 100,000 copies, 1% = \$4,000.

They purchase copies from Roc at about 35% of retail (the same figure Fawcett suggested).

(Are FASA and ORIGIN comparable? *Battletech* is an established game line. It doesn't sell 100,000 copies of any new release, but FASA has sold well over 5 million total copies of various *Battletech* items. *Shadowrun* is a newer, hotter property. It still is not as hot as *Wing Commander*, but its popularity has lasted about twice as long as *Wing Commander's*. My estimate is that both fall into the same ballpark as *Wing Commander*.)

### A Few Figures

I think we can expect a *Wing Commander* book to sell between 25,000 and 50,000 copies. With a royalty of 3% of retail, that gives us \$3,000 to \$6,000 per book. A \$4,000 advance (\$20,000 divided among the first five books) covers us just past the first 33,000 copies.

### A Packaging Tie-In

He can get the first book out in 18 months (worst case scenario). One attractive possibility is that we include the first novel in *Wing Commander III*, which is scheduled for this coming fall. Baen Books can get the first novel out in that time period if we go ahead and cut a contract. There would normally be a "rush charge" to get it out that quickly (not really a charge, but it would cost us somehow), but given a commitment from us to buy 75,000 or so, we could probably eliminate the rush charge. At 65% discount, that's \$1.40 a book. He thinks we might be able to bargain that down to \$1.25, since we'd be ordering so many. Of course, we'd be getting the 3% royalty on all of these, anyway (about \$0.12 per copy).

### Possible Additional Concessions

Given Fawcett's readiness to increase the proposed royalty (from 2.5% to 3%) and the advance (from \$10,000 to \$20,000), I think we could probably get a few more concessions. I would suggest:

- 1) A five-year (not ten-year) exclusive contract.
- 2) An escalating royalty: 3% for the first 50,000 copies of any book, 3.5% for the next 50,000, 4% for 100,000 to 250,000, and 5% for anything over 250,000.



## Pros and Cons

### Cons:

1) Bill Fawcett is not everyone's favorite person. He sometimes gets hack writers. He tends to have co-authored books, getting a "name" author to put his name on the book, and then getting a lesser skilled author to do the bulk of the writing.

2) If Fawcett is as eager as he seems, we might be better advised to shop around.

### Pros:

1) Fawcett does know his business. He has put together an attractive package, and going with it would spared us a lot of sweat, with a result that would probably be only marginally better.

2) In particular, he has a publisher who has already agreed to publish the series. Baen Books might simply refuse to deal with us if we tried to bypass Fawcett and work directly with Baen, and we might have a lot of trouble persuading anyone else to listen to us.

3) Not withstanding the first "Con", he has tentatively lined up Jerry Pournelle to co-author the first book, probably with Ellen Guon. We could do *far* worse. Pournelle loves *Wing Commander*, and has a high name recognition.

4) There's a chance (small) that *Wing Commander* might roll over and die within the next two years. If we wait much longer to make a deal, we might lose a lot of our potential market before we can get a book on the shelves. Moving ahead now pumps our popularity just that much more.

## My Conclusion

I think we have a good deal. It would be better if we could get the additional concessions. It would probably be better if we bundled the first book inside *WCIII*. I'd suggest going ahead with it, regardless.



## WINGLEADER

### MEDALS AND RIBBONS

Prepared June 15, 1990

=====

#### SERVICE RIBBONS

Service ribbons are not awarded for individual deeds of exceptional merit, but for service, special training and qualification, and career accomplishment. Two ribbons--Academy Graduate and Flight Training--are awarded before the campaign begins.

Academy Graduate - awarded upon graduation from the Terran Confederation Naval Academy on Proxima Centauri IV.

Flight Training - awarded upon satisfactory completion of flight school.

Vega Sector Campaign - awarded upon completion of the first mission aboard the Tigers' Claw.

Fighter Qualification Ribbons (4 total) - awarded upon completion of first mission in each of the four fighter types: Hornet, Scimitar, Raptor and Rapier.

Ace - awarded after five kills

Ace of Aces - awarded after twenty five kills

Mission Ribbons - awarded for completing five, ten and fifteen missions

#### Medals

Medals are generally awarded for deeds of exceptional merit or bravery. When a medal is awarded to the same pilot a second or subsequent time, a bar is added to the original ribbon, rather than cluttering his chest up with a bunch of redundant hardware.

The Bronze, Silver, and Gold Stars are awarded for exceptional bravery; the Bronze Star is the lowest of the three, the Gold Star the highest. Every mission in the campaign will be designated as a Bronze, Silver or Gold mission, depending upon its difficulty. Exceptional performance during a mission (probably just scoring above a certain level, according to whatever point-scheme we come up with for the game) will result in the player's winning the appropriate medal. Of course, the player has no idea how difficult a mission is, or what medal it carries, until after he has won the medal.

The Golden Sun is the Squadron equivalent of a Purple Heart--it is awarded for having your ship shot to shit, and then ejecting, without getting killed. Just getting into combat and ejecting won't do the job--you've got to keep fighting until your ship is fairly chewed up. Like the real Purple Heart, the Golden Sun is a dubious distinction. The Golden Sun is only awarded once, to keep people from wasting good ships just to win medals.

The Terran Confederate Medal of Valor, or Pewter Planet, is the highest medal awarded to military personnel. It is awarded in Wingleader only upon successful completion of the final mission in the two "best-case" final series on the campaign tree. (Successful completion of the last mission in the other three "final series" will earn a Gold Star.) The Pewter Planet is only awarded once in a lifetime.

#### RANK AND PROMOTION



At the beginning of the campaign, the PC is a 2nd Lieutenant. At the end of each mission, he is evaluated for promotion. To receive a promotion, he must achieve a total score of 7, based on the final criteria:

Missions successfully completed (ie: mission objectives were achieved regardless of casualties to either side)	1
Every five kills	1
Every wingman lost	-1
Every ship lost because PC ejected	-1
Random factor representing military foolishness	0-5

At the end of the mission, a total score is calculated; if the result is greater than 7, the character is promoted and the promotion score wiped clean. Otherwise, the value (less the random factor, which is re-rolled with every check) is saved for the next check, immediately following the next mission.

Ranks available to the player are:

- 2nd Lieutenant\* (Gold Bar)
- 1st Lieutenant (Silver Bar)
- Captain (2 Silver Bars)
- Major (Gold Oak Leaf Cluster\*\*)
- Lt. Colonel (Silver Oak Leaf Cluster\*\*)

\* 2nd Lieutenant is starting rank.

\*\* Glen hasn't done the Oak Leaves yet, and I doubt they'll work well in the picture anyway--they'd be awfully hard to distinguish on the guy's shoulders. As an alternate plan, we might stick to bars, with the following progression:

- Captain (2 Silver Bars)
- Major (3 Gold Bars)
- Lt. Colonel (3 Silver Bars)

or:

- Captain (2 Silver Bars)
- Major (3 Silver Bars)
- Lt. Colonel (Gold Planet or Comet)
- Colonel (Silver Planet or Comet)

In any case, Lieutenant Colonel is the highest rank you can achieve as a player in Wingleader; the squadron commander is a colonel.

Wing Commander/Wing Leader/Commander

```
/*-----*/
/*----- Imperial ships -----*/
/*-----*/
```

```
{
/* -----*/
/* Hornet - Imperial light fighter */
/* -----*/
/* Name */          "Hornet",
/* Class */         ship,

/* Radius */        100, 10 = length in Meters
/* Mass */          125, tonnes
/* Max scale */     64000
/* Power plant */   5, = 10000 kgs/ms thrust
/* Fuel tank */     200000, = 1000000 gallons
/* Damage */        5, = structural hits (classify weak, ...)
/* Explosive */     10000

/* Max vel */       50, x 10 = kps kilometers per second
/* Cruise vel */    35,
```

```
/* Child data ptr */ NULL,

/* Max Accel */     IntFract(3.2), x10 kps2
/* Max yaw */       8, = 80 degrees/s
/* Max pitch */     8,
/* Max roll */      8,
/* Angular inertia */ 200,
```

High #s are good.  
degrees/second  
(do 0-X kps)  
or poor, good, etc.  
or arbitrary #

```
/* Weapon list */
{
  5,
  {
    {laser_cannon, 0, selected},
    {laser_cannon, 1, selected},
    {heat_seeking_missile, 4, selected},
    {heat_seeking_missile, 5, inactive},
    {heat_seeking_missile, 6, inactive}
  }
},
```

```
/* Fore shield */ 30,
/* Aft shield */ 30,
/* Front armor */ 30,
/* Right armor */ 30,
/* Left armor */ 30,
/* Rear armor */ 30,
},
```

} Armor rating. For armor, each 10 = 1" of durakal plating

```
{
/* -----*/
/* Rapier - Imperial light fighter */
/* -----*/
/* Name */          "Rapier",
/* Class */         ship,

/* Radius */        120,
/* Mass */          135,
/* Max scale */     0x400,
/* Power plant */   3,
/* Fuel tank */     225000,
/* Damage */        6,
/* Explosive */     12000,

/* Max vel */       55,
/* Cruise vel */    40,

/* Child data ptr */ NULL,
```



```

/* Power plant */      3,
/* Fuel tank */      225000,
/* Damage */      6,
/* Explosive */      12000,

/* Max vel */      55,
/* Cruise vel */      40,

/* Child data ptr */  NULL,

/* Max Accel */      IntFract(4.2),
/* Max yaw */      10,
/* Max pitch */      10,
/* Max roll */      10,
/* Ang Inertia */      1000,

/* Weapon list */
{
    7,
    {
        {mass_driver_cannon, 0, selected},
        {mass_driver_cannon, 1, selected},
        {neutron_particle_gun, 2, inactive},
        {neutron_particle_gun, 3, inactive},
        {image_recognition_missile, 4, inactive},
        {FF_missile, 5, selected},
        {FF_missile, 6, inactive}
    }
},

/* Fore shield */      70,
/* Aft shield */      70,
/* Front armor */      50,
/* Right armor */      30,
/* Left armor */      30,
/* Rear armor */      40,
},

{
    /* -----*/
    /* Scimitar - Imperial medium fighter */
    /* -----*/
    /* Name */      "Scimitar",
    /* Class */      ship,

    /* Radius */      125,
    /* Mass */      160,
    /* Max scale */      0x400,
    /* Power plant */      4,
    /* Fuel tank */      200000,
    /* Damage */      7,
    /* Explosive */      14000,

    /* Max vel */      45,
    /* Cruise vel */      30,

    /* Child data ptr */  NULL,

    /* Max Accel */      IntFract(3.0),
    /* Max yaw */      7,
    /* Max pitch */      7,
    /* Max roll */      7,
    /* Ang Inertia */      1300,

    /* Weapon list */
    {
        6,
        {
            {mass_driver_cannon, 5, selected},
            {mass_driver_cannon, 6, selected},
            {mass_driver_cannon, 7, selected},
        }
    }
}

```

```

/* Cruise vel */          30,

/* Child data ptr */ NULL,

/* Max Accel */           IntFract(3.0),
/* Max yaw */             7,
/* Max pitch */           7,
/* Max roll */            7,
/* Ang Inertia */         1300,

/* Weapon list */
{
    6,
    {
        {mass_driver_cannon, 5, selected},
        {mass_driver_cannon, 6, selected},
        {dumb_fire_missile, 0, selected},
        {dumb_fire_missile, 1, inactive},
        {heat_seeking_missile, 2, inactive},
        {heat_seeking_missile, 3, inactive}
    }
},

/* Fore shield */         40,
/* Aft shield */          40,
/* Front armor */         60,
/* Right armor */         50,
/* Left armor */          50,
/* Rear armor */          60,
},

{
/* -----*/
/* Raptor - Imperial heavy fighter */
/* -----*/
/* Name */                "Raptor",
/* Class */               ship,

/* Radius */              180,
/* Mass */                200,
/* Max scale */           0x400,
/* Power plant */         3,
/* Fuel tank */           300000,
/* Damage */              8,
/* Explosive */           18000,

/* Max vel */             60,
/* Cruise vel */          30,

/* Child data ptr */ NULL,

/* Max Accel */           IntFract(2.7),
/* Max yaw */             5,
/* Max pitch */           5,
/* Max roll */            7,
/* Ang Inertia */         2000,

/* Weapon list */
{
    5,
    {
        {laser_cannon, 0, selected},
        {laser_cannon, 1, selected},
        {neutron_particle_gun, 4, inactive},
        {image_recognition_missile, 5, selected},
        {image_recognition_missile, 6, inactive}
    }
},

/* Fore shield */         50,
/* Aft shield */          50,
/* Front armor */         90,
/* Right armor */         80,
/* Left armor */          80,
/* Rear armor */          90,
},

```

3" extra durasteel armor over  
Hornet.



✓ Ferret	10.2 meters	(30ft)	<P-64C Ferret>
✓ Epee	12.4 meters	(40ft)	<F-54C Epee>
✓ Rapier	19 m	(57ft)	<F-44G Rapier>
✓ Sabre	23.6 m	(71ft)	<F-57A Sabre>
✓ Broadsword	36 m	(108ft)	<A-17D Broadsword>

✓ Concordia 983.7 m B. 141.52 m

✓ Waterloo Cruiser 503.9 m B. 55.8 m

✓ Gilgamesh Dest. 312.1 m B 44.5

✓ Clydesdale Trans. 733 m B 8.2

✓ Free Trader 83 m B 9.03

\*

- ✓ Ferret : P-64C Ferret ~~Light~~ Patrol Fighter
- ✓ Epee : F-54C Epee Light Attack Fighter
- ✓ Rapier : F44G Rapier Medium Attack Fighter
- ✓ Sabre : F-57A Heavy Attack Fighter
- ✓ B.S. : A-17D B.S. Heavy Bomber



✓ SARTHA : 8.3

✓ Drakhri : 11.7 m

✓ Jalkehi : 25.2 m

✓ Grikath : 17.7 m

✓ ~~Blood~~ Bloodfang : (experimental) 19.7 m

~~Rigakh Carrier : 1117 m B 236 ?~~

✓ Kamakh Corvette : 135m

✓ Kalatha Dest. : 394m B 67

✓ Thalthea Cruiser : 612 m B 92

✓ Dorakathi Frigate : 95m B 17.

What about K'tikrak Rang? 1100m radius

~~Strakha 34m~~

Supply Depot 800m



# READ THIS FIRST!

## WING COMMANDER

The 3-D Space Combat Simulator

### Quickstart, Installation Guide and Tech Specs

This description of a *Wing Commander* mission is all you need to begin. No mission can be duplicated precisely by each player, but follow it as closely as possible to familiarize yourself with the game. **NOTE:** We assume you have a joystick and hard drive. If you don't, consult your reference card for equivalent keyboard or mouse commands.

#### QUICK INSTALL

1. Insert disk 1 in your disk drive (usually A: or B:)
2. Type the drive letter followed by a colon (A: or B:). Press **<ENTER>**
3. Type **INSTALL <ENTER>** and follow the on screen prompts until installation is complete. See the "Installation Guide" (page 3) for details.
4. If you want to install onto a hard disk that has 6 Mb + disk space free, you are asked if you prefer to Save Time (longer installation time/faster game play) or Save Space (shorter install/less disk space). Make your choice, press **<ENTER>**.

#### YOUR FIRST MISSION

##### Beginning Play

1. When installation is complete, type:  
**WC <ENTER>** at the C:\WING prompt.
2. The opening sequences appear. Press the joystick button to exit these sequences.  
**If the game doesn't load, skip the rest of this mission** and turn to the "Installation Guide and System Requirements," below. If that doesn't help, refer to "Technical Support and Troubleshooting."
3. You are asked a question from the game documentation or blueprints. Type in your answer (always a number). Press **<ENTER>**.
4. Two bars appear on the screen: "Start Vega Campaign" and "Start Secret Missions." Calibrate your joystick by using it to move the pointer clockwise around the outer edge of the screen, touching all four corners. Then position the pointer over "Start Vega Campaign" (the blue pointer turns into a green cross). Press button #1.

##### Aboard the *Tiger's Claw*

5. The TrainSim unit is displayed. After a few seconds, the words "Game Over" appear. Type a name **<ENTER>** and callsign **<ENTER>** when prompted (use any name and callsign you choose). Click joystick button #1.
6. In the Bar, talk to the bartender by moving the pointer over him. When the blue pointer turns into a green cross, click joystick button #1. You can let the conversation progress or click the joystick button to speed it along. After your talk, you return to the Bar. Follow the same procedure to talk to the pilots seated on the right or to check the chalkboard on the wall. Click again to return to the Bar.
7. Click on the right-hand door labeled "Barracks." Move the pointer over an empty bunk and click. The words "Game Name:" appear. Type a name to identify this game and press **<ENTER>**. A sleeping pilot appears in the bunk, indicating that slot now contains a saved game.
8. Move the pointer to the far right door and the words "Mission Hangar" appear. Click on the door to go to your first mission briefing. When it's done, you automatically launch into space.



*If you die during a mission, watch the funeral sequence. When the titles roll, press button #1 and select "Continue Campaign." Click on the feet of the sleeping pilot in the barracks and go to the mission hangar and try the same mission again.*

#### In the Cockpit

9. In space, pause the game by pressing "P". Resume play by pressing button #1 or any key. Press the "N" key to view the mission map. Note that Nav 1, your destination, is highlighted in yellow. Press <ESCAPE> or button #1 to return to the cockpit.
10. Note the white cross on the radar screen and in your viewscreen. Maneuver your ship until the cross is centered. (See pg. 41 in Claw Marks). Press the "A" key to activate autopilot and fly to Nav 1.

11. You drop from autopilot to battle Kilrathi ships before you've reached Nav 1. Your wingman, Spirit, says she's spotted the enemy. Press "C" to activate communications and press "I" twice to tell her to attack.
12. Press the "+" (plus) key to increase speed to about 420 KPS.

13. The red dots in your radar screen are enemy ships. The blue dot is your wingman. Maneuver until the enemy ships are in the center circle of the radar display.

14. Press "T" to activate your targeting computer. Red brackets appear around one of the enemy ships and the image of a Dralithi medium fighter appears in the right VDU (the video display unit in the lower right corner of the cockpit). Press "L" to lock this Dralithi as your target. The brackets turn into a solid rectangle. (If you kill your locked target, target another ship and press "L" again to lock onto him.)

15. Press "W" to select a Javelin HS heat-seeking missile. You may need it later!

16. Press button #1 repeatedly to fire your laser cannon. Use the joystick to center your target in the green crosshairs on your viewscreen. If your target runs away, double click button #2 to fire your afterburners and put on a burst of speed.

17. As your blasts hit, damaged parts of the Dralithi turn red on the right VDU.

18. If you maneuver your ship behind a target a red circle and crosshairs indicate a missile lock. When the words "Missile Locked" appear in the right VDU, press both joystick buttons at once to launch your missile. (This might take some practice.)

19. Continue fighting until you defeat all of the enemy ships. (This may take a few tries.)

20. When all of the enemy ships have been destroyed or have fled, go to Nav 1 by pressing the "N" key to re-enter navigation mode. Center the white cross and press "A." Center the cross again and fly until "Objective Reached" appears in the right VDU.

21. Once you reach your objective, the next Nav point is selected automatically. (Press "N" and you see that Nav 2 is highlighted in yellow.) Autopilot to it by pressing "A."

22. You'll find yourself in an asteroid field before reaching Nav 2. If going over 250 KPS, press the "-" (minus) key to fly through and avoid the asteroids at about 250 KPS.

23. When you leave the asteroids, center the white cross, press "A" to reactivate autopilot, and go to the next Nav point.

24. You will soon be in another dogfight. When all enemies have been defeated, press "N" and "A" until you emerge from autopilot at Nav 3. Maneuver through another asteroid field, then fly to the *Tiger's Claw* by engaging the autopilot.

#### Near the *Tiger's Claw*

25. Slow for landing. Press "T" to target the Claw. Press "C" and "Z" to contact the Claw and "I" to request landing clearance.

26. Head to the front of the Claw, and watch your landing and debriefing. Then, you'll be sent back to the Bar where you can talk, fly the TrainSim, check your score, or head for the barracks to save a game or exit to DOS.

27. Congratulations! You've completed your first mission. Read through the reference card and documentation to master the Wing Commander game.

## INSTALLATION GUIDE & SYSTEM REQUIREMENTS

This information is for those who had trouble installing and/or running the game during the QuickStart.

If installing to floppies, make one blank, formatted floppy disk for each original disk that came with your game.

- 5.25" high-density disks: Three (3) blank, formatted disks
- 5.25" low-density disks: Six (6) blank, formatted disks
- 3.5" low-density disks: Eleven (11) blank, formatted disks

1. Insert your original Disk 1 into a floppy drive. (usually A: or B:)

2. Type the drive letter followed by a colon (Ex: A:), then <ENTER>.

3. Type **INSTALL <ENTER>**.

Throughout the install process, you will be prompted to insert the original game disks. After inserting a disk, press <ENTER>. Use the arrow keys or press one of the red letters to highlight the desired configuration option. Press <ENTER> to select.

To abort installation, press the <ESCAPE> key. This returns you to DOS.

#### The Installation Screen

- 1) The current configuration is displayed at the top of your screen.

- 2) The bottom of the screen lists which keys can be pressed and their function.

- 3) Windows appear in the middle of the screen allowing you to change the default configuration information.

#### Step 1: Selecting the Destination Drive and Path

When you begin, a window appears displaying the available disk drives and asks you to pick the drive to which you want to install the game. Press the corresponding drive letter (A, B, C, etc.) and then <ENTER>.

• **Floppy Disk Users:** You can't play Wing Commander from the original game disks. The installation process copies information from the original disks to the formatted disks you prepared earlier. Select the drive letter of the drive in which you will insert your blank disks.

• **Hard Disk Users:** You will be asked to enter the path name or subdirectory for the game. Our default subdirectory (WING) will work for nearly everyone. If you want, however, you can enter a different path name. Once you have typed in the name (or to select our default name) press <ENTER>.

At one point a window may appear asking if you prefer to Save Time during play (unpack 1 the files) or Save Space on your hard disk (leave the files packed). Select the option you want and press <ENTER>. If you have insufficient hard disk space to unpack the files, you are not given this option and the files remain packed.

1) Packing stores a great deal of information in little disk space (4 megabytes of free hard disk space). Unpacking the files requires more disk space (approx. 6 megabytes) and takes anywhere from 5 to 20 minutes initially, but it speeds game play from then on.

#### Step 2: Selecting the Graphics Mode

A window appears offering you a choice of graphics modes. Highlight the mode that matches your computer's video system, then press <ENTER>.

#### Step 3: Selecting the Sound System

Wing Commander does not require a sound board, but you *must* have a sound board installed to hear the Wing Commander music.

If you have a Roland MT-32 /LAPC-1, an Ad Lib, or a Sound Blaster, highlight the sound board installed in your computer. If you do not have a sound board, highlight "PC Speaker" (sound effects only) or "No sound." Press <ENTER>.

#### Step 4: Completing the Installation Process

You will be asked if the configuration at the top of the screen is correct. If not, press "N" and the options as you prefer. If so, press "Y" and the installation program copies files onto the selected drive. Insert original disks when prompted. When the install process is finished, make sure you are in the Wing Commander directory (WING) if you selected the default type WC <ENTER> to begin playing.

**IMPORTANT:** If you're instructed to re-insert disk 1, be sure you return it to the drive it was originally in. If you remove it from drive A:, you must return it to drive A:. You can't replace it in any other drive.

#### Changing your Configuration

If you ever upgrade to a different graphics mode, add RAM memory, or add a sound board, follow the directions above and re-install Wing Commander.

#### Memory Usage

Regardless of the amount of RAM memory in your machine, you must have between 529000 and 583000 bytes free to run Wing Commander. The amount of free RAM necessary depends on whether you have a sound board and/or expanded memory. See the System Configuration List, below.

Run the DOS program, CHKDSK, and look at the last line of the information presented. This tells you how much RAM memory is free. For example, CHKDSK might tell you that your 640K system has 519490 bytes free. If you have less than the minimum listed for your system on the System Configuration List, you do not have enough free RAM and the game will not run.

Wing Commander utilizes extra free RAM memory to enhance game play. You may want to remove from your AUTOEXEC.BAT and CONFIG.SYS startup files memory-resident programs that are unnecessary for system usage. If you do not want to reconfigure your system, we suggest making a bootable DOS system floppy disk to start your computer prior to play. Refer to your DOS manual for the procedure to create a startup diskette.

#### Expanded Memory

Memory beyond 640K can be allocated as "expanded memory" which the game uses to enhance graphics and sound. During the install process and when loading the game, you will be told if expanded memory was detected. Expanded memory is *not* the same as "extended memory" — if your computer has *extended* memory, reconfigure it as *expanded* memory.

To access expanded memory, you must use an expanded memory manager program.

Two of the most common ones are QEMM.SYS (which comes with Quarterdeck's Desqview) and EMM386.SYS (which comes with Microsoft Windows), but there are others. These memory managers are installed by adding a line to the CONFIG.SYS file on your computer. Consult your expanded memory manager's documentation for information about installing expanded memory and determining how much expanded memory is available for use.

## SYSTEM CONFIGURATION LIST

The following summarizes how Wing Commander uses memory:

#### Without Expanded Memory

- 1) **No Sound/PC Speaker only:** At least 552000 bytes free RAM
- 2) **Roland MT-32 and LAPC-1 music boards:** At least 551000 bytes free RAM for limited music 1, 577000 bytes free for full music 2
- 3) **Ad Lib and Sound Blaster music boards:** At least 557000 bytes free RAM for limited music; 583000 bytes free for full music

1. Limited Music: Music is played only around the Tiger's Claw.

2. Full Music: Music is played throughout the game.



557000

These RAM amounts represent the minimum required. Free RAM beyond the minimum is used for graphics which would otherwise not appear. Wing Commander loads as many "RAM graphics" as possible: Hyperspace Warp Flash (extra 5K); Large Explosions (25K); Small Explosions (11K); Large Debris (24K).

**With Expanded Memory**

- 1) No Sound/PC Speaker only (400K Expanded Memory): At least 550000 bytes free RAM; all RAM graphics; pilot's hand and joystick.
- 2) No Sound/PC Speaker only (400K Expanded Memory): At least 550000 bytes free RAM; all RAM graphics; pilot's hand and joystick, plus disk caching.
- 3) Roland MT-32 and LAPC-1 music boards (100K Expanded Memory): At least 551000 bytes free RAM; full music, pilot's hand and joystick; no RAM graphics.
- 4) Roland MT-32 and LAPC-1 music boards (300K Expanded Memory): At least 520000 bytes free RAM; all RAM and EMS graphics 2 and full music.
- 5) Roland MT-32 and LAPC-1 music boards (500K Expanded Memory): At least 520000 bytes free RAM; all RAM/EMS graphics, full music, and disk caching.
- 6) Ad Lib and Sound Blaster music boards (100K Expanded Memory): At least 557000 bytes free RAM; full music; no RAM graphics.
- 7) Ad Lib and Sound Blaster music boards (300K Expanded Memory): At least 535000 bytes free RAM; all RAM/EMS graphics 2 and full music.
- 8) Ad Lib and Sound Blaster music boards (500K Expanded Memory): At least 535000 bytes free RAM; all RAM/EMS graphics, full music, disk caching.

1) Disk Caching: Loads more graphics into memory, reducing disk access and speeding game play.  
2) EMS Graphics: You see your pilot's hand and joystick move as you move your hand and joystick; cockpit sparks, loose wires, etc. as you take damage; the faces of wingmen and enemies who communicate with you.

**TECHNICAL SUPPORT & TROUBLESHOOTING**

**PROBLEM: Wing Commander fails to load or run properly:**

- You may not have sufficient free RAM memory. Run CHKDSK to check your computer's available RAM. Compare this to the amount of free RAM required for your computer/sound board system. Free-up RAM if needed.
- You may have a memory-resident TSR program that conflicts with the game. Boot the computer from a DOS system floppy or remove memory resident programs before running the game.
- You may have chosen an invalid configuration during the install process. Check your configuration and, if necessary, reinstall Wing Commander.
- You may have filled all free space on the active disk drive. Use the DOS "DIR" command to check available disk space.
- You may have incorrectly answered a copy protection question. This returns you to DOS and you must begin again.

**PROBLEM: The arrow pointer doesn't respond properly:**

- Your joystick may need to be calibrated. On the screen offering you the choices, "Start Vega Campaign," etc., use your joystick to move the pointer clockwise around the screen from the upper left-hand corner. The joystick should respond normally.
- The game supports the Microsoft Mouse and Microsoft Mouse driver, version 7.0. Other mouse brands and drivers may not be compatible.

**PROBLEM: The game runs slowly. Ship movement is jerky:**

- You may have had too little free space on your hard drive to unpack the game files. Free up 6 megabytes of hard disk space and re-install.
- PC speaker sound effects slow play. Select "No Sound" when installing.
- Your computer may not be fast enough to run the game efficiently. The preferred configuration is a 16 megahertz (or faster) IBM PC/100% compatible 386-based ma-

**READ THIS FIRST!**

**WING COMMANDER**

The 3-D Space Combat Simulator

**Quickstart, Installation Guide and Tech Specs**

This description of a Wing Commander mission is all you need to begin. No mission can be duplicated precisely by each player, but follow it as closely as possible to familiarize yourself with the game. **NOTE:** We assume you have a joystick and hard drive. If you don't, consult your reference card for equivalent keyboard or mouse commands.

**QUICK INSTALL**

1. Insert disk 1 in your disk drive (usually A: or B:).
2. Type the drive letter followed by a colon (A: or B:). Press <ENTER>
3. Type **INSTALL** <ENTER> and follow the on screen prompts until installation is complete. See the "Installation Guide," (page 3) for details.
4. If you want to install onto a hard disk that has 6 Mb + disk space free, you are asked if you prefer to Save Time (longer installation time/faster game play) or Save Space (shorter install/less disk space). Make your choice, press <ENTER>.

**YOUR FIRST MISSION**

**Beginning Play**

1. When installation is complete, type:  
**WC <ENTER>** at the C:\WING prompt.
2. The opening sequences appear. Press the joystick button to exit these sequences.  
**If the game doesn't load, skip the rest of this mission and turn to the "Installation Guide and System Requirements," below. If that doesn't help, refer to "Technical Support and Troubleshooting."**
3. You are asked a question from the game documentation or blueprints. Type in your answer (always a number). Press <ENTER>.
4. Two bars appear on the screen: "Start Vega Campaign" and "Start Secret Missions." Calibrate your joystick by using it to move the pointer clockwise around the outer edge of the screen, touching all four corners. Then position the pointer over "Start Vega Campaign" (the blue pointer turns into a green cross). Press button #1.

**Aboard the Tiger's Claw**

5. The TrainSim unit is displayed. After a few seconds, the words "Game Over" appear. Type a name <ENTER> and callign <ENTER> when prompted (use any name and callign you choose). Click joystick button #1.
6. In the Bar, talk to the bartender by moving the pointer over him. When the blue pointer turns into a green cross, click joystick button #1. You can let the conversation progress or click the joystick button to speed it along. After your talk, you return to the Bar. Follow the same procedure to talk to the pilots seated on the right or to check the chalkboard on the wall. Click again to return to the Bar.
7. Click on the right-hand door labeled "Barracks." Move the pointer over an empty bunk and click. The words "Game Name" appear. Type a name to identify this game and press <ENTER>. A sleeping pilot appears in the bunk, indicating that slot now contains a saved game.
8. Move the pointer to the far right door and the words "Mission Hangar" appear. Click on the door to go to your first mission briefing. When it's done, you automatically launch into space.

chine with 2 megabytes total memory, 256-color VGA graphics, a joystick, a Roland MT-32 or LAPC-1 sound board, and a hard disk with at least 6 Mb+ free. Some older and/or slower machines may not be powerful enough to provide the full experience.

If movement in space seems slow, press Ctrl <PLUS> until the speed seems right to you. This causes the game to skip animation frames during maneuvering, speeding up play while making movement a little less smooth. For smoother movement, press Ctrl <MINUS> until the game looks right. This adds frames, resulting in slightly slower, smoother play.

**PROBLEM: I can't figure out how missiles work:**

- With the dumb-fire missile you line up a target by eye. Fire using the key/button combination described in the reference card.
- The heat-seeking missile automatically locks on a target when you're on his tail. When lock is possible, a red circle, the lock indicator, appears in your viewport. Maneuver until this is positioned on your target. When the lock indicator blinks and the words "Missile Locked" appear in the right VDU screen, fire the missile using the appropriate key/button.
- The image recognition missile automatically locks on a target when you've held it in the viewport for a few seconds. Wait until the red, circular lock indicator appears, then fire using the appropriate key/button.
- The friend or foe missile automatically targets the nearest enemy ship. Press the fire key/button and it seeks out the closest enemy (or the nearest ship with a damaged communication system).

**PROBLEM: I can't copy my high density originals to low density disks:**

- You can only copy to disks with the same or higher capacity than the disks you are copying from.
- You can't copy from a high-density disk to a low-density disk, but you can copy a 1.2 Mb 5.25" floppy to another 5.25" high-density disk or a 1.44 Mb 3.5" disk.
- If, for example, you have the low-density 5.25" (360K) version of the game, you can copy two 360K disks to a single 720K 3.5" disk. You can even copy three 360K disks to a single high-density 5.25" or 3.5" disk.
- You must copy whole disks. *Never split the files found on a single original disk by copying partial disks or individual files.*

**CALLING CUSTOMER SERVICE**

If you can't solve a Wing Commander problem, call ORIGIN Customer Service at (512) 328-0282, Mon.-Fri. 9 a.m. - 5 p.m., Central time.

When calling, please have the following information ready (if possible):

Machine type, graphics mode, sound boards, mouse joystick type; RAM memory installed; expanded memory, if any; which version of DOS you use; the contents of your AUTOEXEC.BAT and CONFIG.SYS files; whether you use Windows, Desqview, or a DOS shell.



P.O. Box 161750 • Austin, Texas 78716

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## SQUADRON Missions

Prepared 4-3-90

Updated May 14, 1990

by Jeff George

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Missions will be of two types in Squadron--Training and Campaign. Training missions may be played at any time, but campaign missions will be available only when the player has begun a campaign game--a series of interconnected missions, which represent the player's participation in the human-Kilrathi war.

### Training Missions

Training missions are mock-battles. The player will initially fly only one type of Imperial starfighter. As the campaign progresses, and the player is assigned to flight duty on different types of ships, he will be allowed to train using these new types of ships. This allows him to practise without risking the Empire's very expensive hardware.

I would recommend that we bill these training missions as computer-simulations, rather than actual flights using real ships. The first argument for this is logical--in an age of interstellar exploration and conflict, computer technology will certainly have advanced to the point that perfectly realistic simulations will be possible. Why would the Empire build elaborate unmanned drones, which require constant replacement, when a computer simulation would be as effective a training tool and far less expensive.

The second reason is for the opportunity it gives us to provide a wide and ever-changing variety of simulated missions. As the campaign progresses, new ships become available to the player, and new enemy ships become known to the Empire. Both of these factors can be used to increase the variety of simulated missions, as new ship types are entered into the computer.

Presentation of Training Missions: Rather than having a set of canned missions, I'd propose we let the player build his own training missions using a series of menus.

The first menu would let the player choose the mission type, with the following options:

- Intercept
- Escort
- Defense
- Strike

The next menu would allow the player to choose the type of ship he will fly. At the beginning of the game, he may fly only one, perhaps two, types of ship. As he is assigned to new ship types, he will be given the opportunity to train with them as well. I'd recommend we allow the player to choose initially between a small, swift, but lightly armed and armored light fighter and a less nimble, but more heavily armed fighter. The heavy fighter and the second medium fighter will be reserved for more



experienced pilots.

The third menu lets you choose the enemy fighters you will face, as well as the skill level of their pilots. Both Imperial and Kilrathi ships will be available as enemies, though only Imperial ships are available for the training pilots to fly themselves. A "no enemy fighters" option will allow the player to attack larger enemy vessels without the interference of fighters.

The fourth menu allows you to choose the attacker's target, if any.

<u>Intercept</u>	<u>Strike</u>	<u>Escort</u>	<u>Defense</u>
None	Battleship	Transport	Battleship
Transport	Carrier	Tanker	Carrier
Tanker	Space Station	Attack Ship	Space Station
Attack Ship		Bombers	
Bombers			

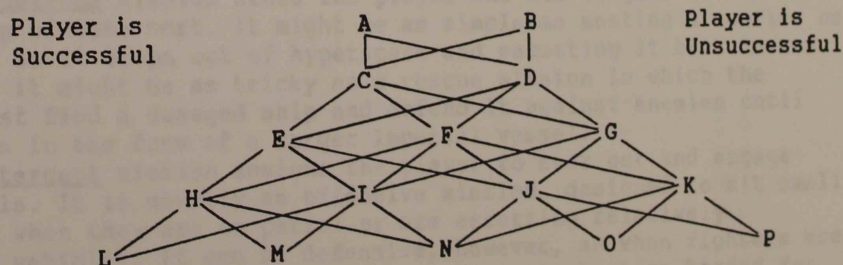
The final menu lets you select ship options, choosing between standard and unlimited armor, weaponry, and fuel.

#### Campaign Missions

Campaign Flow. The campaign game in Squadron lets the player fight a series of battles in the Imperial-Kilrathi war. The player's success on his missions will be used as a yardstick to measure the general success of the humans in the war, so the player actions will affect the direction of the game.

The campaign missions are divided into 16 series of 2-4 missions each, for a total of roughly 45 missions. After he has flown all the missions in one series, the player will be faced with another series. His success in one series will determine which of several series he will be shunted into next.

The series link together like this:



The player begins by flying series A, if he chooses assignment to a light fighter wing, or B, if he chooses assignment to a medium fighter wing. If he does well on his missions in one series, he will be routed to the left on the above chart as time passes; if he does poorly, he will be routed to the right. Obviously, the final mission in series L might be a triumphant assault on the Kilrathi Supreme Headquarters, while the final



mission in series P might be a desperate defense of the human HQ.

Mission Format. Training missions involve a relatively simple set of introductory screens and briefings. Campaign missions, on the other hand, will have full briefing room scenes, with full mission briefing, reaction shots of various pilots, and intelligence reports on enemy ships and personnel (sometimes including video of enemy actions).

A more significant difference between training and campaign missions is in the length and complexity of the missions. While a training mission consists of a single encounter with an enemy ship or squadron, campaign missions can involve a number of encounters with different sorts of ships. This will allow us to build extended missions with multiple objectives.

We may also want to consider using third-person, non-interactive shots of the player and his wingman flying through space to indicate the passage of any significant amount of time between encounters. This would allow us to design "staged" scenarios, such as a desperate flight home in an already damaged ship, with fresh enemies in hot pursuit.

Mission Types. There are several types of missions that may be flown in Squadron, though in the campaign game, the player will not (usually) be allowed to choose what mission he will fly. The missions listed above, for training, are indicative of the types of missions we can have in the campaign game, though we can make them much more involved and unique in the context of a campaign.

Typical mission types will include Patrol, Rendezvous, Intercept, Escort, Strike, and Defense. These general types can be varied considerably, as described below:

A Patrol mission involves one or two ships flying a reconnaissance mission. It might be within Imperial territory, guarding against enemy encroachment, or in unexplored or enemy territory, in search of vital intelligence. Ships on patrol might encounter enemy fighters, spot larger enemy ships, be ambushed in or near asteroid fields, etc.

A Rendezvous mission sends the player and his wingman out to meet another ship of some sort. It might be as simple as meeting a courier or supply ship as it drops out of hyperspace and escorting it back to the carrier, or it might be as tricky as a rescue mission in which the fighters must find a damaged ship and defend it against enemies until help arrives in the form of a larger Imperial vessel.

An Intercept mission assigns the player to seek out and engage enemy vessels. It is usually an offensive mission, designed to hit small enemy ships when they are on patrol or are escorting relatively defenseless vehicles. It can be defensive, however, as when fighters are dispatched to intercept incoming squadrons of enemy bombers headed for the carrier or other large target.

On an Escort mission, the player must defend use his ship to defend a more vulnerable vessel against enemy attack. There is usually some sort of pre-determined route for an escort mission. One mission might require the player to escort a courier ship from the carrier to its hyperspace jump point, while another might have the PC escorting larger warships,

=====  
Mission Structure and Outlines  
Page 3



like bombers, to their target and back.

A Strike mission is a direct offensive against the enemy, usually aimed at a large target such as a big warship or a space station. A strike will be one of the more complex missions, involving large numbers of craft on both sides. The player will likely be part of a wing of four or six ships, rather than flying alone or with a single wingman. A Strike may involve several waves of enemies in a variety of ships, as the attacking wing penetrates succeeding perimeters of the enemy defense.

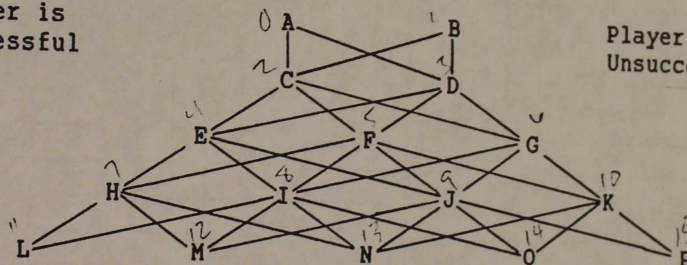
A Defense mission is the opposite of a strike--the player is part of the force defending a large and vulnerable target against attacking starfighters and warships. A defense may be well-coordinated, if the enemy attack was anticipated, or it may be rushed and chaotic, when the enemy attack came by surprise.

### Brief Mission Descriptions for Campaign Game

#### Mission Structure

Player is  
Successful

Player is  
Unsuccessful



<u>Series</u>	<u>Ship</u>	<u>Missions</u>
A	Light Ftr	1. Patrol - encounter 3 LF, then 2 MF 2. Escort - accompany troopship to jump point; encounter 3 LF
B	Med Ftr	1. Patrol - encounter 2 MF, then 4 LF 2. Intercept - destroy enemy tanker; 3 MF defend
C	LF/MF	Optional Reassignment to LF or MF 1. Patrol - encounter 3 MF, then 2 LF & 1 HF 2. Strike - corvette; 3 LF intercept, 2 MF defend 3. Rendezvous - meet supply ship at jump point; 4 LF attack at jump point, 3 HF closer in to carrier
D	LF/MF	1. Patrol - encounter 2 LF, then 1 HF 2. Defend - carrier; 3 MF attack carrier 3. Rendezvous - meet supply ship at jump point; 2 HF attack at jump point, 4 LF closer to carrier

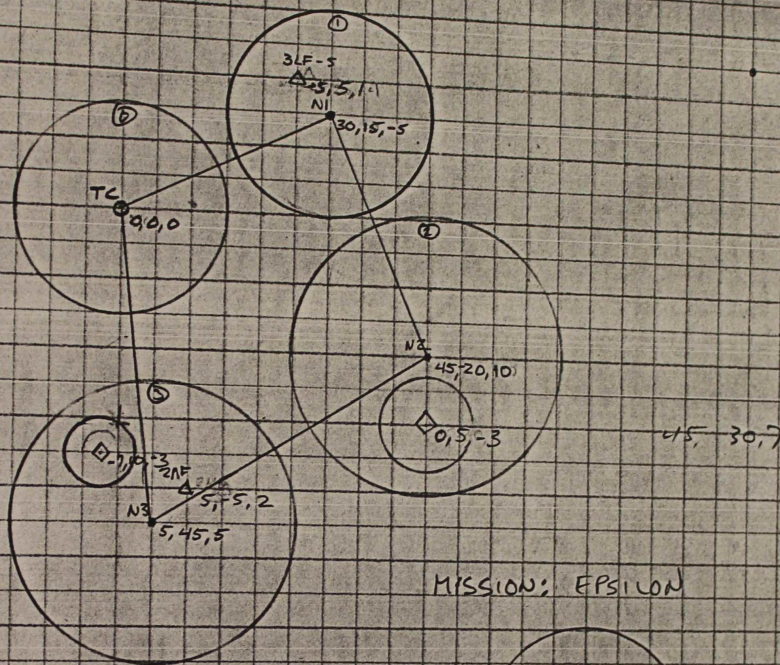


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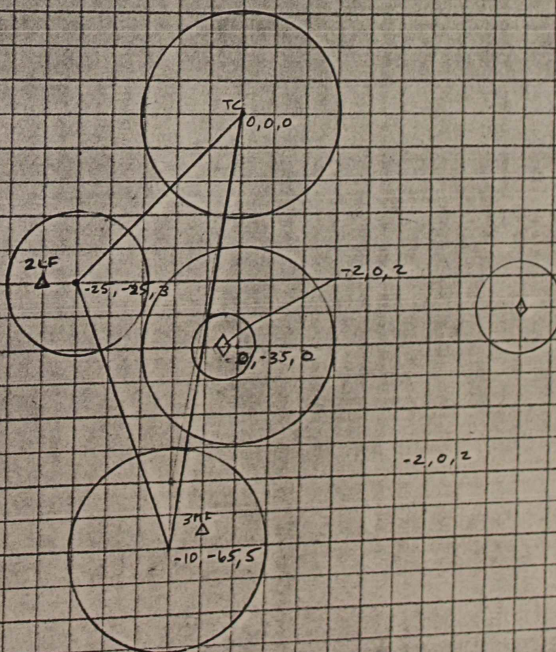
PL SHIP - HORNET

MISSION: ALPHA

A  
B  
C  
D



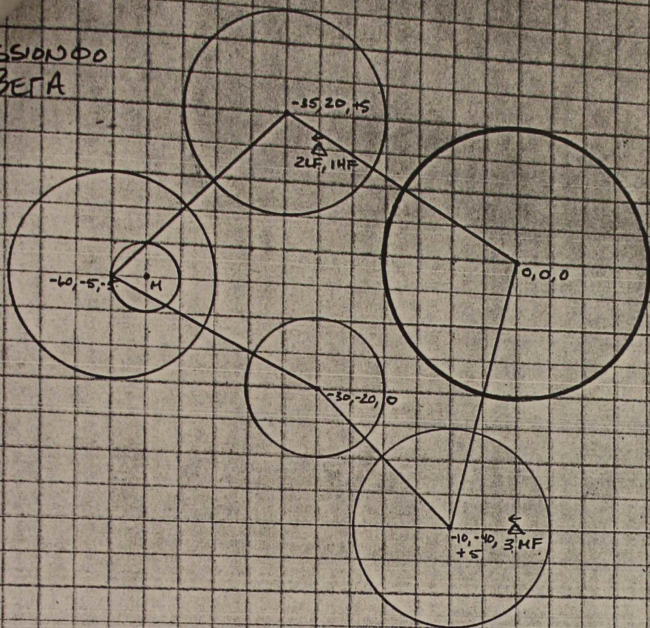
MISSION: EPSILON



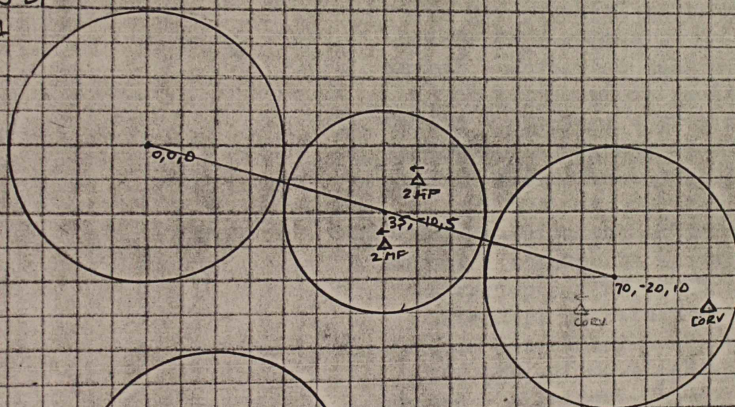


MISSION 00  
BETA

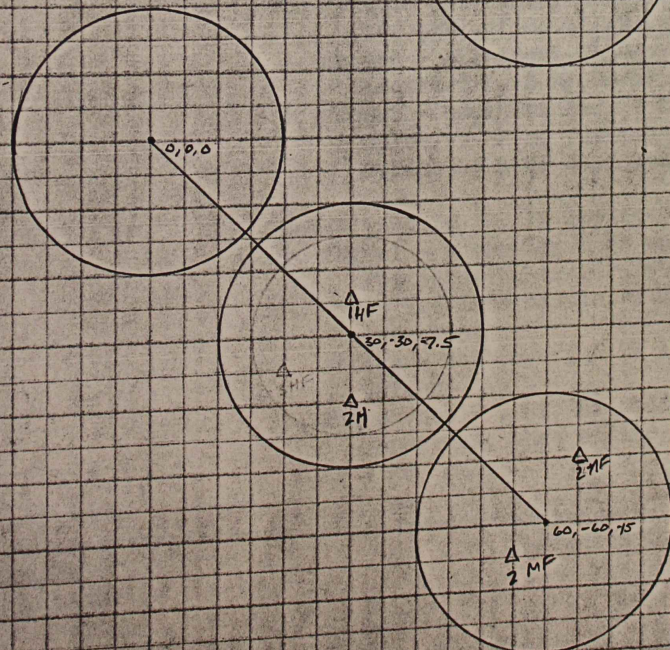
SERIES 02



MISSION 01  
THETA



MISSION 02  
PSI





- E      HF      Reassigned to HF
1. Defend - spacestation; 4 LF intercept enroute, then 4 HF attack station
  2. Patrol - special test mission in SMF; encounter 3 MF, 1 HF on route home
  3. Escort - corvette; wing of 7 MF are targetted
  4. Strike - station; 5 LF fly outer perimeter, then 3 HF defend in close
- F      LF/MF      Optional Reassignment to LF or MF
1. Patrol - ambush; lone LF near asteroid field breaks and runs, then 4 MF intercept
  2. Rendezvous - rescue damaged corvette; 3 LF intercept en route, 2 HF surround corvette
  3. Strike - fueltanker; 2 MF fly remote defense, 4 LF fly tight defense
  4. Defend - station; 3 MF intercept, 3 HF are attacking station
- G      LF/MF
1. Rendezvous - returning fighters; 4 MF are in hot pursuit, while a corvette is on intercept course
  2. Escort - corvette; destroyer is targetted, 3 LF intercept en route
  3. Defend - carrier; 4 HF hit carrier by surprise
  4. Rendezvous - transport; 3 MF intercept, 3 HF are control jump point
- H      SMF/HF      Optional Reassignment to SMF
1. Escort - transports to and from; 5 LF intercept, 4 MF guard jump point, 4 HF intercept on return
  2. Patrol - encounter 5 LF, which break and run for protection of nearby destroyer
  3. Strike - transport convoy; three transports, escorted by 5 MF, 3 HF, and 4 HF
  4. Escort - empty tanker; 2 LF intercept at jump point, 2 MF on return, carrier is under attack by 6 HF when you return
- I      HF      Reassigned to HF, if applicable
1. Patrol - encounter 4 HF waiting at jump point for incoming tanker, which appears a minute or two into battle; 3 HF then 4 MF intercept
  2. Strike - destroyer; 6 LF intercept, 3 HF defend
  3. Rendezvous - 2 HF; HF under attack by 3 HF at rendezvous, then strike cruiser defended by 4 MF



4. Patrol - while on patrol, dispatched to aid defense of destroyer, under attack by 5 HF
- J HF
- Reassigned to HF, if applicable
1. Patrol - encounter 3 HF, then cruiser escorted by three more HF
  2. Rendezvous - tankers; 6 enemy HF attack during arrival, 4 more rendezvous and pursue
  3. Strike - incoming transports at jump point; 3 MF guard jump point, but carrier appears instead of transport, launches 5 more MF
  4. Defend - corvette; 3 MF intercept, 5 HF are attacking
- K LF
- Reassigned to LF, if applicable, due to shortage of supplies
1. Defend - carrier; attacked by 6 HF by surprise
  2. Rendezvous - transport w/ fighter parts; 4 MF at rendezvous, 3 HF intercept on route home
  3. Patrol - encounter 3 MF, then dreadnought with 5 MF escort (PC should flee this encounter)
  4. Defend - carrier; dreadnought closes, with 4 MF escort, escort pulls off when ships draw close
- L SMF/HF
- Optional reassignment to SMF or HF
1. Patrol - intercept destroyer with 3 HF, then 3 transports with escort of 6 MF
  2. Strike - corvette with 2 HF, then carrier with 8 LF
  3. Defend - carrier; 6 MF make desperate surprise attack
  4. Strike - space station; 5 LF and corvette intercept, 5 HF defend station
- M SMF/HF
- Optional reassignment to SMF or HF
1. Rendezvous - incoming destroyer; 6 MF attack at jump point, then 4 HF
  2. Defend - station; 4 MF intercept, 6 HF attack station. 2 Imperial SMF/HF help defend when you arrive
  3. Strike - 3 incoming tankers; 6 LF intercept, 4 HF defend jump point, 4 more HF intercept
  4. Strike - carrier; destroyer and 3 HF intercept, 5 MF defend carrier
- N HF
- Reassigned to HF, if applicable
1. Defend - carrier; 8 LF attack to divert attention from attack on space station.
  2. Defend - After defending carrier, join battle

- in progress over station - 3 Imperial HF  
join defense
3. Rendezvous - incoming tankers; 8 LF attack at  
jump point, 4 HF attack near carrier
  4. Strike - carrier; cruiser and 3 MF intercept,  
5 HF defend

O MF

- Reassigned to MF
1. Strike - 4 incoming tankers; 4 LF intercept, 3  
HF defend jump point, 2 LF per surviving  
tanker rendezvous to escort tankers on  
return
  2. Defend - destroyer; 5 LF intercept en route, 6  
MF attack
  3. Rendezvous - 3 incoming transports;  
corvette and 3 HF intercept, 2 corvettes  
guard jump point, 5 HF intercept on return  
flight
  4. Defend - carrier; 3 corvettes assault carrier  
as it retreats from sector

P LF

- Reassigned to LF, if applicable
1. Rendezvous - incoming tankers; 4 HF intercept  
en route, 5 MF guard jump point, 3 HF  
intercept on return
  2. Strike - carrier; 4 LF intercept, 4 MF defend
  3. Defend - station; dreadnought attacks, with 5  
MF escort, escort peels off when DN draws  
close to station. Player will be ordered  
back to carrier, with 3 MF in pursuit
  4. Escort - carrier; waves of 4 HF, 6 MF and 5 HF  
attack as carrier retreats to jump point

\* "Defended" means that the ship is still functional at the end of the scenario - either reaching its destination or remaining alive after all enemies have been destroyed or routed.

#### SeriesFlags

The SeriesFlags is used to guide the player through the campaign. His performance over the course of a series will shape the development of the campaign, routing him to subsequent series appropriate to the current state of the war effort.

The SeriesFlags comprise 16 bit-flags, which begin the series as false (0). As each objective is accomplished, one or more bit-flags are set to true (1).

The number designation and value of each mission objective is set in the mission maker. The line on the mission maker should read something like:



## WINGLEADER

### POINT-COUNTING FOR MISSIONS AND SERIES

Prepared June 25, 1990

#### MissionScore

The variable "MissionScore" is used to keep track of the player's performance during a single mission. It referenced by both the medal-awarding system and by the conversation system. It is cleared after the entire mission is completed--including briefing, mission, debriefing, medals, office conferences, rec room, etc. It is probably best to hang onto the value for the MissionScore until the establishing shot for the next mission runs.

Point values for various events that can occur in a mission are:

<u>Event</u>	<u>Points</u>
Every point of damage penetrating an enemy's armor	1
Light fighter destroyed	3
Medium fighter destroyed	5
Heavy fighter destroyed	10
Tanker or transport destroyed	10
Tanker or transport defended*	25
Corvette or destroyer destroyed	25
Cruiser or carrier destroyed	50
Dreadnought or Spacestation destroyed	75
Capital ship defended*	25
Spacestation defended*	25
Enemy Ace killed	25
Every point of damage taken by PC	2
Every point of damage taken by wingman	1
Wingman is killed (Bronze mission)	-5
Wingman is killed (Silver mission)	5
Wingman is killed (Gold mission)	10

\* "Defended" means that the ship in question was still functional at the end of the scenario--either reaching its destination or remaining alive after all enemies have been destroyed or routed.

#### SeriesFlags

The SeriesFlags is used to guide the player through the campaign. His performance over the course of a series will shape the development of the campaign, routing him to subsequent series appropriate to the current state of the war effort.

The SeriesFlags comprise 16 bit-flags, which begin the series as False (0). As each objective is accomplished, one or more bit-flags are set to True (1).

The number-designation and value of each mission objective is set in the mission maker. The line on the mission maker should read something like:

Flag	<u>3</u>	Value	<u>2</u>
------	----------	-------	----------



Whenever the flag line for an objective is accessed, it will go to the first available flag of the sixteen for the series. Thus, in our example, the next time we define a flag, it will be flag number 5, since both 3 and 4 were used previously. Only available flags will appear in the field for flag number. To disable a flag, set it to -1, which means that the objective sets no flag when it is accomplished.

All of this can be handled with a relatively simple set of checks, which Jeff can at least design, even if someone else has to implement it.

plement it.



Wingleader Mission Navigation  
Prepared April 23, 1990  
Updated May 14, 1990  
by Jeff George

=====

### Heading, Direction and Speed

Headings are given as two numbers, separated by a "plus" or "minus" sign. The first number, ranging from 0 to 359, describes the heading in terms of degrees along the plane of the local solar system, with the sun at 0 degrees (due to the extreme distance to the sun, we can disregard the parallax problem and treat all headings of 0 as effectively parallel). The second number, ranging from 0 to 90, describes the heading as an angle to the plane of the solar system. The plus or minus indicates whether the angle is above or below that plane.

Thus, a heading of 180 +45 indicates a course directly away from the sun, heading up from the solar plane at 45 degrees.

When describing directions relative to their own starfighters, pilots generally fall back on the traditional terran method of using the hours of the clock and the designations high and low. Thus, one fighter pilot might warn another of an enemy that was closing from behind and below (relative to the heading of their own ships) by saying, "Three bogies, 6 o'clock low."

Speed is expressed in "Wingleader Units" per game turn, an as-yet-undefined rate. I have assumed a typical cruising speed of 300-400 for a fighter. But when enemies are closing, I have simply listed "Max" as their speed, indicating that they are approaching at the fastest rate their ships can maintain for an extended period.

### Markings on the Maps

On the mission maps I have drawn, the grid is marked at 5,000 "Wingleader Unit" intervals. Positions on the solar plane, relative to the home carrier ship are indicated by the position of the object or area on the grid; distance above or below the plane is indicated by the number to the upper right of the object, which is expressed in thousands of SUs.

The large circles around the various points indicate the area in which the various ship types should be loaded. I have made the areas considerably larger than the range at which the ships become visible, to allow some maneuvering room without the danger of the ships disappearing suddenly. The circles indicating debris fields should be full of debris throughout.

The various symbols on the maps are:

- A solid dot indicates a navigational objective. A subscript of "N" is used for simple navigation points, while a subscript of "J" indicates a probable jump point. Nav points are assigned numbers according to the order in which the pilot is to fly to them.
- An empty circle indicates a friendly ship, usually the fighters' mother ship. The mother ship is used as the 0 point for mission navigation.
- △ An empty triangle indicates a hostile ship or formation.
- ◇ An empty diamond indicates a field of debris; a subscript of "A" is

=====

Mission Navigation and Map Notes  
Page 1

WINGLEADER  
May 14, 1990



used for asteroids, while a "w" indicates ships' wreckage.

=====

WINGLEADER  
May 14, 1990

=====

Mission Navigation and Map Notes  
Page 2



```

/*
*****
*
*   Briefing for Series 1, Mission 1
*
*****

```

```

/*
*****
*
*   Commands used in this file:
*
*   SetShot           Picks current picture
*   SetSpeaker        Notes who is speaking; determines whether lips should
*                       move, and what color text should print as
*   Animate           Controls animation on screen
*   Text              Prints text at bottom of screen
*   Talk              Forces talking even if person in shot is not current
*                       current speaker, allows script writer to control
*                       timing of lip movement.
*   Expression        Controls facial animation
*   EndScene          Ends this scene, obviously
*
*****
*/

```

```

/* Definitions *****

```

# **\*\*SHOTS\*\***

```

BRIEFING_ROOM      long shot of briefing room, looking at podium & screen
                    over heads of pilots in seats

PODIUM              medium shot of commander at podium; use first frame(s) of
                    the shot that pans from him to the vidscreen
                    (talking animation for this picture would be nice)

COMMANDER           squadron commander (defines shot and speaker; do we need
                    different names for each context?)

SPIRIT              female oriental pilot (same question as for COMMANDER)

```

# **\*\*ANIMATION\*\***

```

SETTLE_DOWN        BRIEFING_ROOM; commander raises hands to gesture for silence

PAN_TO_SCREEN      PODIUM; camera pans left to vidscreen

DISMISSED          BRIEFING_ROOM; 300 interrupt delay, then pilots stand

```

**\*\*NOTE:** We may decide to have Glen do some quick talking frames for the podium shot, so we can use that art more effectively as a still as well as the start of the vidscreen pan\*\*



\_SCAN

```
(  
  START  
  RIGHT60  
  STRAIGHT45  
  DOWN15  
  DOWN45  
  LEFT30  
  CENTER60  
  CENTER15  
  REPEAT  
);
```

STRAIGHT20	BLINK10
LEFT30	BLINK10
BLINK10	
LEFT30	BLINK10
STRAIGHT30	BLINK10
BLINK10	
RIGHT15	BLINK10

DEMURE

```
(  
  STRAIGHT90  
  STRAIGHT60  
  DOWN15  
  DOWN30  
  START  
  STRAIGHT90  
  REPEAT  
);
```

BLINK10	
BLINK10	
SMIRK	BLINK300
BLINK15	
BLINK10	

EYES\_CENTER\_LEFT

```
(  
  STRAIGHT60  
  STRAIGHT15  
  START  
  LEFT75  
  LEFT90  
  LEFT80  
  REPEAT  
);
```

BLINK10		
LEFT 60	BLINK10	
BLINK10		
BLINK10		
BLINK10		

EYES\_DELAY\_LEFT\_CENTER

```
(  
  LEFT65  
  LEFT85  
  LEFT65  
  LEFT20  
  STRAIGHT30  
  START  
  STRAIGHT60  
  STRAIGHT75  
  STRAIGHT65  
  REPEAT  
);
```

BLINK10	
BLINK10	
BLINK10	
BLINK10	
BLINK10	
BLINK10	
BLINK10	
BLINK10	

EYES\_CENTER\_RIGHT

```
(  
  STRAIGHT60  
  STRAIGHT15  
  START  
  RIGHT75  
  RIGHT90  
  RIGHT80  
  REPEAT  
);
```

BLINK10		
RIGHT45	BLINK10	
BLINK10		
BLINK10		
BLINK10		

\*\*\*\*\*  
\*/



```

BriefingA1 ()
{
    SetShot
    SetSpeaker      (BRIEFING_ROOM);
    Animate          (COMMANDER);
    Text            (SETTLE_DOWN);
    (
        "Settle down, people. We've got work to do."
    );

    SetShot
    Text            (PODIUM);
    (
        "As you know, the Tiger's Claw dropped from jumpspace
        into the Endo system seven hours ago, at 08:00."
    );

    Text
    (
        "Blue Devil squadron took the first patrol shift. You
        Killer Bees start your shift in an hour, at 16:00."
    );

    SetShot
    Expression      (COMMANDER);
    Text            (SLOW_SCAN);
    (
        "Now, since some of you are new here on the Tiger's
        Claw, you'll be flying with experienced pilots
        for your first missions."
    );

    Expression      (SLOW_SCAN);
    Text            (
        "I want the rookies to fly as wingleaders.
        You vets keep an eye on the kids--keep 'em outa trouble."
    );

    Expression      (SLOW_SCAN);
    Text            (
        "Here are the assignments."
    );

    Expression
    Text            (STRAIGHT);
    (
        "$PC, you're leading Alpha wing."
    );

    SetShot
    Expression      (SPIRIT);
    Text            (DEMURE);
    (
        "Spirit will fly on your wing. She's quiet, $PC, but
        she knows the ropes out there."
    );

    SetShot
    Text            (COMMANDER);
    (
        "You're the wingleader, but if Spirit says something,
        you be sure and listen. Got it?"
    );

    SetSpeaker
    Text            (NARRATOR);
    (
        "You nod."
    );

```



```

);
Speaker
Text (COMMANDER);
("Good.");
);
SetShot (PODIUM);
Animate (PAN_TO_SCREEN);
Text ("Here's your patrol plan, then.");
Text (
  "You'll be checking three possible jump points, at about
  20,000 klicks out."
);
Text (
  "There are asteroids near nav points 2 and 3, so stay
  on course."
);
SetShot
Text (
  "Any questions?"
);
Expression (EYES_CENTER_LEFT);
Text ("Spirit?");
);
SetShot (SPIRIT);
SetSpeaker (SPIRIT);
Text (
  "Yes, commander. What are we to do if we encounter the enemy?"
);
SetShot (COMMANDER);
SetSpeaker (COMMANDER);
Expression (EYES_DELAY_LEFT_CENTER);
Text (
  "Engage, if the odds look good. Let $PC make the call."
);
Expression (EYES_CENTER_RIGHT);
Text (
  "Next is Beta wing. Angel, you'll fly lead, with Paladin
  on your wing . . ."
);
SetShot (PODIUM);
SetSpeaker (NARRATOR);
Talk ();
Text (
  "Anticipating your first real mission, your thoughts wander
  as the commander makes the rest of the assignments."
);
Talk ();
Text (
  "You've done well in training simulations, but do you
  have what it takes to make it against real opponents?"
);

```



```

    ();
    (
    "Well, you'll find out soon enough. Your attention returns to
    the commander just as he finishes making assignments."
    );

    (COMMANDER);
    (COMMANDER);
    (
    ". . . and back to the Tiger's Claw."
    );

    Text
    (
    "Now everyone remember . . . this is no trainsim. If you
    encounter the enemy, he'll be out to kill you."
    );

    Text
    (
    "Let's be sure we do it to them before they do it to us."
    );

    SetShot    (BRIEFING_ROOM);
    Animate    (DISMISSED);
    Text
    (
    "Squadron dismissed."
    );

    EndScene  ();

```

```

}

```



**SQUADRON Ships' Intelligence, Take 2**  
Prepared 4-26-90  
by Jeff George

=====

General

Ships in SQUADRON are driven by a multi-level intelligence system that makes decisions on all levels from grand strategic to minute tactical. The levels at which decisions are made, from highest to lowest, are:

- Mission Objective
- Current Objective
- Side Strategy
- Ship Tactics
- Ship Maneuvers

Mission Objective

The highest level of intelligence is the mission objective; this is consists of the goal or goals of the current mission. No real decisions are made at this level--the mission objective is essentially a best-possible plan for the squadron in question.

The mission objective includes all steps in the mission, in the order in which they are to be performed. For example, a patrol mission's objective would be to fly to all navigation points specified in the mission briefing, and return to the carrier to report. A strike mission against an enemy tanker would be to rendezvous with the tanker, destroy it, and return to the carrier.

Current Objective

The current objective is the one goal which the squadron is currently attempting to achieve before moving on to another goal. If no enemies have been sighted, the current objective will almost invariably be the next goal of the mission--flying to the next nav point, or locate the enemy squadron, for example. The current objective will be checked whenever a significant event occurs. Such events include:

- Accomplishment of a mission goal
- Contact with enemy spacecraft
- Loss of contact with enemy spacecraft
- Loss of an allied spaceship
- Failure to accomplish a mission goal

Various factors will be weighed in making the selection of a new current objective. These include:

- Have enemy vessels been encountered?
  - How many, and what kind?
  - Can the enemy squadron be evaded?
  - What is their current heading and velocity?
  - Are they closing, fleeing, or maintaining course?
  - Are any enemy aces included in the squadron?
- What kind of shape are the allied ships in? Undamaged? lightly damaged? heavily damaged?



Has the allied squadron suffered casualties?  
Is the squadron leader still active?  
Is it more important to engage the enemy, or press ahead with the mission objectives?

Based on the answers to these questions, the current objective will be selected for the squadron. Possible objectives include:

Retreat to mother ship  
Proceed to next mission objective  
Evade enemy  
Engage enemy

#### Squadron Strategy

Once the current objective has been selected, the squadron must determine its strategy for accomplishing that objective. Squadron strategy will be checked before and engagement, and periodically throughout that engagement. Events which trigger a strategy check would include the destruction of an enemy vessel and the destruction of an allied vessel.

The questions asked, and the strategies chosen, will obviously vary according to the mission objectives and especially the current objective. But strategies for most objectives, such as Retreat and Proceed will be relatively simple; more complex strategies will be required for Evade and Engage objectives.

For Engage, the squadron will need to consider:

Are the enemies within weapon range?  
Is the allied squadron in close formation, or spread out?  
Are the enemies in close formation or spread out?  
Are there more enemies than allies, or less?  
Are any of the enemies higher priority targets than the rest?  
Are the enemy vessels faster or more maneuverable than the allies?  
Are they more heavily armed or armored?  
Are the enemies closing, fleeing, or ignoring the allies?

Possible strategies for Engage are:

Divide and engage enemy one on one.  
Spread out to surround enemy.  
In formation, close rapidly with enemy for frontal assault.  
Concentrate all attention on one enemy (either a high priority target or the lead ship).  
Stick close to allied ship to defend it (when escorting).  
Protect jump point for incoming ally.

For an objective of Evade, the squadron will need to consider:

Are the enemies within weapon range?  
Is the allied squadron in close formation, or spread out?  
Are the enemies in close formation or spread out?  
Are there more enemies than allies, or less?  
Are the enemy ships faster or slower than the allied ships?



Are the enemies closing for an attack?  
How many allied ships must survive the encounter to accomplish the mission objective (would a sacrifice be useful)?  
Is the mission objective to protect certain allied ships, such as tankers or capital ships?

Possible strategies for Evade include:  
Scatter to divide the enemy, to regroup at next mission objective.  
Hold tight formation and head directly away from enemy squadron until they break pursuit.  
Rush the enemy squadron, weapons blasting, to blow through the enemy and continue on before they can react.  
Leave some of allied squadron to engage enemy, while one or more ships continue to next mission objective.

#### Target Assignment

At the target assignment level, individual vessels are assigned to attack various opponents. Each ship checks target assignment individually whenever it finds itself without an assigned target, or when certain other key factors occur, such as a direct attack by a third vessel, or a change in Squadron Strategy.

Note: I have broken Target Assignment off into its own decision level, between Squadron Strategy and Ship Tactics, because it did not seem to fit in neatly with either one--it would have to be checked more often than Squadron Strategy, and less often than Tactics, and really makes decisions at a level between the two.

Factors to consider when choosing a Target are:  
What is the current Squadron Strategy?  
Are there more enemy ships in the engagement, or allies?  
Are any of the enemies damaged significantly or otherwise vulnerable?  
Are any allies damaged and in need of protection?  
Are any enemies higher priority targets, such as tankers or capital ships?  
Have I been fired upon or hit by an enemy vessel, especially one other than my current target?  
Which enemies are nearest to me?  
Are any nearby enemies currently devoting their attention to my allies, and ignoring me?  
Are any enemy vessels currently not targetted by allied vessels?

Conclusions at this decision level will be limited to target selection--the assignment of a single enemy ship to the decision-maker as his official target.

#### Ship Tactics

Once a ship has been assigned a target, it will need to decide how best to attack that target. For example, is a head-on rush in order, or would a tail-on approach be more appropriate. Both attacking and evasive



tactics will be available, depending upon the situation.

Tactics will need to be checked very often--perhaps even once every second, certainly once every few seconds.

Factors to consider when choosing tactics are:

How much firepower does the enemy have, and in what directions can he fire?

How much firepower do I have, and in what directions can I shoot?

Is the enemy's ship faster and/or more maneuverable?

How far away is the enemy?

What are our relative positions, headings, and velocities?

Is he on my tail? Am I on his?

Can he fire at me right now?

Can I fire at him?

Has he hit me? Have I hit him?

Is either his ship or mine seriously damaged?

Is he (or am I) an ace with a reputation?

Do I know anything about his preferred tactics? If so, what?

Does his ship have any known vulnerable points (weak shielding or armor on one side, for example).

Is he currently targetting me, or another of my allies?

Is the destruction of this ship a mission objective, or simply a side objective?

If I survive the battle, can I get home? Or is my fuel too low or my ship too shot up, making a suicide attack worthwhile?

Tactics which may be selected include:

Direct frontal attack

Intercept and attack (my nose to his side, top, or underside)

Get on his tail

Shake him off my tail

Avoid collision

Lead back to thick of battle

Lead away from thick of battle

Full-throttle escape (run directly away)

Maintain distance for missile attacks

Evade his fire

Collision course

Head-on game of chicken

[No doubt more and better tactics can be thought up by people with a better understanding of fighter tactics than myself; neither this list, nor any in these notes, is intended as comprehensive or final.]

### Ship Maneuvers

Once the ship's tactic has been chosen, it must choose a maneuver, or series of maneuvers, to execute that tactic. Each tactic will essentially have its own miniature flow-chart or routine by which maneuvers are selected, based on the precise relative positions of the ships.

Factors to consider in selecting maneuvers are:



What tactics am I currently executing?  
What are the relative positions, headings, and velocities of my ship  
and that of my enemy?  
What are my personal preferences in maneuvers?

Ship maneuvers that may be selected include everything from simple  
course corrections to complicated flight stunts. I have listed only the  
special ones which occurred to me; the simple ones (steer right, steer left,  
etc.) seem fairly self-evident.

Immelmann reverse

"Space Brake" (to slip behind tailing opponent)

"Sit and Spin" (reverse ship without altering vector, to fire at  
tailing ship)

Barrel Roll

Afterburn

Hard turn (up, down, right or left)

### The Human Element

I would recommend implementing the "human element"--the  
personalities of the wingmen and opposing pilots and commanders--as the  
values against which the various data listed above are checked. For  
example, when the question, "Are we badly outnumbered?" is asked, the  
computer has a way to quantify the data as an integer variable, and this is  
compared to the "outnumbered byte" in the commander's personality array.  
If the value describing the current situation exceeds the commander's  
value, he feels his side is outnumbered, and plans accordingly. To add a bit  
of randomness to the equation, a die may be rolled and added or subtracted  
from one or the other of the values being compared.

Of course, an additional "personalization factor" can be made  
available at the maneuver level, by making the trickier maneuvers available  
only to some pilots, and different maneuvers available to different pilots.  
Of course, when checking for maneuver, we'll need to check to be sure a  
given maneuver is available to a pilot before assigning it to him to  
execute.



**WING COMMANDER**  
**DAILY TASK SCHEDULE**  
7/27/90

Chris Roberts

Finish implementing last tunes from the Fat Man.

Ken Demarest

Finish debugging auto-pilot.

Paul Isaac

Continue designing data structure (and generating data) for maneuver selection. (THIS TASK MUST BE COMPLETED BY 7/28/90.)

X Herman Miller

Continue working on EGA/Tandy graphics. (THIS TASK MUST BE COMPLETED BY 7/31/90.)

- ① File conversion program modification
- ② Try w/ game
- ③ Debug

X Steve Muchow

Finish debugging input text for train-sim high scores, call signs, etc.

★ Jeff George

~~All mission data should be input. Begin working on briefings and all other text for all missions. (THIS TASK MUST BE COMPLETED BY 8/7/90.)~~

Denis Loubet

All ship profile art should be complete. Generate main game option screen.

★ 1 series/day.



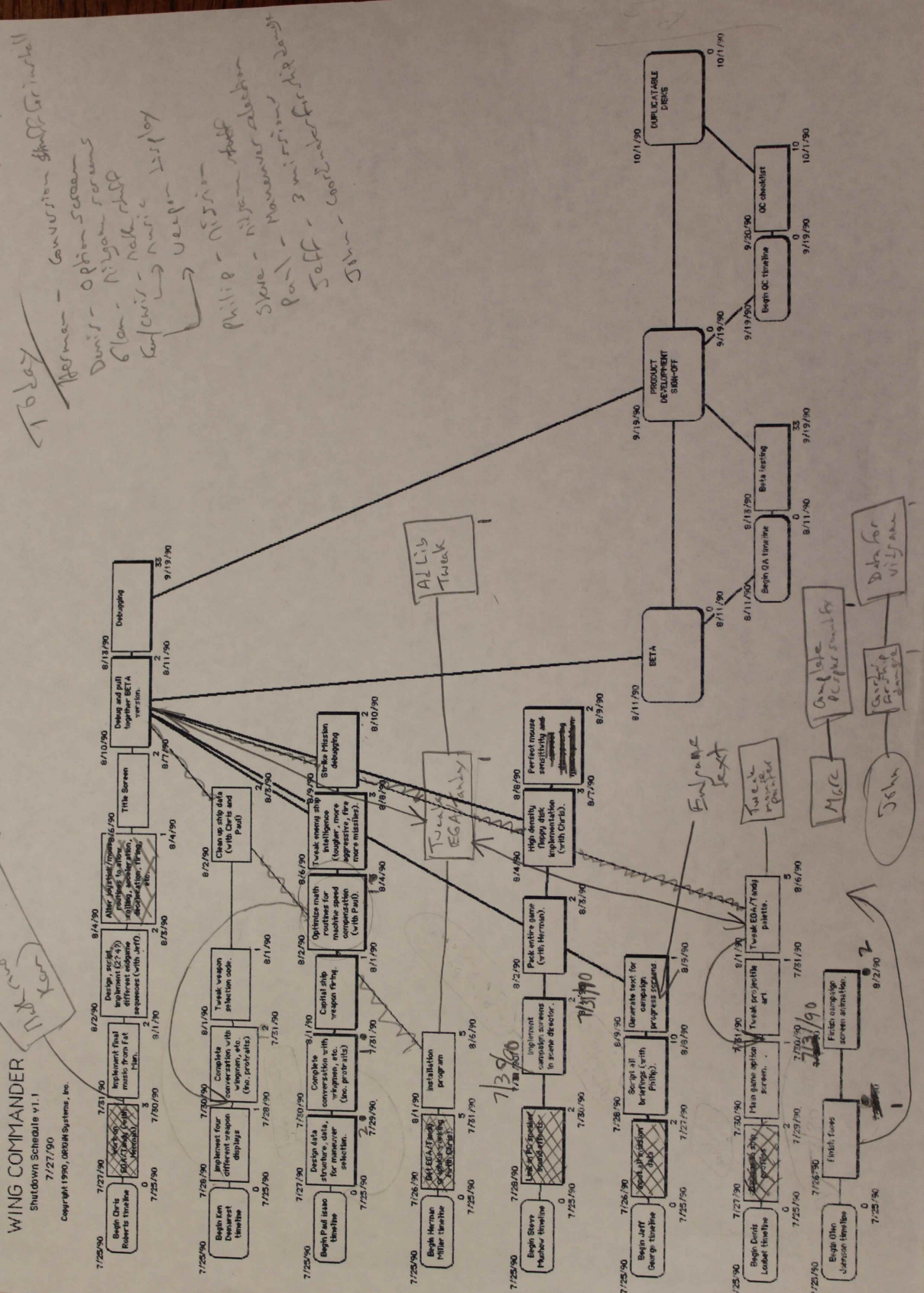
WING COMMANDER

WING COMMANDER

Shutdown Schedule v1.1

7127100

06/17/11



Today

- Herman - Conversion effort for install
- Doris - Option screen
- Glen - Nitrogen screens
- Kentwin - North cliff
- ↳ mine
- ↳ Uepon Listop
- ↳ Vision
- Philip - Nitrogen stuff
- Stere - Nitrogen detection
- Paul - Movement detector
- Jeff - 3 vision
- Tim - Coordinator for the day

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
            ↳ Nike  
            ↳ Veepor Listop  
            ↳ Vision  
Philip - Nitrogen stock  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Veepor Listop  
                ↳      ↓  
Philip - Nitrogen stuff  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Veepor Listop  
                ↳      ↓  
Philip - Nitrogen stuff  
Steve - Nitrogen election  
Paul - Movement for 20 days  
Jeff - 3 minutes  
Jim - Coordinator for 20 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Veepor Listop  
                ↳      ↓  
Philip - Nitrogen stuff  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Veepor Listop  
                ↳ Vision  
Philip - Nitrogen stock  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Veepor Listop  
                ↳ Vision  
Philip - Nitrogen stock  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Veepor Listop  
                ↳ Vision  
Philip - Nitrogen stock  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
                ↳ Nike  
                ↳ Vespene Listop  
                ↳ Upsilon  
Philip - Nitrogen stuff  
Steve - Nitrogen election  
Paul - Movement for 2nd day  
Jeff - 3 minutes  
Jim - Coordination for 2nd day

Today

Herman - Conversion effort for install  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - North cliff  
            ↳ Nitric  
            ↳ Ureapen Listop  
            ↳ Nitrogen stuff  
Philip - Nitrogen selection  
Steve - Movement  
Paul - 3 minutes  
Jeff - Coordinator for the day  
Jim -

Today

Herman - Conversion effort for intel  
Doris - Option screen  
Glen - Nitrogen screens  
Kempster - Northrup  
            ↳ Nike  
            ↳ Veepor Listop  
            ↳ Vision  
Philip - Nitrogen stock  
Steve - Nitrogen election  
Paul - Movement for 2 days  
Jeff - 3 minutes  
Jim - Coordinator for 2 days

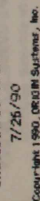


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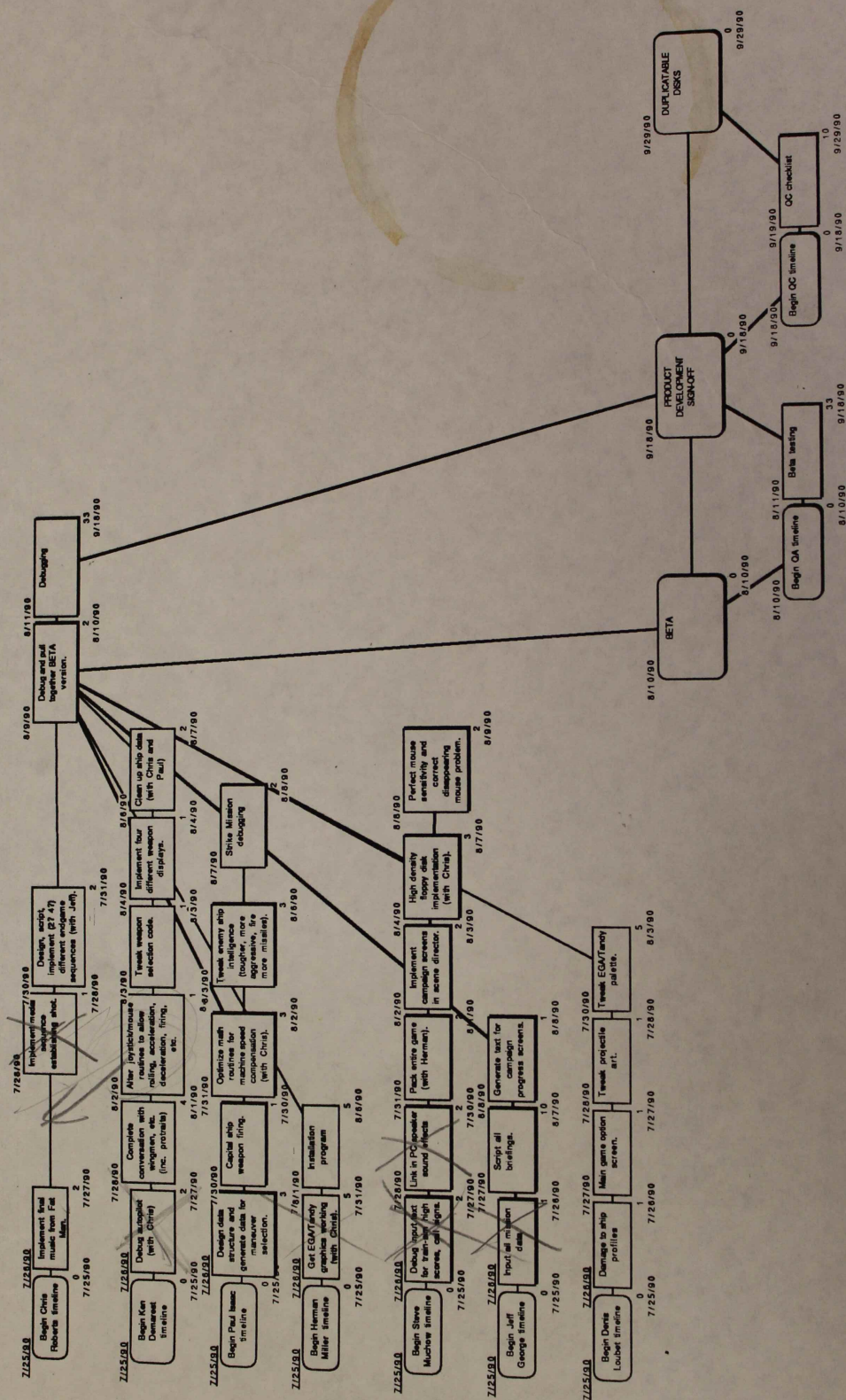


7/26/90





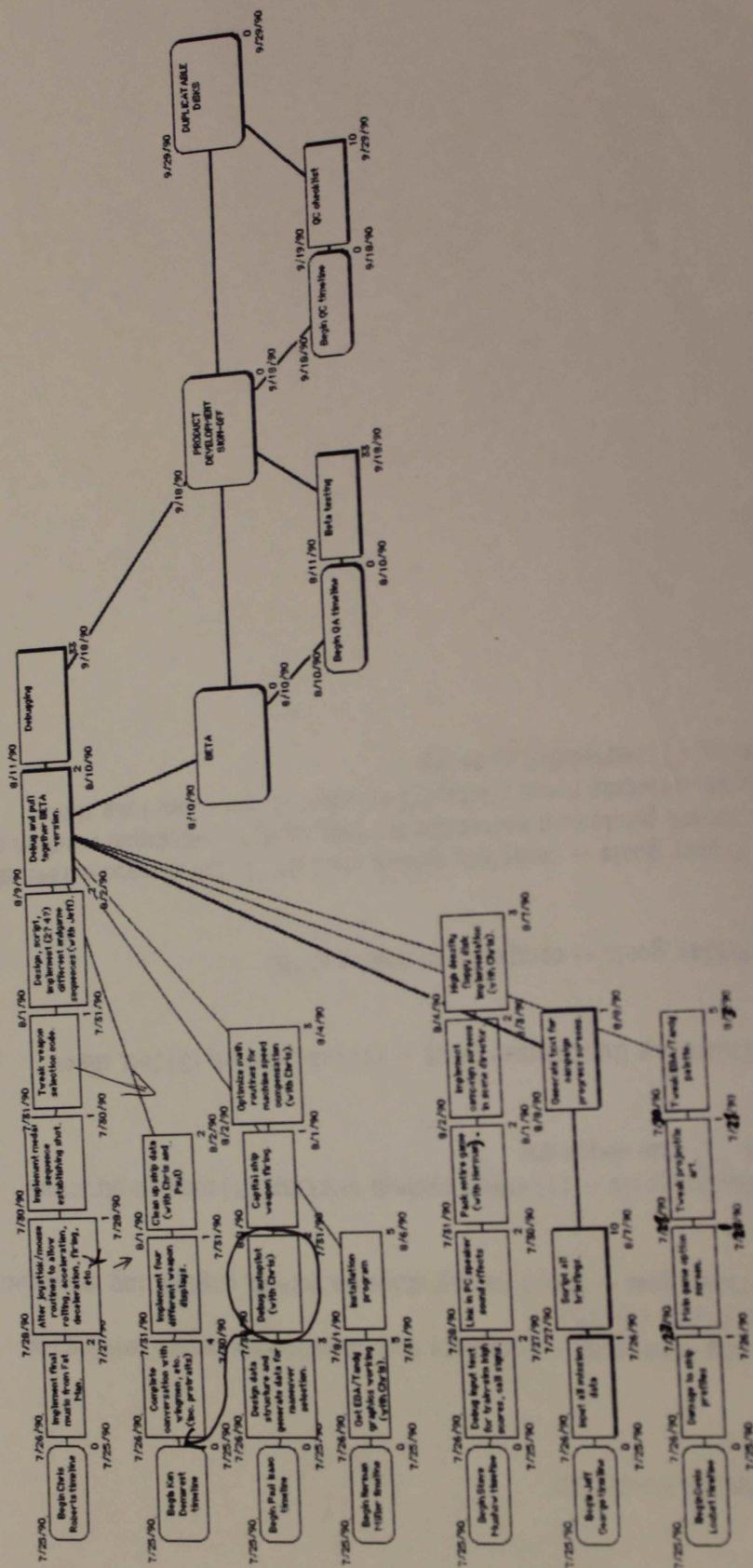
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## Shutdown Schedule v1.0

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WINGLEADER To-Do List  
5/7/90

Paul

Long-term goal -- Complete ship intelligence before leaving for vacation (5/18 - 5/28)

Friday goal -- three enemy ships on screen, dogfighting intelligently

Steve

Friday goals -- (1) event system working; (2) mission structure defined; (3) title sequence

Jeff G.

Thursday (lunchtime) goals -- (1) sell booklet; (2) fact sheet

Denis

Friday goals -- complete all screen shots

Glen

Friday goals -- complete screen shot art (1) Kilrathi vid-screen shot; (2) Rec Room pilots and bartender for long shot; (3) wingman reaction shot; (4) finalize briefing room pilots; (5) arsenio; (6) rec room long shot animation; (7) bartender close-up



WINGLEADER Friday Goal List  
5/14/90

Paul

Enemy and wingman ship intelligence 90-95% complete before leaving for vacation (5/18 - 5/28)

Steve

Briefing room done (including animation and mission selection). Begin interfacing with Paul's code. Mission driver running. Debriefing functional based on mission outcome.

Jeff G.

Two missions scripted out, including briefing, in-flight conversations, debriefing. Flesh out other missions if time permits.

Denis

Tuesday -- Asteroids finished.

Friday -- Polish explosions and debris. Create hyperspace jump flash, engine exhaust. Screen shots finished.

Glen

Wingmen and Kilrathi ace vid screen animation (including talking and death scenes). Mechanic assessing damage. Miscellaneous animation in rec room (e.g., smoke curling from ashtray). Assist on screen shots if time permits.

Marc

Get up to speed on Roland sound effects editor. Create Laser, explosion, sonic boom, background engine noise, debris hitting ship, afterburner roar, taking damage, hitting enemy, and jump flash sounds.

Chris

Complete title page, incorporate sound effects/music, asteroids, explosions, and debris.



WINGLEADER Friday Goal List  
6/11/90

Herman

Began converting Turbo C AdLib driver to assembly.

1. Finish AdLib and Roland drivers
2. Get music working with expanded memory

Marc

Finished approx. half of AdLib sound effects

1. Finish AdLib sound effects
2. Create final Roland sound effects (for funeral, etc.)

John

No progress

1. Finish ship targeting display
2. Position exhaust flames
3. Create illos for PC ship weapon display

Jeff G.

Entered two missions in Mission Maker. Began writing AI notes

1. Wrap up notes from AI meeting
2. Create second series missions
3. Finalize briefing/debriefing structure with Steve & Chris
4. Script briefings/debriefings for first series of missions
5. Discuss text for rec room & cmdr's room visit with Steve
6. Create list of medals

Steve M.

Game running again (inc. rec room). Debugged packet system

1. Fix rec room memory allocation problem
2. Break off briefing/debriefing text as files
3. Incorporate EGA TMDraw
4. Write compiler for briefing/debriefing
5. Translate files over to packet system



Glen

Worked on wingmen talking. Began medal ceremony

1. Wrap up medal sequence
2. Finish wingmen
3. Clean up commander's face in briefing room medium shot
4. Finish commander in vacc suit for funeral scene
5. Help Denis, as necessary

Paul

Installed new Turbo C++. Did some work on combat intelligence

1. Implement ship intelligence based on Jeff's notes

Denis

Did funeral scene. Created scrolling girder. Began commander's face in helmet.

1. Commander vacc suit
2. Barracks
3. Ejection art for Hornet
4. Side view: Raptor, Scimitar, Rapier inc. damage, kill markings
5. Clean up rec room

Chris

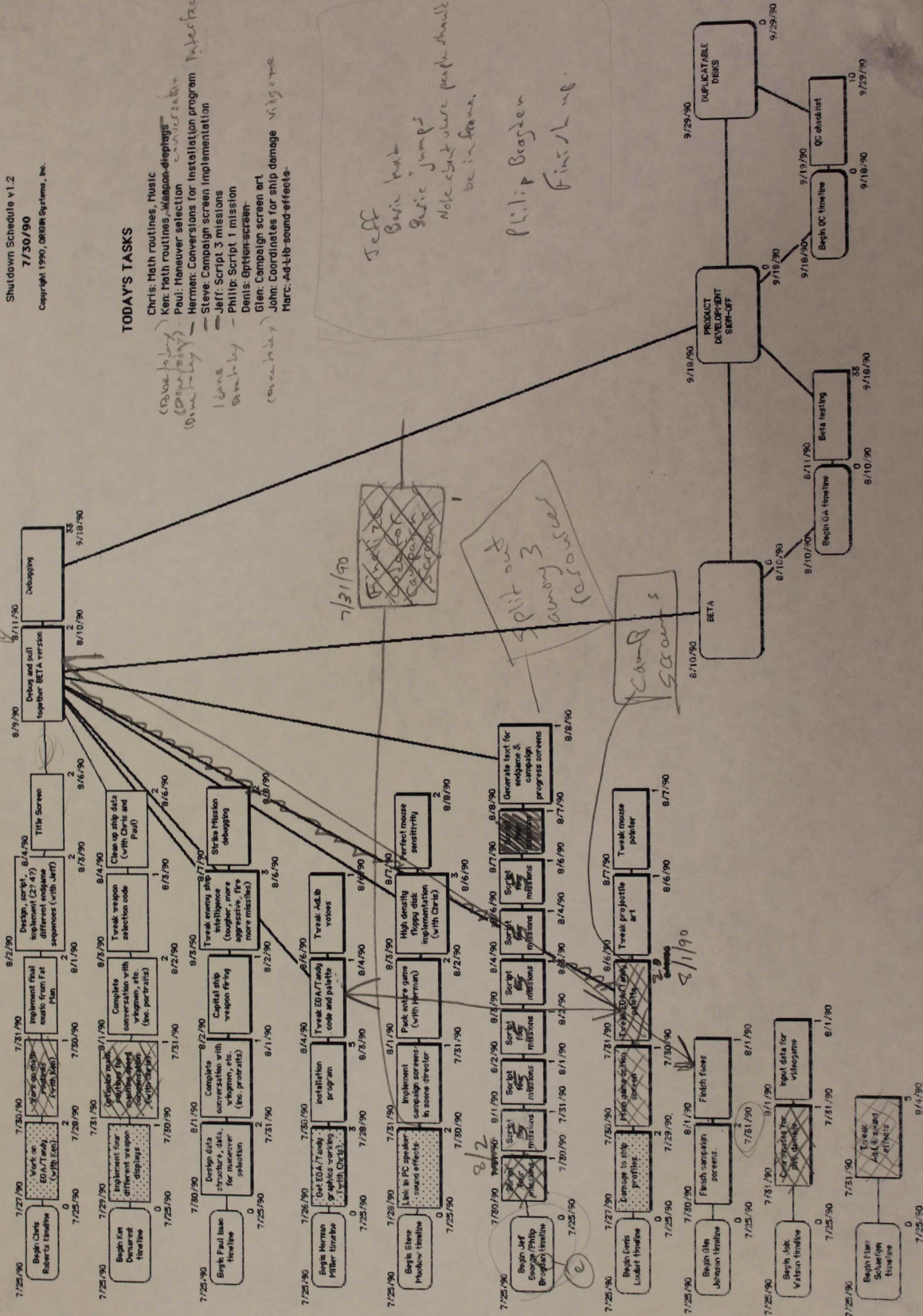
1. Autopilot
2. In-cockpit computer systems (nav.map, etc.)
3. Asteroids
4. Funeral scene



## TODAY'S TASKS

Chris: Math routines, Music  
Ken: Math routines, ~~Wagon displays~~  
Paul: Maneuver selection  
Hermen: Conversions for installation program  
Steve: Campaign screen implementation  
Jeff: Script 3 missions  
Phillip: Script 1 mission  
Dennis: Options screen  
Glen: Campaign screen art  
John: Coordinates for ship damage  
Marc: A4-Hub sound effects

Jeff  
Boris Yeltsin  
Boris Yeltsin  
Note about where people should  
be in frame.





ntj 8/16

## WING COMMANDER

Ship 9/26

### PRINTED MATERIAL DESCRIPTIONS & TASKS

Warren Spector  
7/11/90

#### BOX BACK

Star field and planet background -- star field drops out where text goes. Lots of screen shots in film strip format, like flyer.

~~Screen shots to Graphics: 7/3  
Screen shots back from photographer 7/9  
Copy to Graphics: 7/11  
Box back to separators: 7/18  
QA/QC/Everyone else final sign-off:  
Box to Printer: 7/25~~

At printer

#### DOCUMENTATION

48-pages, 4-color cover, 2-color interior. Big type, airy pages. Approximately 10,000 words. Formatted to look like an armed forces magazine like Stars & Stripes or TAC Attack. Several articles with different bylines, tones, etc. Maybe even different layout style for each article. Probably multi-column. Filler material provides background on the campaign ("One Year Ago Today in the Kilrathi War," "Safety Tips," etc.). Throw in a one-page comic strip, articles about wingmen ("Strike Team of the Month"), articles about the carrier, Tiger Claw ("Pride of the Fleet").

Text to Editor: 8/1 (8/8) 9/14  
Cover screen shot (and all 4-color work) to Graphics: 8/1  
4-color work to separators: 8/9  
QA text sign-off/Edited text to Graphics: 8/15  
Interior art to Graphics: 8/24... 27  
4-color work to Printer: 8/16  
QA/QC/Everyone else final sign-off: 8/20  
To Printer: ~~8/23 (8/30)~~ 9/4



## **BLUEPRINTS** ON DISK SUPPORT MATERIAL

Four 11 x 17 one-color posters (folded so the blue side faces out). One blueprint for each ship type you fly. Multiple views. Cutaways of internal systems. Ship specs and capabilities.

Text to Editor:

Art to Editor: 8/27

Art and edited text to Graphics: ~~8/27~~ 8/27

QA/QC/Everyone else final sign-off:

To Printer:

## **REF CARD**

Six panel, one-color. Loading instructions, how to get started, bare bones of gameplay, etc.

Text to Editor: 8/~~27~~ 8/20

QA text sign-off/Edited text to Graphics: 8/27

QA/QC/Everyone else final sign-off: 9/5

To Printer: 9/7

## **SKU LABEL**

The usual.

Text to Graphics: 8/27

QA/QC/Everyone else final sign-off: 9/5

To Printer: 9/7

## **DISK LABELS**

The usual, with a neat piece of art for each one.

Text to Graphics: 9/4

QA/QC/Everyone else final sign-off: 9/6

To Printer: 9/7



## SECRET MISSION DISK SUPPORT MATERIAL

Disk label(s)?

Instructions? *How to incorporate into game*

Tent card/mailer/box/??? *"Requires UC game. Not stand-alone"*

### MISCELLANEOUS

*No screen shots - B&W, bold bullet points*

*X new ships  
X new missions  
etc.*

Promotional flyers?

Special offer coupons (e.g., Omni magazine subscription)?

Warranty card?

???



## WING COMMANDER

---

Prepared 9/22/90  
Ken Demarest III

Documentation to duplicate the Wing Commander working environment, including all code and data necessary to create new duplicatable disks.

Wing Commander was compiled using Turbo C v2.0 and Turbo Assembler 2.0. All art for Wing Commander was created using Deluxe Paint II and Deluxe Paint Animator. In order to re-create the working environment, you MUST have both TC and TASM. All batch files assume that they are in C:\TC and C:\TASM respectively. Be sure that you also have TLINK.EXE present somewhere on the path. The source files were edited with BRIEF v2.1, but you can use almost any ASCII text editor. It is also a very good idea to include Turbo Debugger in C:\TD. You only need to install Dpaint if you wish to alter the native art files.

You will also need FastBack v2.10 to restore the files to your hard drive(s). I strongly suggest you use drives and subdirectories with the exact same names used during development.

I've used many different utilities during the creation of Wing Commander, and some of these are described at the end of this document.

There is a description of each of the groups of backup disks and what they contain. Also described are methods for re-creating the object files, executables, and the myriad data conversions performed on the art files.

## LIBRARY DISKS - require 4 meg

---

Restore these to C: with FastBack v2.10.

The library file OSILIB.LIB contains the compiled files for our main library functions. You will also find the source code for the various graphics drivers here. They are named appropriately, GA, EGA, VGA, and TGA (for the Tandy Graphics Adapter). The drivers which are created from these directories are named M.DRV and SUPERTM.DRV.

In order to make the libraries, and copy them automatically to C:\TC\LIBS and C:\TC\INCLUDE, use the batch file ????.BAT.

Contact Steve Mucho with problems concerning the libraries in general. Chris Roberts is responsible for the SUPERTM functions (including scaling and rotating objects), and John Miles is responsible for the standard TM-Draw functions.

In addition to the graphic and general-purpose libraries, the music driver source code for Adlib and Roland is here. Contact Herman Miller for information about the music drivers.

## WING COMMANDER MAIN DISKS - require 32 meg

---



## WING COMMANDER

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### WING COMMANDER MAIN DISKS - require 32 meg

---



... to D: with FastBack V2.10.  
note at the end of this section about people to contact  
various sections of the program.

#### D:\USR\SQUADRON

All of the source for Wing Commander is here, in both C files and ASM files. In order to re-make all of the OBJs and the main EXE (called SQUADRON.EXE), use the batch file M.BAT. This calls Borland's MAKE utility (hopefully present on your path in the C:\TC\BIN directory and renamed from MAKE.EXE to M.EXE), which uses the files MAKEFILE and LINK.LST.

Also in this directory are two important files, HI54.C and DISKS3.BAT, used for making the INSTALL.DAT file and for creating new masters on HD5.25" diskettes.

#### D:\USR\SQUADRON\INCLUDE

All of the .H files live here.

#### D:\USR\SQUADRON\GAMEDAT

This directory contains all of the data used while playing the game, including the drivers created by C:\LIBS (\*.DRV). All of these files may be created by compiling and/or running other files on this or other Wing Commander disks.

#### D:\USR\SQUADRON\UTIL

This directory contains a wide variety of testing and utility programs. For example, the WINGCOMM.C program is used to create the COMMUNIC.DAT file, which contains all of the in-cockpit communications the player receives. Another example is TRIGS.C, which is the C testing interface for the Binary-tree searching algorithm in TRIGS.ASM. (use TC to edit and compile these files. Contact Ken Demarest about them)

Contact Chris Roberts about the functions of other utilities in this directory.

#### D:\USR\SQUADRON\MUSIC

This directory contains all of the short musical pieces used in Wing Commander. Chris Roberts can describe them and how they are integrated into the main program.

#### D:\USR\SQUADRON\ART

The native Dpaint files for every piece of art may be found in this directory and its subdirectories, along with the templates for the art. Templates tell the utility program TM\_DRAW.EXE what area(s) of the picture(s) to extract and convert to TM-DRAW format. Typically, a large group of files will be converted, sometimes with more than one template for the same piece of art. To facilitate this, response files (\*.RSP) are used which list parameters for TM\_DRAW.EXE. See the \USR\SQUADRON\DAT directory for more information. You can use Dpaint II or Dpaint Animator to edit these art files.

#### D:\USR\SQUADRON\DAT

This directory contains all of the briefing data (in the form



This directory contains all of the briefing data (in the form of files), as well as lots of converted art files. Naturally, you edit the briefings and compile them with TC2.0. They are stored as macros and text defines. To re-assemble the briefings use BREF.BAT followed by BRIEFTXT.BAT.

The file M.BAT is used to convert just about all of the art data to TM-DRAW readable files, and stores it all in appropriate places. See PM.BAT below...

The mission data editor, called MISMAKE.EXE, allows you to change the mission data. You compile the mission data and the art files with the batch file PM.BAT. (Which stands for Packet Make).

#### CONTACT

You can discuss almost any area of the program with Chris Roberts. Specific areas of responsibility for each programmer are listed below. If you can't find what you're looking for here, chances are Chris was responsible for it.

STEVE MUCHO - library routines, including the keyboard, joystick and mouse handlers. Also the packet system, floppy disk swapping, (especially intovl.c), file allocation among floppy disks, parts of the arcade and barracks. All LZ decompression, midgame sequences.

(osilib.lib, include\osi\*.h, midgame.c, intovl.c, barracks.c, arcade.c, hi54.c, lo54.c, lo35.c, mkinsdat.c, merge.c)

PAUL ISAAC - collisions, stars, dust, autopilot, futurions, capital ship intelligence, warping in and out, blowing up asteroids, all mission data (especially MISMAKE.C), explosions, damage, mine firing and detonation.

(space.c, ship.c, init.c, dat\mismake.c, autopil.c, briefing.c, brief2.c, brains.c)

KEN DEMAREST - intelligence routines, collision avoidance, cockpit drawing routines, auto-targetting, navigation maps and legends, the barracks screen, chalkboard and chalkboard competition, parts of the arcade game, all communications, the battle view, autopilot, hazards (asteroids and mines) and the save and load game, copy protection. Also the "battle view" and the "autopilot view." Weapons firing of all kinds. Also Vector\_magnitude and Collision\_check routines, the binary tree searcher, and wingmen communications.

(smarts.c, flight.c, brains.c, logic.c, cockpit.c, damage.c, target.c, barracks.c, navigate.c, comm.c, comm1.c, death1.c, arcade.c, rare.c, campaign.c, trigs.c, math.asm, hazards.c, copypro.c, battle.c, space.c)

HERMAN MILLER - all sound drivers. (strax.drv)

#### WING COMMANDER DEMO DISKS AND SCREEN SHOTS

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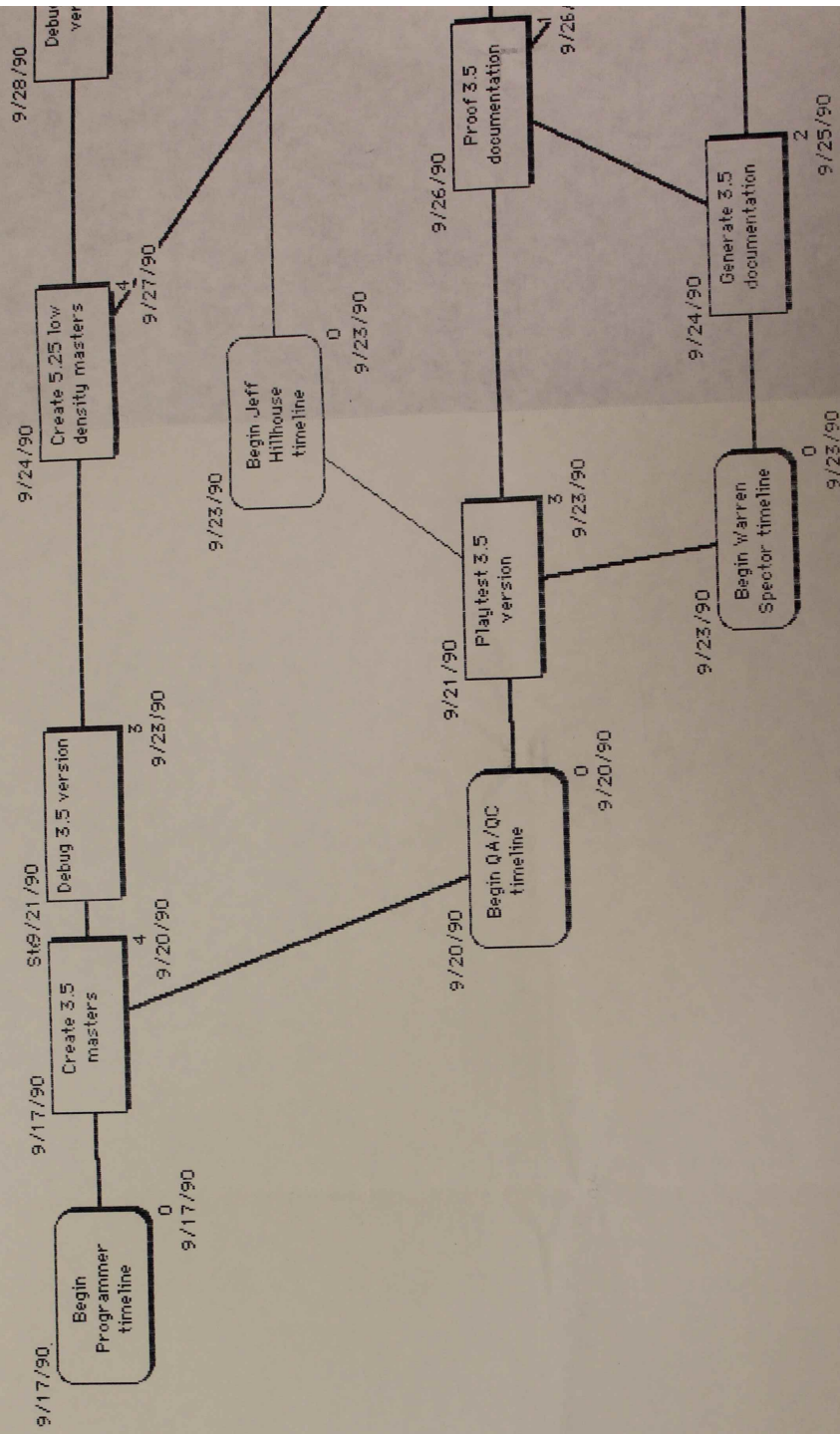
This is pretty self-explanatory. The demo software is more primitive than the full-blown Wing Commander, but does contain code for recording and playing back action sequences. Chris Roberts is entirely responsible for this code and the ways in which it differs from the main WC. Also present on these disks are various dramatic screen shots distributed to the press.

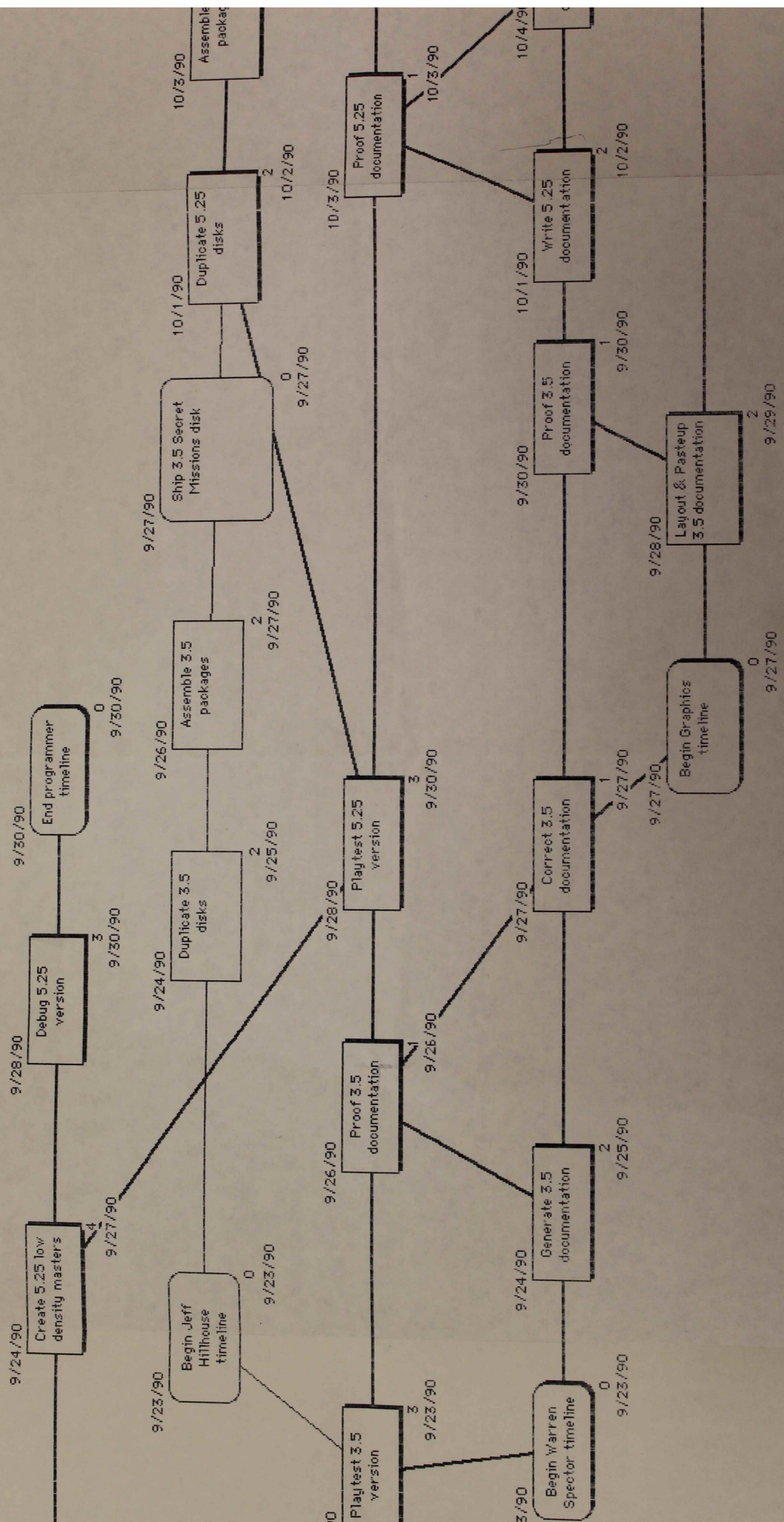
## UTILITIES

The Norton Utilities 5.0, especially FF.EXE. MAPMEM.COM, which describes your main and expanded memory. GREP.EXE, and DYNABOOT, which allows you to reboot with different configurations in your autoexec.bat and config.sys.

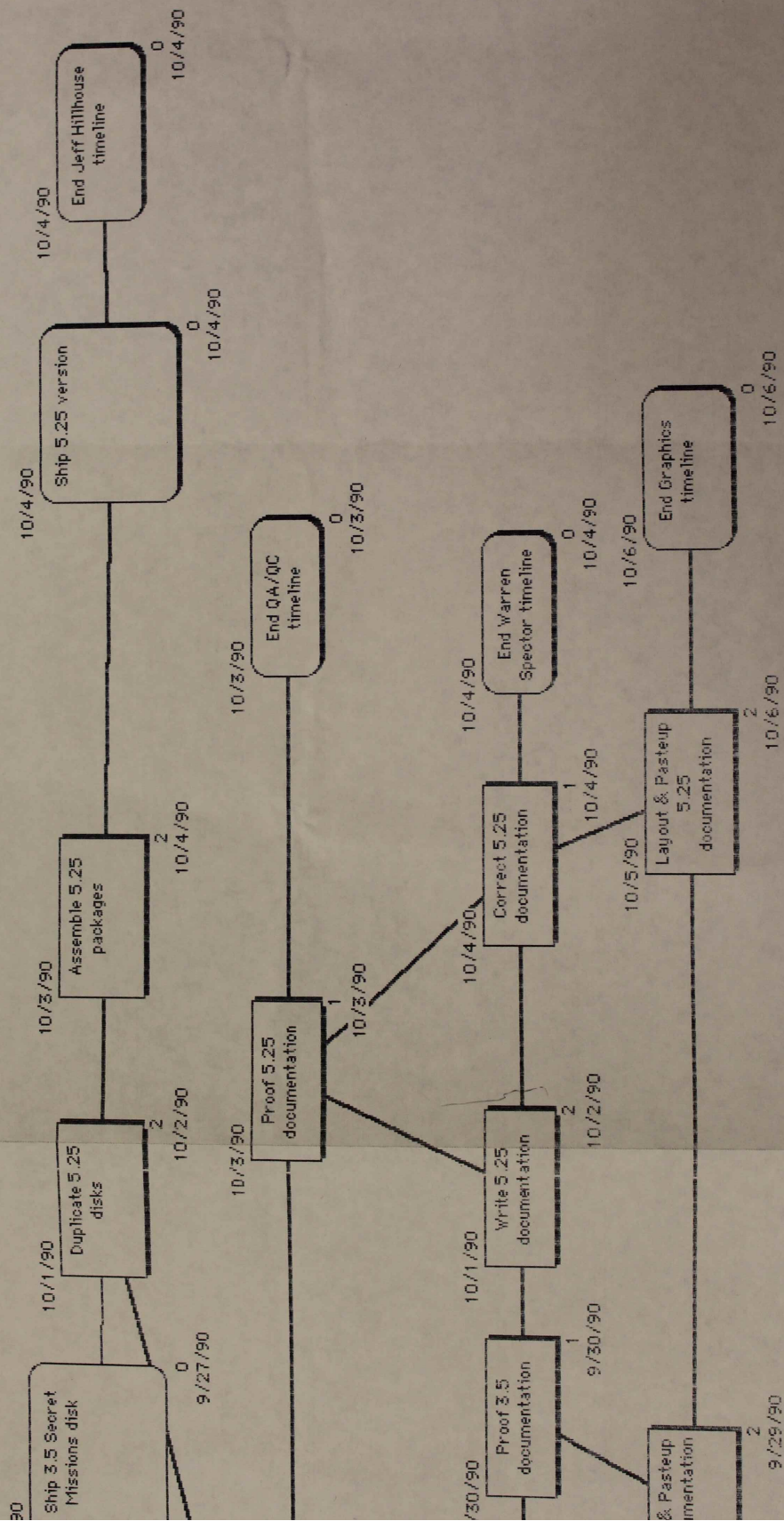


# WING COMMANDER 3.5"/5.25" LD Schedule 9/17/90 v 1.0









## MEMO

**SUBJECT: Wing Commander Work Schedule**

**DATE: August 27, 1990**

Everyone is very much aware of the stringent schedule we have been operating under for completion of Wing Commander. Almost everyone has been contributing more than 100% effort towards this goal for a few months now.

Even with the extra effort put in by everyone, the schedule is still in jeopardy. We have 14 days remaining to our Zero Bug Date of 9/9. This will give us 6 days of a clean version prior to our Duplication Date of 9/15.

**IT CANNOT BE OVER STRESSED THAT**

**\*EVERY\*SINGLE\*DAY\*IS\*CRITICAL\* AND CANNOT BE RECOVERED!**

This conclusion was reached by every individual on the Wing Commander team during our meeting on Friday that Robert attended. At the conclusion of that meeting, I requested for EVERY individual to write down their personal work schedule for the next two weeks and leave it on my desk BEFORE THEY LEFT THAT DAY. I remained in the office till 8:00 pm that evening and NOT A SINGLE SCHEDULE showed up on my desk.

I overlooked this, expecting everyone to honor the spirit of the meeting and come in during the weekend and drop off their schedules then. Not a single schedule has showed up yet.

There have been complaints over the last many weeks about how unfair it is of ORIGIN to request so much time of everyone. There have been complaints from some programmers that they have nothing to come in for and they are going to be upset if all they do when they come in is test the game. If all they do IS TEST \*THEIR\* GAME! If all they do IS TEST \*THEIR\* CODE! I \*NEVER\* want to hear this again! I personally came in both Saturday and Sunday and tested mission briefings/debriefings/rec room sequences. I've never even hardly played the game, yet I was able to contribute towards



completing this product. All I had to do was ask a few questions of a few people and I saw plenty that me, or anyone as unqualified as me, could do to help. So, I don't \*EVER\* want to hear that \*ANYONE\* on the Wing Commander team doesn't have anything to do!

I had a FULL compliment of QA personnel in here this weekend. EIGHT TESTERS! On Sunday we ran into a problem that left me and two other testers looking for busy work or twiddling our thumbs for three hours until it was corrected. It took three hours because ONLY ONE WING COMMANDER PROGRAMMER SHOWED UP!

Now, if I sound angry about this, ITS BECAUSE I AM. I don't know whether I should be or not. On one hand I see everyone putting in a lot of time and effort. On the other hand, I see more time and effort that could be put in. Should I just throw in the rag and accept that the 110% everyone is putting in is all I have a right to, even though it may not be enough to finish this product on time? Or should I continue to push and ask and beg and cajole every ounce of effort out of every single individual on the project while we still have a good chance of accomplishing our goal? I don't know which is the right choice. I am far from always being right in my decisions.

How important is it to ORIGIN that this product be released on time? I have been told, just as everyone else has, that it is critical for several reasons. It is important for cash flow financial purposes. It is important because of distributor relationships and their perceptions of ORIGIN's reliability. It is important as an accounts receivable collection tool. Does this mean that if we are two weeks late that ORIGIN is going to go out of business? I don't know? Nobody really knows? I for one don't want to have to find out the hard way. Me and everyone else is getting tired of hearing about our financial problems. But getting tired of hearing about them doesn't make them go away. Building good products on time and selling lots of them is what puts an end to hearing about financial problems.

Everyone is tired of working on one critical project after another. It's been this way since the beginning of 1989. All efforts are being made to correct our scheduling problems so we don't sweat every product we ever produce. We are endeavoring to schedule project completion dates as early as 6 months prior to ship dates. We are endeavoring to increase the manpower on a project as much as 50% beyond what we calculate the project may require. These, and other measures, will contribute towards a more normal work schedule for



all of us. But these measures cannot be implemented for Wing Commander and Savage Empire. We are locked into a strenuous schedule on these projects and there is nothing we can do about it. EXCEPT FINISH THEM!

I've been at ORIGIN for 5 years. That is 3 times longer than I've ever been at any other company. If ORIGIN were not the best company I've ever worked for, I would not still be here. Every effort is made to give ORIGIN personnel the most optimal work environment for human functioning. Problems still exist. They always will. You cannot put 50 people together and not expect there to be some problems. You cannot be a part of the very dynamic and changing entertainment software industry and not expect there to be some problems. Due to the industry's upheaval in 1989, ORIGIN was not able to adequately remunerate everyone for the valuable contributions they made to the company that year. Regardless of everyone's efforts, ORIGIN sustained a financial loss. I know this was very disappointing to everyone. But this industry does not follow any rules. We all take our chances as long as we want to be a part of it. Those of you who have been with the company long enough to have seen some positive financial times can attest to ORIGIN's generosity with its rewards. All things considered, every effort is taken to make ORIGIN the best damn place to work that anyone has ever seen. And every effort will continue to be taken to continue to assure this.

I want ORIGIN to be here next year and the year after and the year after, etc. Is Wing Commander critical to this? Maybe it is and maybe it isn't. My decisions are going to be based on the assumption that it is.

There are 14 days left. Every day is going to count. And I do mean **\*EVERY\*** day.

Starting August 27 and continuing thru the day that Wing Commander 5.25" High Density version is verified as duplicatable by QA/QC (and maybe even longer), the following personnel are on MANDATORY 60 hour weeks (minimum), 7 DAYS A WEEK:

- Ken Demarest
- Paul Isaac
- Steve Muchow
- Jeff George



- Steve Cantrell
- Marc Schaeffen
- John Watson
- Phil Brogden
- Scott Shelton

There will be \*NO EXCEPTIONS\* to working 60 hours per week. There will be only two allowable excuses for not working 7 days a week: 1) religious restrictions, and 2) personal medical complications.

Additionally, all hours will be worked at ORIGIN's office starting NO LATER THAN 10:00 AM daily. NO EXCEPTIONS.

The above may sound harsh. I wish it didn't. I would like to think that everyone wants to be a part of the team we've put together here at ORIGIN. I would like to think that everyone who isn't already doing so, will start thinking along the lines of what maximum effort can they contribute towards completing Wing Commander on time. I would like to think that everyone will start looking for whatever way they can to contribute towards finishing Wing Commander. I no longer find the attitude acceptable that anyone on the Wing Commander team doesn't have something to do. At the very least, everyone will be present at all times for optimal communication during this last stage of the project. At the very least, everyone will be testing the game until it is signed off. At the very least, everyone will act like they want to be a part of this team. If you can't, or don't want to be, a part of this team, then get off it.

I, for one, intend to throw everything at this project in an attempt to finish it on time. Let us finish it. Let us put it behind us. And let us move towards a methodology that minimalizes the need for this kind of herculean effort in the future.

Dallas Snell  
Vice President, Product Development



## WING COMMANDER

### NEW MANEUVERS:

TARGET LASER: Ship automatically targets and fires laser at enemy on this command.

TARGET MISSILE: Ship automatically locks and fires missile on enemy at this command.

STRAFE ENEMY: Head directly towards enemy at full non-afterburner speed firing lasers at target, avoiding target at last second.

STRAFE AND ROLL: Same as above except ship rotates in corkscrew fashion as in gloat

SUICIDE RUN: Only for the more dedicated aces. Fly straight toward enemy, firing lasers + missiles if operational, but no last second avoidance.

SHOOT MISSILE: Ship turns to face incoming missile and attempts to shoot it out of space before it hits mark.

### CODING FOR MANEUVERS:

### CODING FOR EVENTS:

offensive

- a) • Shoot Missile
- b) Kickstop
- c) Tight Loop
- d) Hard Brake
- e) Sit'n'Spin
- f) Turn'n'Spin
- g) Burnout
- h) Wobble
- i) Roll
- j) Hard Turn
- k) Fishhook
- l) Split-Left
- m) Sit'n'Kick
- n) Kickit
- o) Turn'n'Kick
- p) ■ Rout
- q) Drop A Mine
- r) Split-Right
- s) Intercept
- t) Zig-Zag
- u) ■ Gloat

offensive

- v) • Tail
- w) • Target Laser
- x) • Target Missile
- y) • Strafe Enemy
- z) • Strafe And Roll
- " ) • Suicide Run
- \ ) Zig-Zag Pitch
- ! ) Barrel-Up
- \$ ) Barrel-Down
- # ) Safe Break

- 1) Enemy greater then 1500 away
- 2) Enemy Tailing you
- 3) Less then 1500 and infront of each other
- 4) Less then 1500 and behind enemy
- 5) Incoming missile
- 6) Hit by lasers from behind
- 7) Ship has taken minor damage
- 8) Ship has taken majour damage
- 9) Enemy destroyed

REFLECTOR





Wing Commander Scene Director  
Scene Director Instructions  
Prepared July 28, 1990  
by Jeff George

=====  
SceneDirector allows the user to program cinematic scenes to appear within computer games. Each scene is broken up into a number of separate shots, consisting of a foreground image, a background image, a speaker, and a sentence or two of text. Graphic effects and animation may be programmed into the sequence, but this occurs outside the SceneDirector file.

SceneDirector files are written as C files, in normal C syntax. A typical shot in a SceneDirector file looks like this:

```
/* 01 */  
{  
  V_COMMANDER,S_COMMANDER,B_BRIEFING_PILOTS,15,  
  JMP_WINGMAN_DEAD(00,02),  
  "Epsilon Wing is $C and Spirit.",  
  "apsalanwigasdipstikadsparat",  
  REPEAT BLINK(1) AHEAD(35) BLINK(1) AHEAD(30) BLINK(2),  
},
```

The first line, a numeral within comment marks, is the shot number. Shot numbers must currently be entered by hand, and corrected by hand if a shot is added or deleted from the scene. Though the shot number at the beginning of each shot is ignored by the code and is useful only to the user as a referent, it is vital that shot numbers be accurate. With no provision for labelling in SceneDirector, jumps and branches must be hard wired with the destination shot number--inaccurate shot numbers can create mind-numbing bugs in a Scene.

The second line (ignoring the line that includes only an open-brace) sets up the graphics for the shot. The first argument is the foreground image, or "view." The next is the speaker, or person who is "saying" any text that appears with the scene. The third argument is the background. Often, the View includes a background, making a separate background unnecessary; in such a case, enter "B\_NOT\_NEEDED". The final argument on the first line is a numeral, indicating the number of frames the the shot should hold after the speaker has finished his line. The exact duration of a frame is not known, so we are guessing a bit with regard to the most appropriate number for this slot. In general, a number between 10 and 30 seems to be appropriate, with longer text messages calling for longer shots.

The third line handles any branching or jumping required in the shot, usually to reflect different possible conditions in the game. All jump statements begin with JMP; most check a condition which is described by the rest of the name for the jump statement. The nubmers in parentheses describe the value which the condition is compared to, if appropriate, and



the shot to which the scene will jump if the condition is met. For example, the jump statement in the example above checks to see if a wingman is dead; if wingman 00, Spirit, is dead, the scene jumps to shot number 02 BEFORE executing shot 01.

The fourth line in the shot lists any text to be printed with the shot. To indicate who is speaking, the text is printed in a different color for each speaker--this is one of the things that the "Speaker" argument on line 2 determines. The speaker may be on or offscreen. If NO character in the scene is speaking the text, as when expository or descriptive text is presented, the Speaker should be set to S\_NARRATOR on line 2.

The fifth line is the phonetic version of the text message, which drives the speaker's lip movements as he "speaks" his line. If the speaker is offscreen, or if the narrator "speaks" the line, the phonetics line is left blank, like this: "",

To explain how text is translated to phonetics would be unproductive, since it is mostly an instinctive process anyway. Take a look at a number of examples in previous SceneDirector scenes to get the gist of the process.

The sixth and final line of a shot controls the eye movements and expressions of the character onscreen in a close-up. Each eye position is listed in order, along with the number of frames it should hold. For most expressions, 30 frames is adequate; faster will give the impression of nervousness or excitement, while longer looks will give the impression of anger or frustration. In general, a BLINK should come with any change of eye position--humans tend to blink when they adjust their gaze. Note that if the current shot is NOT a close up, these eye movements are not necessary and this line should be left blank: "",

#### EXISTING SHOTS, COMMANDS, ETC.

##### Views:

V_BRIEF_SETTLE	Long shot of briefing room, with pilots animated to take their seats; use at beginning of briefing only. BG not needed.
V_BRIEF_LONG	Long shot of briefing room with pilots seated and commander at podium. BG not needed.
V_PODIUM	Medium shot of commander at podium. BG not needed.
V_PAN_TO_SCREEN	Medium shot, starting on commander at podium, panning left to video screen. BG not needed.
V_SCREEN	Close-up view of video screen. Special BG-- enter numeral (0, 1, 2, etc.) to highlight a mission objective on the screen.

=====  
SceneDirector Documentation  
Page 2

WING COMMANDER  
July 30, 1990



V\_DISMISSED Long shot of briefing room; pilots getting up from seats to head for hangar. Segues automatically to scramble scene of pilots running down hall.

V\_MEDAL\_ESTABLISH Long shot used to establish medal ceremony, depicting commander and PC before the assembled pilots. BG not needed.

V\_MEDAL\_CEREMONY Medium-long establishing shot used in medal ceremony; depicts the PC and commander in the foreground, and the rest of the pilots in the background. BG not needed.

V\_PIN\_MEDAL Special closeup of PC's chest, with commander's hand pinning on a medal. BG not needed.

V\_MEDAL\_CLAPPING Like V\_MEDAL\_CEREMONY, but pilots in background are animated to applaud the PC's award. BG not needed.

V\_COMMANDERS\_OFFICE Medium shot of commander in his office at his desk. The commander can be placed in each of four positions, as follows:

V\_COMMANDERS\_OFFICE\_WINDOW  
Commander is standing behind desk with back to camera, staring out window.

V\_COMMANDERS\_OFFICE\_SHOULDER  
Commander is still standing to face out window, but his head is turned to address the PC over his shoulder.

V\_COMMANDERS\_OFFICE\_STANDING  
Commander is standing behind desk, facing PC and camera.

V\_COMMANDERS\_OFFICE\_SEATED  
Commander is seated at his desk, facing the PC and the camera.

None of the V\_COMMANDERS\_OFFICE\_etc. shots require separate backgrounds.

V\_SAME Repeats View from previous shot. In general, avoid using it, as it tends to lead to problems with speakers and branching.

V\_END Used to indicate the end of the scene.



### Character shots:

The character close-ups are slightly different than the rest of the views. Each requires a separate background (see below), and the eye movements must be programmed whenever a close-up is used. Further, certain restrictions must be obeyed when placing the wingmen in the Rec Room: each wingman may only be placed on one side of the table--either the right or the left. Also, when referring to a wingman in a jump-check, you must use his number (00 to 07); these numbers are listed below with their shot names.

<u>NO.</u>	<u>View</u>	<u>Left/Right</u>	<u>Real Name</u>
00	V_SPIRIT	L	1st Lt. Tanaka Mariko
01*	V_DART	R	Capt. Ian St. John
02	V_BOSSMAN	R	Major Chen ???
03	V_ICEMAN	L	Major Michael Casey
04	V_ANGEL	R	Capt. Jeannette Devereaux
05	V_PALADIN	L	Major James Taggart
06*	V_JOKER	L	2nd Lt. Todd Marshall
07	V_KNIGHT	R	Capt. Joseph Khumalo
--	V_COMMANDER	--	Col. Walter Halcyon
--**	V_BARTENDER	--	Maj. Sam Walker (Ret.)

\*DART and JOKER are old call signs; they have been changed to HUNTER (for Dart) and MANIAC (for Joker). In text, refer to these characters by their current call signs; for the present, however, in shot commands and other code instances, use the old names.

\*\*The Bartender calls himself Shotgun, his own call sign from the days when he was a fighter pilot himself.

### Speakers:

For every character view (V\_SPIRIT, V\_COMMANDER, etc.) listed above, there is a corresponding speaker designation, which is called S\_SPIRIT, S\_COMMANDER, or similar. In addition to those listed above, there is also the designation S\_NARRATOR, which is used when the text is expository or narrative, and is not spoken by any character.

### Backgrounds:

B_NOT_NEEDED	Used with Views which do not require a separate background.
B_BRIEFING_WALL	Goes behind the commander's head in close-ups in the briefing room.
B_BRIEFING_PILOTS	Used behind pilot's heads in close-ups in the briefing room.

WING COMMANDER  
July 30, 1990

SceneDirector Documentation  
Page 4



B\_BAR Used behind the bartender's head in the Rec Room.

B\_REC\_ROOM\_PILOT\_RIGHT Used behind the head of a pilot sitting in the right-hand chair (as we see them) in the Rec Room.

B\_REC\_ROOM\_PILOT\_LEFT Used behind the head of a pilot sitting in the left-hand chair in the Rec Room.

B\_FUNERAL Used to put the commander in a Vacc Suit for the funeral.

B\_FUNERAL\_SALUTE Used to make the commander salute during the funeral.

B\_COMMANDERS\_WINDOW Used behind the commander in his office.

B\_COMMANDERS\_WALL Used behind the pilots (including the PC) in the commander's office.

B\_DEBRIEFING\_COMMANDER Used behind the commander in the debriefing.

B\_DEBRIEFING\_PILOT Used behind the pilots (inc. PC) in the debriefing.

#### Existing Jump Commands:

JMP(y) Jump to shot y.

JMP\_WINGMAN\_DEAD(x, y) *(has been for a while)*  
If wingman x ~~is~~ dead, jump to shot y.

JMP\_WINGMAN\_ALIVE(x, y)  
If wingman x is alive, jump to shot y.

JMP\_OBJECTIVE\_ACHIEVED(x, y)  
If objective no. x (in mission data) was achieved in last mission, jump to shot y.

JMP\_OBJECTIVE\_FAILED(x, y)  
If objective no. x was not achieved in the last mission, jump to shot y.

JMP\_GOOD\_SCORE(x, y)  
If the player's score for the last mission was equal to or greater than x, jump to shot y.

JMP\_BAD\_SCORE(x, y)  
If the player's score for the last mission was less than x, jump to shot y.



JMP\_COMPLETE\_MISSION Perfect

JMP\_INCOMPLETE\_MISSION

JMP\_WINGMAN\_KILLED *Wingman was killed on this mission.*

JMP\_PC\_BLANKED(y) If the PC did not kill a single ship in the last mission, jump to shot y.

JMP\_PC\_SCORED(y) If the PC killed at least one enemy ship in the last mission, jump to shot y.

JMP\_WINGMAN\_BLANKED(y) and JMP\_WINGMAN\_SCORED(y)  
As above, but checking for wingman.

JMP\_NO\_OFFICE(y) If the PC will not be called to the commander's office after the briefing (to receive a promotion or be transferred to another ship type), jump to shot y.

#### Eye Positions

The following eye positions are available in SceneDirector for Wing Commander:

CLOSED

LEFT

RIGHT

AHEAD

DOWN

SCARED

GLARE

COCKED (Eyebrow cocked in quizzical or skeptical expression)

HALF (half-closed)

BLINK is a special eye "position," programmed to cycle through half-closed and closed eye positions; the number of frames listed for the eye position determines the length of time the eyes remain in the CLOSED position in the middle of the blink.

#### Strings

The following strings are already programmed and available to be called within the text of a SceneDirector scene:

\$C PC's call sign

\$N PC's last name

\$R PC's Rank

\$W Current wingman's call sign

\$S Current system name

\$T Current time

\$D Current date

\$E Encounter date, used to refer to the most recent mission

\$A Medal PC is currently receiving or most recently qualified for

\$K Your kills (#) in most recent mission.

\$L Your wingman's kills (#) in most recent mission.

=====  
SceneDirector Documentation  
Page 6

WING COMMANDER  
July 30, 1990



WING COMMANDER  
WINGMAN PROFILES  
Prepared July 26, 1990  
=====

For each pilot, I have listed call-sign, rank and name, and a one-word adjective that sums up their personalities and flying styles.

Spirit - 1st Lt. Tanaka Mariko (Inscrutable)

Quiet and demure, Lt. Tanaka is nonetheless a deadly pilot. Known for holding her fire until she is absolutely sure of her shot, she seldom misses her target. Her call sign stems from her uncanny ability to avoid incoming missiles and evade enemy laser fire. Spirit has a strong, Japanese sense of honor, respecting her superiors and obeying them faithfully.

Hunter - Captain Ian St. John (Brash)

Bold and brash, Hunter is the rebel of the Tiger's Claw. He is confident, outgoing and jovial, facing every challenge with a rich sense of humor. As a pilot, he is one of the best on the Claw, but his irreverence and independence have earned him a reputation as reckless and suicidal.

Bossman - Major Chen (need Chinese personal name from Ninja Hero) (Professional)

The unofficial leader of the active pilots on board the Claw, Bossman is an experienced veteran. He is well-respected among the pilots, and is the one to whom younger pilots are most likely to turn for tactical advice. A consummate professional, Chen leads the other pilots through his perfect, by-the-book example.

Iceman - Major Michael Casey (Remote)

Most of the pilots on board the Claw are just a bit afraid of Iceman. He is the 27th century equivalent of Leone's Man With No Name. Casey lives for only two things--to fly starfighters, and to take vengeance upon the Kilrathi. In battle, he is simply the most effective pilot the Claw has to offer; on the carrier, he is cold and aloof, keeping mostly to himself.

Angel - Captain Jeannette Devereaux (Zealous)

Angel is the resident zealot of the Tiger's Claw. She is completely dedicated to the struggle against the Kilrathi, and devotes all her spare time to studying intelligence reports, star charts, mission reports, etc., in a never-ending quest to improve the Confederation's efficiency in the war. A competent pilot, she is known for her marksmanship with ship's guns, as well as her fanatic adherence to mission plans. She will not tolerate the slightest deviation from orders, particularly if it means abandoning the main mission objectives.

Paladin - Major James Taggart (Avuncular)

The oldest among the active pilots serving on the Claw, Major Taggart is looking at mandatory retirement in the very near future. A grizzled veteran, he joined the Terran Star Force before the beginning of the



twenty-year war. He is warm and friendly, always ready with a story relevant to the topic at hand. While Bossman may be the recognized authority on fighter piloting, Paladin is the ship's authority on life. When flying on another pilot's wing, he tends to be a bit over-protective, flying behind his wingleader so that he may more effectively protective the other pilot's blind spots.

Maniac - 2nd Lt. Todd Marshall (Eager)

Fresh from the Terran Naval Academy on Proxima Centauri IV, Lt. Marshall is ready to make a name for himself. He landed an assignment on the Claw because of his excellent ratings at flight school--most pilots serve on a less-distinguished ship before earning a place on the Terran flagship. Though he is talented, he is careless and overconfident; he may mature into an individual much like Hunter, if he survives that long.

Knight - Captain Joseph Khumalo (Solid)

Knight is the middle-of-the-road man on board the Tiger's Claw; he is neither reckless nor cowardly, neither brilliant nor incompetent. He is friendly and well-liked, and is considered one of the most reliable wingmen on the Claw. Capt. Khumalo is not addicted too adrenalin highs, like Hunter and Maniac, nor is he driven by hatred or zealotry, like Iceman and Angel. He is just a good, honest soldier, doing his part because it needs doing, not because he derives some special thrill from it.



WING COMMANDER  
GAMEFLOW DATA  
Prepared July 29, 1990

=====  
Series 01

Ship: Hornet

Objectives:

M00 {2,2,2,2,...}

M01 {1,1,6,1,...}

Medals: {Bronze, 25; Silver, 40;...}

Branch: Key Score: 10

	<u>Next Series</u>	<u>Next Ship</u>
If => Key:	02	Scimitar
If < Key:	03	Hornet

Series 02

Ship: Scimitar

Objectives:

M00 {2,2,2,2,2,...}

M01 {1,10,1,...}

M02 {1,2,8,5,1,...}

Medals: {Bronze, 40; Silver, 60; Gold, 85}

Branch: Key Score: 30

	<u>Next Series</u>	<u>Next Ship</u>
If => Key:	04	Raptor
If < Key:	05	Scimitar

Series 03

Ship: Hornet

Objectives:

M00: {2,2,2,2,...}

M01: {20,...}

M02: {0,5,10,1,...}

Medals: {Bronze, 40; Gold, 50; Silver, 50;...}

Branch: Key Score: 30

	<u>Next Series</u>	<u>Next Ship</u>
If => Key:	05	Scimitar
If < Key:	06	Hornet



#### Series 04

Ship: Raptor

##### Objectives:

M00 {0,10,2,...}  
M01 {1,3,3,3,...}  
M02 {0,1,1,1,1,1,1,1,1,1,...}

Medals: {Silver, 100; Bronze, 50; Silver, 60;...}

Branch: Key Score: 25

	<u>Next Series</u>	<u>Next Ship</u>
If => Key:	07	Raptor
If < Key:	05	Scimitar

#### Series 05

Ship: Scimitar

##### Objectives:

M00 {3,3,1,1,...}  
M01 {0,2,10,0,...}  
M02 {0,10,0,...}

Medals: {Bronze, 75; Silver, 70; Silver, 65;...}

Branch: Key Score: 30

	<u>Next Series</u>	<u>Next Ship</u>
If => Key:	04	Raptor
If < Key:	05	Scimitar

#### Series 06

Ship: Hornet

##### Objectives:

M00: {1,5,5,0,...}  
M01: {2,10,0,...}  
M02: {0,3,3,3,3,3,0,...}

Medals: {Bronze, 65; Gold, 80; Silver, 70;...}

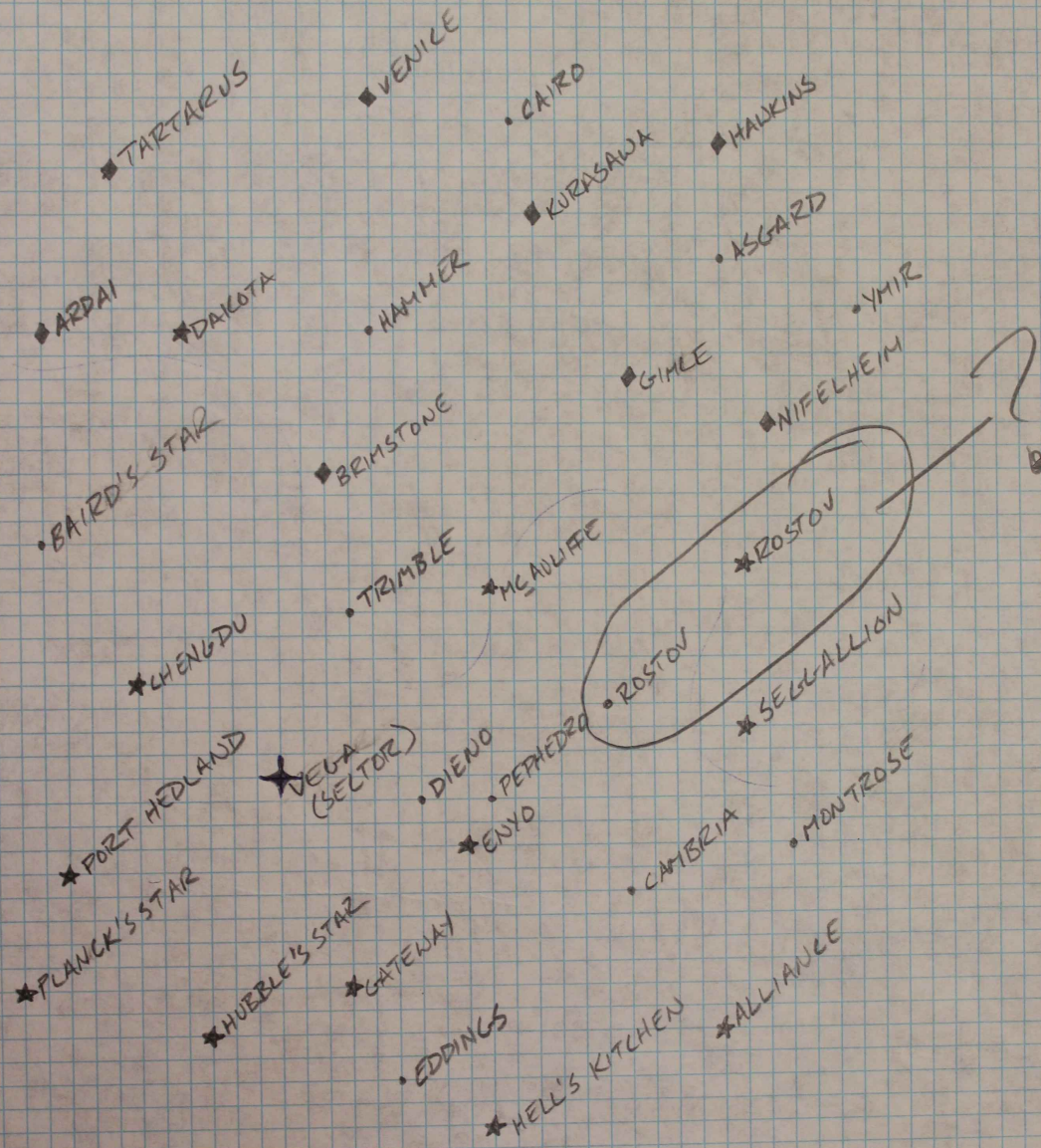
Branch: Key Score: 35

	<u>Next Series</u>	<u>Next Ship</u>
If => Key:	05	Scimitar
If < Key:	08	Scimitar



# VEGA SECTOR

(Add B. Back)



← GALACTIC CENTER

1 = 1 PARSEC

★ = TERRAN CONFEDERATION CONTROLLED

◆ = EMPIRE OF KILRAH CONTROLLED

• = NEUTRAL OR UNCONTROLLED

★ = SECTOR STAR



ORIGIN

"NEW PRODUCT" MATERIALS STATUS LOG

WARREN

Page 1 of 1 Last update: 8-17-90

## PRODUCT: WING COMMANDER

COMPONENT	Box	Manual	Blueprints	Reference Card	Disk Labels	Package Label
INITIATED BY	Cheryl	Warren/Mike	Glen/Cheryl	Warren/Cheryl		
1ST DRAFT		8/13 - 8/20	Art done 8/27	8/13 - 8/24	8/20 - 8/21	8/20 - 8/21
2ND DRAFT		8/20 - 8/22	Text done 8/29	8/27 - 8/30	8/22 - 8/23	8/22 - 8/23
FINAL COPY	DONE	8/24	8/31	8/31	8/27	8/27
PRELIM. LAYOUT		8/20 - 24	8/29 - 8/31	8/28 - 8/29	8/23 - 8/24	8/23 - 8/24
TIGHT LAYOUT		8/27 - 28	9/4 - 9/5	9/4 - 9/5	8/27 - 8/28	8/27 - 8/28
FINAL LAYOUT	DONE	8/29	9/6	9/6 - 9/7	8/28	8/29
APPROVAL SIGNOFF	DONE	8/30	9/5	9/6	8/29	8/30
MECHANICALS DONE	DONE	8/30	9/6	9/7	8/30	8/31
COLOR SEPARATION	DONE	N.A.	N.A.	N.A.	N.A.	N.A.
FINAL PROOFS	DONE	8/31	9/6	9/10	8/31	9/4
AT PRINTER	8/16 - 9/6	9/4 - 9/13	9/7 - 9/13	9/11 - 9/13	9/4 - 9/14 (A)	9/5 - 9/14 (B)
DUE @ ORIGIN						
DUE @ STARPAK	9/14				@ disk duplicator	@ Star Pak
ASSEMBLY	9/17 - 9/25					
MARKET RELEASE	9/26					
SPEC/DESCRIPTION	large box	48 pages <sup>23 Done</sup> <sub>20 ship</sub>	Set of 4	6 panels total		
		2/c cover	1/c, 1 side	1/c, 2 sides		
		5 1/2" x 8 1/2"	11" x 17" ea.			
		saddle-stitched				
QUANTITY	50,000	50,000		25,000	25,000 each	25,000
COGS PER ITEM	.45	.40	.20	.10	included below	.04
SUG. RETAIL PRICE	\$ 69.95			DISKS: 5.25 H.D. QTY: 3	COST EA.: .76	TOTAL \$ 2.28
COGS RATIO	8 %			DISKS: 5.25 L.D. QTY: 10	COST EA.: .46	TOTAL \$ 4.60
TOTAL COGS: BUDGET	\$ 5.60			DISKS: 3.5 L.D. QTY: 5	COST EA.: .72	TOTAL \$ 3.60
TOTAL COGS: ACTUAL	5.25HD \$ 3.83 <sup>OK</sup>	5.25LD \$ 6.15 <sup>OVER</sup>	3.5LD \$ 5.15 <sup>OK</sup>	1.25	ASSEMBLY COST	\$ 33+ .03%
OTHER/COMMENTS	• 20 samples	1/c cover, 2/c text	First thing to	Will need screen	"Fancy logo"	
• Disks to be duplicatable on 9/15 (5.25" HD)	@ OSI 8/24	= 45¢ - 50¢	be cut.	shot dumps	labels cost .01¢	
• "What You See Is What You Play" promo label for box front .0235¢ (UB)		Inside 20 pg. of art may not be done until 9/21.		reduced.	more each.	
		"Claw's Mark" logo				
		Mike H. to layout.				



ORIGIN

## "NEW PRODUCT" MATERIALS STATUS LOG

Page 1 of 1 Last update: 8-17-90PRODUCT: SAVAGE EMPIRE

COMPONENT	Box	Magazine	Map	Reference Card	Disk Labels	Package Label
INITIATED BY	Cheryl	Johann/Craig	Daniel/Cheryl	Johann/Mike		
1ST DRAFT		DONE		8/16 - 8/31		
2ND DRAFT		8/22 - 8/29		9/4 - 9/11		
FINAL COPY	DONE	9/4		9/12		
PRELIM. LAYOUT		DONE	DONE	9/12 - 9/13	9/4 - 9/7	9/4 - 9/7
TIGHT LAYOUT		8/22 - 8/27		9/14 - 9/17	9/10 - 9/12	9/10 - 9/12
FINAL LAYOUT	DONE	9/5 - 9/7		9/18	9/13	9/14
APPROVAL SIGNOFF	DONE	Cover: 8/29 Text: 8/18-13	8/30	9/19-20	9/12	9/13
MECHANICALS DONE	DONE	Cover: 8/14 Text: 8/14	8/31	9/21	9/13	9/14
COLOR SEPARATION	DONE	Cover Only: 9/4-9/7	9/4-9/7	N.A.	N.A.	N.A.
FINAL PROOFS	DONE	9/7	9/7	9/24	9/14	9/17
AT PRINTER	8/16 - 9/6	Cover: 9/10-9/14 Text: 9/17-9/28	9/10 - 9/28	9/25 - 28	9/17 - 9/28 (A)	9/19 - 9/28 (D)
DUE @ ORIGIN						
DUE @ STARPAK	9/28					
ASSEMBLY	10/1 - 10/9					
MARKET RELEASE	10/10					
SPEC/DESCRIPTION	large box	1/C cover 1/C text 52 pgs. + cover 5 1/2" x 8 1/2" saddle-stitched	17" x 17" 4/C	8 panels 1/C, 2 sides		
QUANTITY	50,000			25,000	25,000 each	25,000
COGS PER ITEM	.45	.40	.19	.11	included below	.04
SUG. RETAIL PRICE	\$ 59.95			DISKS: 5.25 H.D. QTY: 3	COST EA.: .76	TOTAL: \$ 2.28
COGS RATIO	7 %			DISKS: 5.25 L.D. QTY: 7	COST EA.: .46	TOTAL: \$ 3.22
TOTAL COGS: BUDGET	\$ 4.20			DISKS: 3.5 L.D. QTY: 4	COST EA.: .72	TOTAL: \$ 2.88
TOTAL COGS: ACTUAL	5.25HD \$ 3.83	5.25LD \$ 4.77	3.5LD \$ 4.43	1.55	ASSEMBLY COST	\$ .33 + .03
OTHER/COMMENTS	• 20 samples @ OSI 8/24	• art done 8/18 • 4-5 pgs. related to QA to follow later (magic, etc.)	• need photocopies			

\*add TM: "Ultimate Adventures Magazine"

• overnight shipping vs 2nd-day on all materials



ORIGIN

"NEW PRODUCT" MATERIALS STATUS LOG

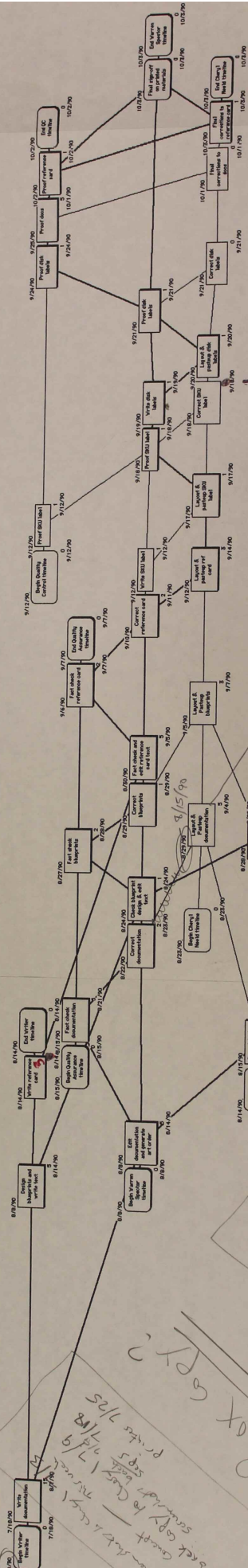
Page 1 of 1 Last update: 8-17-90PRODUCT: QUEST FOR CLUES III & SPECIAL EDITIONS: WC & SE

COMPONENT	<u>QFC 3 Book</u>	<u>W.C.; Mission Disk</u>	<u>W.C.; Hat</u>	<u>S.E.; Cluebook</u>	<u>S.E.; Shirt</u>
INITIATED BY	<u>Warren</u>	<u>Warren/Chris</u>	<u>Greg/Cheryl</u>	<u>Johann</u>	<u>Greg/Cheryl</u>
1ST DRAFT	<u>8/18 - 8/24</u>	<u>8/20 - 8/22</u>		<u>8/20 - 8/31</u>	
2ND DRAFT	<u>8/25 - 8/29</u>	<u>8/23 - 8/27</u>		<u>9/4 - 9/7</u>	
FINAL COPY	<u>8/30 - 9/4</u>	<u>8/29</u>			
PRELIM. LAYOUT	<u>8/29 - 9/5</u>	<u>8/27 - 8/30</u>		<u>9/10 - 9/13</u>	
TIGHT LAYOUT	<u>9/6 - 9/11</u>	<u>8/31 - 9/4</u>		<u>9/14 - 9/17</u>	
FINAL LAYOUT	<u>9/12 - 9/14</u>	<u>9/5 - 9/6</u>		<u>9/18</u>	
APPROVAL SIGNOFF	<u>9/14</u>	<u>9/7</u>		<u>9/19</u>	
MECHANICALS DONE	<u>9/17</u>	<u>9/10</u>		<u>9/19</u>	
COLOR SEPARATION	<u>Cover only: 8/27-8/30</u>	<u>9/11 - 9/13</u>		<u>N.A.</u>	
FINAL PROOFS	<u>9/18 - 9/21</u>	<u>9/14</u>		<u>9/20 - 9/25</u>	
AT PRINTER	<u>9/24 - 10/12</u>	<u>9/17 - 9/21</u>		<u>9/26 - 10/5</u>	
DUE @ ORIGIN		<u>9/21</u>	<u>9/21</u>	<u>10/5</u>	<u>10/5</u>
DUE @ STARPAK	<u>10/15</u>				
ASSEMBLY	<u>10/16 - 10/17</u>	<u>9/22 - 9/25</u>	<u>9/22 - 9/25</u>	<u>10/6 - 10/9</u>	<u>10/6 - 10/9</u>
MARKET RELEASE	<u>10/18</u>	<u>9/26</u>	<u>9/26</u>	<u>10/10</u>	<u>10/10</u>
SPEC/DESCRIPTION	<ul style="list-style-type: none"> <li>• Same specs as QFC 1 &amp; 2.</li> <li>•</li> </ul>				
QUANTITY	<u>15,000</u>	<u>1,000</u>	<u>1,000</u>	<u>20,000</u>	<u>1,000</u>
COGS PER ITEM					
SUG. RETAIL PRICE \$					
COGS RATIO %					
TOTAL COGS: BUDGET \$					
TOTAL COGS: ACTUAL	<u>5.25HD \$</u>	<u>5.25LD \$</u>	<u>3.5LD \$</u>		
OTHER/COMMENTS	<p><u>COGS:</u> <u>24.99/6/#1.50</u> <u>19.95/10/#2.00</u> <u>9.95/30/#3.00</u> <u>12.95/8/#1.00</u> <u>12.95/31/#4.00</u></p> <ul style="list-style-type: none"> <li>• All solutions here.</li> <li>• Art done 8/22.</li> <li>• Shay to do intro.</li> <li>• Cover art done.</li> <li>• 94 disk for playing</li> <li>• Outer package</li> <li>• 4/c with instr.</li> <li>• 1/c on inside</li> <li>• use text card?</li> <li>• 2) disk labels</li> <li>• (46 = 80 pg, 1.696)</li> <li>• 2/c cover,</li> <li>• 1/c text</li> <li>• 64 pgs,</li> <li>• Art: 8/20-9/7</li> </ul>				

WING COMMANDER "SECRET MISSIONS" DISK

DISKS: 5.25 H.D.	QTY: 1	COST EA.: .76	TOTAL: \$
DISKS: 5.25 L.D.	QTY: 3	COST EA.: .46	TOTAL: \$
DISKS: 3.5 L.D.	QTY: 1	COST EA.: .72	TOTAL: \$
		ASSEMBLY COST	\$ .3





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TO: Warren Spector  
CC: Chris Roberts  
FROM: The Fat Man  
DATE: 6/24/90  
RE: Further music for Wingleader

Warren,

Sounds fun! Creating 32 cues (in roughly a month? Is that your schedule?) as per your fax is challenging, but do-able. I'll start right after I've finished battle music for Savage Empire (roughly Tues. afternoon.)

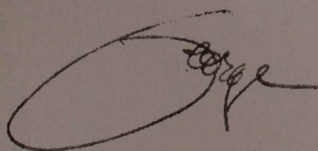
Regarding cost, we're in the ball park. I see it as more like \$1549.00. I'd be charging \$99.95 for all of the "P" pieces, give you 2-for-one on the "T" pieces (if under 20 seconds is OK with you--over 20 seconds is a full piece), and 4-for-one on the "V" pieces (if short stings are what you want for these. If I'm misinterpreting your needs, let me know.)

The 4-for-1 price is low--I usually charge 2-for-1, even for stings. I see a challenge in making a lot of interesting segments that can lead into each other, but I'm not charging for that. I don't see any rush charges, either.

Remember, also, that each piece (again 2-for-one on "T"'s, etc.) will require an additional \$100 for rights beyond 5 years, and that I haven't yet billed you for this on the Wingleader pieces I've already done.

Let me know if these terms are acceptable, and if any T's need to be longer than 20 seconds, or any V's are longer than short stings. I need clarification on deadlines as well.

Sincerely,





\$1200

## DOGFIGHT

This is where the player will spend the bulk of his time in Wingleader, so it's where we need the greatest variety in the music. There are 12 distinct types of action, each of which requires its own theme. (Of course, each themes must segue as smoothly as possible into the others -- the action in a dogfight is fast and furious and changes constantly.)

The 12 themes required are:

pieces 8

1. Regular combat T
2. Being tailed T
3. Tailing an enemy T
4. Missile tracking you T
5. You're severely damaged - T
6. Killed your target B
7. Ally killed B
8. Your wingman's been killed B
9. Enemy ace/commander's been killed B
10. This one really counts! \* T
11. Overall victory \*\* B
12. Overall defeat \*\* B

\* For dogfights that have a lot riding on them, the "This One Really Counts!" tune replaces the regular repeating dogfight music with something a little darker, a little tenser. If this is impractical, we don't have to bother, but it'd be a nice touch.

\*\* Most missions will have conditions that signify overall victory or defeat -- these conditions may be as simple as "Ship #4 destroyed." Not all missions will have victory or defeat conditions, however -- the mission that currently exists, for example, is a simple patrol and should have neither. But killing an enemy carrier in an attack scenario would trigger Overall Victory; losing a tanker you were defending would call for Overall Defeat.

## FLYING

This is the between scenes, transitional music. Though it need not be as varied as the dogfight music, the flying tunes can help convey the sense of what's going on. Transitions are important here. The player should hear a cry to arms as the enemy is sighted; dull, boring routine could turn into an alert patrol with a single message from the player's commander; a hopeless mission could turn into a gung-ho, get 'em boys slugfest with a few well-placed missiles (and a lot of luck!).

There are 8 different flying themes:



3 pieces

- T 1. Returning to carrier triumphant
- T 2. Returning defeated
- T 3. Returning normally
- T 4. Dull, boring, patrol -- nothing's happened for a while
- T 5. Alert but routine escort/rendezvous duty, or patrol after encountering enemy -- the current music works for this
- T 6. Grim defense mission, or escort mission after engaging the enemy
- T 7. Tense, hopeless goal-line stand, defending the Tiger's Claw or something equally vital
- T 8. Brisk, upbeat strike mission -- go get 'em!

Though changes of mood are possible, it's unlikely that things will change very quickly in the flying sequences (as opposed to dogfights, where the action -- and the music -- will inevitably change rapidly), so we can take the time to make sure one tune segues smoothly into the next. We might have a set of specific transition pieces -- dull patrol to alert patrol, alert patrol to grim defense, transitions into and out of various bits of the dogfight theme, etc.

#### EJECTION SEQUENCE

The situation is hopeless. The player's ship is shot to pieces. It's time to get out.

We've got an animated ejection sequence (complete with sound effects) in which the player rockets through the roof of his ship and tumbles freely through outer space (as seen from inside the pilot's helmet).

Start with some explosive music and change abruptly to a quiet, peaceful, vastness of space tune.

- 1. Imminent rescue -- the player's allies are doing well (despite his personal lack of success) so the pilot will live to fight another day. Something expressing the awe-inspiring aspects of space, but upbeat (gee, the lights, the colors...)
- 2. Lost in space -- the player's side is losing/has lost. The chances of a rescue are slim. Floating in space music should be somber.

#### DEBRIEFING

1 piece

- 1. Successful mission -- Upbeat music. Lots of brass.
- 2. Unsuccessful mission -- Downbeat music. Lots of strings. Maybe a harsh quality to reflect the chewing out the player's going to get from his commander.



### MEDAL CEREMONY

After a certain number of successful missions, the player will be decorated. There are 4 medals plus assorted ribbons. Need five tunes, all solid military themes with minor variations:

2 pieces

1. General
2. Purple heart -- a bit more somber than the general theme
3. Minor bravery
4. Major bravery
5. Victory -- this should be one heck of a big deal. Loud, brassy, rising in pitch throughout...

### DEATH SCENE

Fade in from silence. Very somber. Segues into the funeral scene (in fact, could be one continuous piece).

### FUNERAL

Somber, muted, sad. Perhaps the main theme slowed down and played in a minor key. (Taps plays in part).

### COMMANDER'S OFFICE VISIT

Quiet, respectful, uncertain what's coming -- good news? bad news? A variation on the briefing room music, perhaps.

### BARRACKS

Restful, relaxing, a respite from the sturm und drang of the rest of the game.



## Wing Commander - Secret Missions

### INTERVIEW BY SERIES

<u>S.#</u>	<u>SYSTEM NAME</u>	<u>DESCRIPTION</u>
1	Goddard	<p>The Goddard colony has sent a distress call. Now off the air. Tiger's Claw diverted to go and assist and rescue efforts.</p> <p>M0 - Escort: Must escort &amp; defend relief ships that are heading to the Goddard colony.</p> <p>M1 - Strike: As the Claw approaches, wings are scrambled to remove any remaining Kilrathi presence from the system. Basically, a Search and Destroy.</p>
2	Border Zone	<p>The destruction of Goddard was caused by a mystery weapon. The Confed. High Command can't let this go unpunished. The Claw will head into Kilrathi space to find and destroy the new weapon.</p> <p>M0 - Patrol: No accurate star maps mean no knowledge of jump points. Patrol is to scout a potential jump point into the Border Zone.</p> <p>M1 - Escort: A Drayman loaded with Imperial Marines destined for a "Secret Mission" are to be escorted to nav 2, where they jump out.</p>
3	Midgard	<p>As the Tiger's Claw heads further into Kilrathi space, stealth is paramount. Unfortunately, fate has plans to keep the good guys busy as they pursue the Kilrathi fleet.</p> <p>M0 - Strike: A captured data ship is being taken to the fleet. It must be destroyed before the Kilrathi use our own information against us.</p> <p>M1 - Escort: The Marines have taken possession of a captured Dralhti fighter from the fleet, it is sure to be quite a prize...if you can bring it in.</p>
4	Jotunheim	<p>Now the Kilrathi know they are being pursued, but not by what. They will try to engage and find out what's going on. We will try to harass them and prevent us from being stopped.</p> <p>M0 - Escort: The Reavers return with more info. Bring 'em home alive.</p> <p>M1 - Strike: Get the jump on a Kilrathi force that is trying to get the jump on the Tiger's Claw.</p>
5	Bifrost	<p>Deep in Kilrathi space, the analysis of data shows that the Kilrathi ship needs a lot of supply. As we close in on the fleet, we try to determine where they are going and get there first. Once we know about the supply depot, destroy it.</p> <p>M0 - Patrol: Go hunt for the Sivar. Maybe get to engage it...maybe.</p> <p>M1 - Strike: Go and blow up the supply depot, so it can't be used.</p>



6

### **Asgard**

We're in a good position. We'll wait to engage the Sivar as it's weakened. Once we realize that it's not actually coming here. We'll next make sure that no tankers survive to refuel it.

M0 - Strike: Hit the Nav points and take out ships while the Claw awaits the big boy at the site of the former station.

M1 - Patrol: Find and destroy all Kilrathi tankers in the area. Be wary of a trap!

7

### **Vigrid**

With all of it's resources gone, the Sivar has no recourse but to engage the Claw. We're sure to get assaulted heavy, then it's up to us to blow the Sivar to bits.

M0 - Defend: The most able fighters of the Kilrathi fleet attack the Claw in a desperate attempt to destroy her.

M1 - Strike: Now it's our turn. Go and destroy the Sivar.

8

### **Retreat**

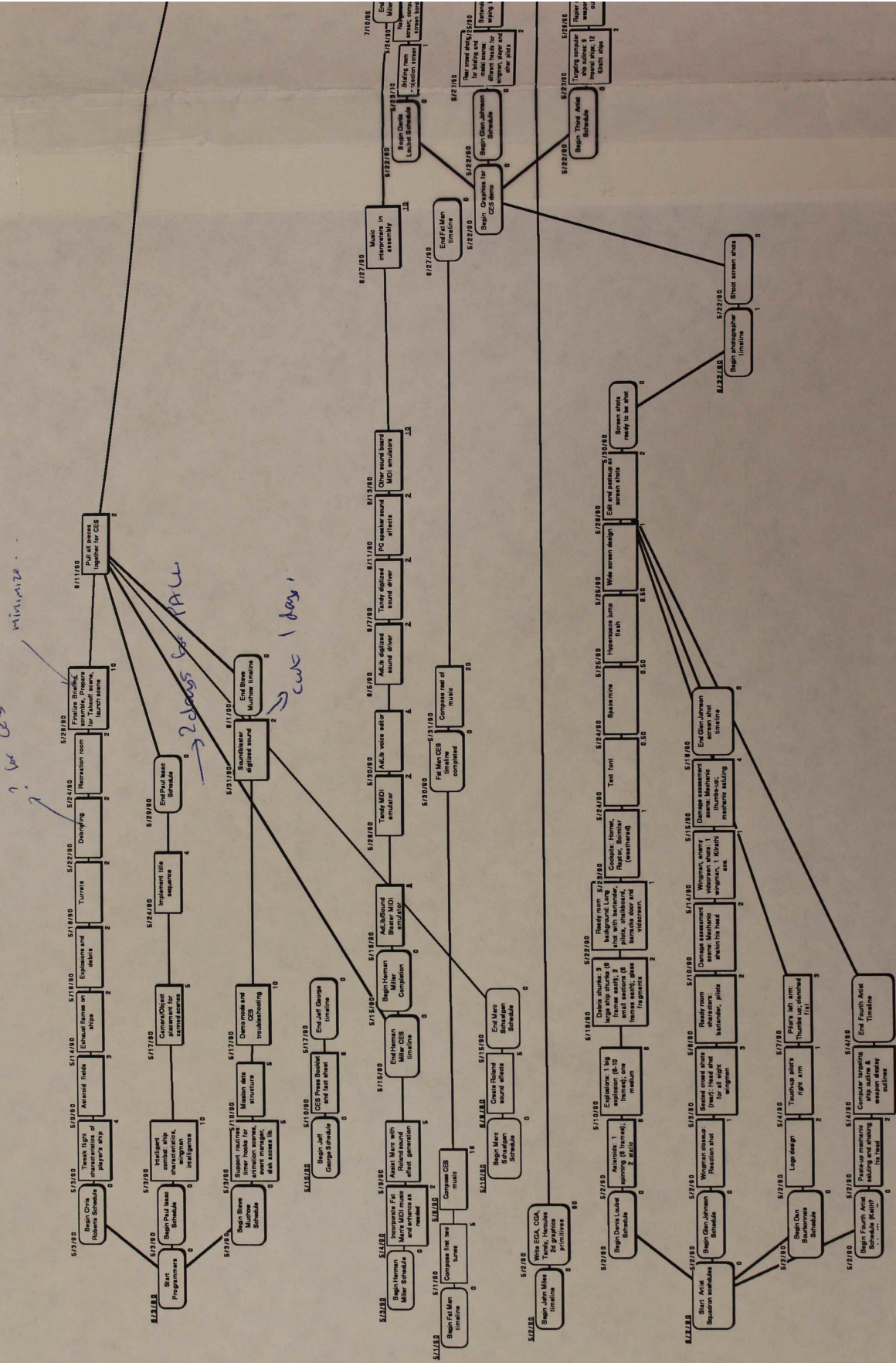
This series is only seen if critical objectives are not accomplished from series to series. In this case, the Claw makes a fighting withdrawal to the border and then back home.

M0 - Patrol: Go and clear a path for the Claw to use for it's retreat.

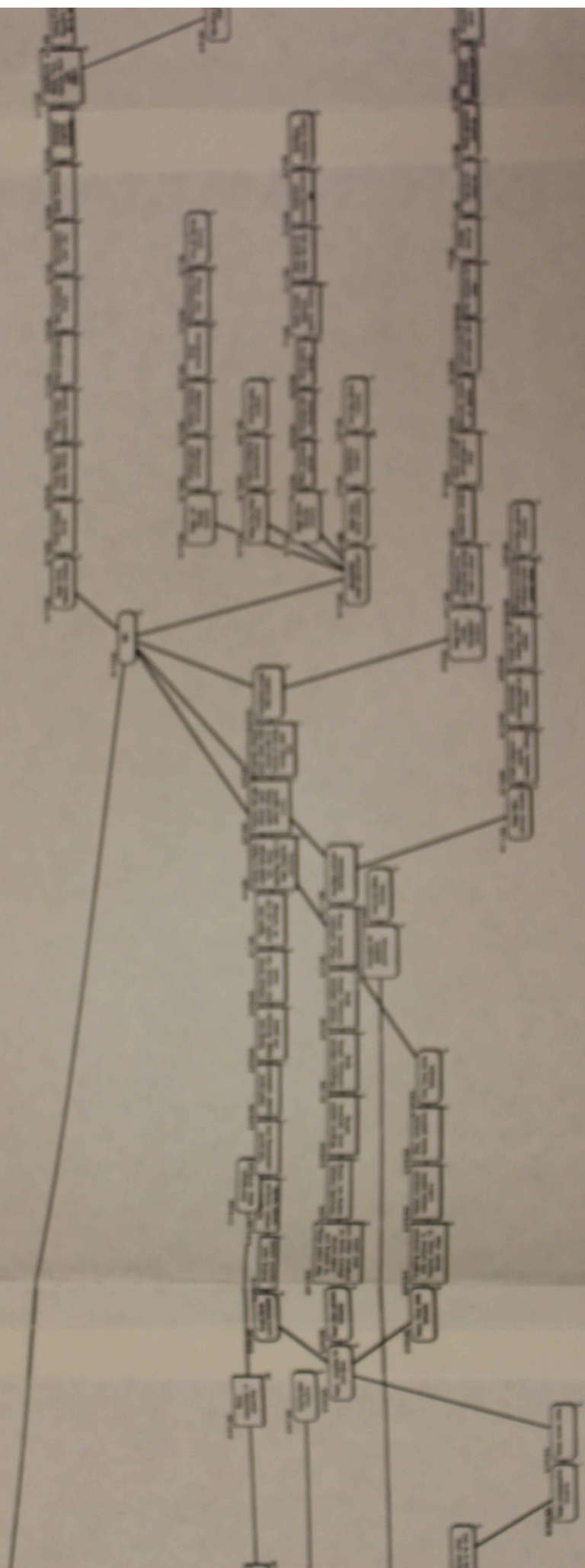
M1 - Defend: Buy us time to make the jump preparations as Kilrathi fighters swarm to repel the invaders.



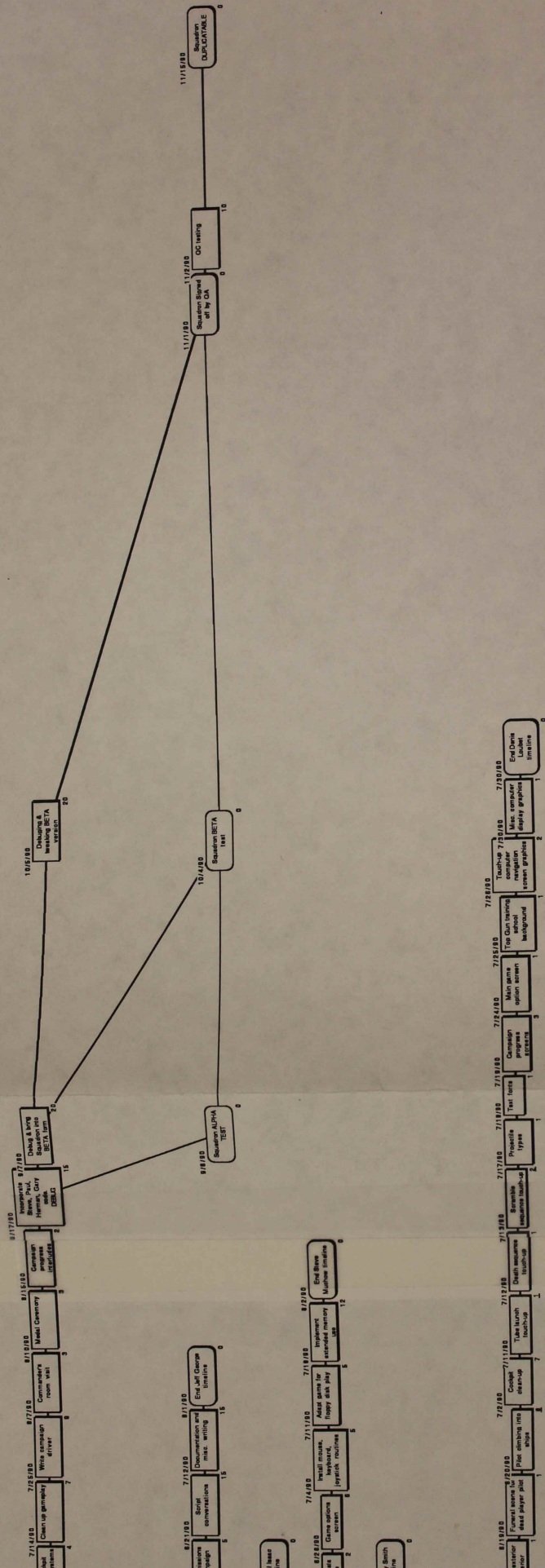
SQUADRON  
5/2/90













Squadron Tasks  
As of 4/1/1990

I. GRAPHICS

- A. Logo design - 2 days

II. WRITING

- Jeff
- A. Finalize game terminology - 1 day  
B. Outline missions/campaign - 5 days  
1. Training missions  
2. Front line campaign  
a. Finalize animation sequence storyboards - which reaction shots needed etc.  
C. Script conversations - 15 days  
1. Player's wingmen  
2. Kilrathi aces  
3. Commander

III. PROGRAMMING

Key: \* dependant on graphics from art department.  
@ dependant on Mission Graphics  
# dependant on Jeff George's mission design and writing.

- ✓ C A. Clean up integer math. 3 days.
- C B. 3space features  
C+P 1. Implement turrets on capital ships. 2 days. @  
2. Canned scenes. 5 days.  
a. The ability to place objects in space and choreograph the camera's and their movements.
- C C. Hook in ship types  
C - 1. Compile all ship shapes. 1 day. @  
C - 2. Input data for types. 1 day.  
P - 3. Add new class - Capital ship. 3 days.  
a. New intelligence (so cruisers don't zip around like fighters).
- D. Finish mission driver. - 29 days
- C 1. 3space establishing shot of "Tiger's Claw" and escorts. 1 day.  
a. An Imperial fighter screams from the foreground to the "Tiger's Claw" (establishing the size of the carrier).



- ✓ 2. Implement briefing. 2 days. \* #
- a. Cut to long shot from behind the pilots (seated), looking towards a large projection screen with the commander standing next to it.
  - b. Cut to close up of commander talking.
  - c. Cut to response shot of pilot (varies depending on the mission).
  - d. Cut to medium shot of commander, with the projection screen to his side.
    - (1) Pan shot to the left, so that the screen becomes the central point of the focus, and the commander moves off to the side of the screen
    - (2) Display mission details on the projection screen.
  - e. Cut back to long shot (from behind pilots).
    - (1) Commander motions "Go get them!"
    - (2) Pilots stand up.
      - (a) Pilots wave fists in the air (dependant on mission, i.e. if the mission is a major tactical strike the pilot's are obviously pumped up!)

- ✓ 3. Hook in scramble sequence. 1 day.
- a. Cut to top view of pilots running down corridor.
  - b. Cut to "foot" shot of same pilots.
  - c. Cut back to top view.

- ✓ 4. Implement "prepare for take-off sequence". 2 days. \*
- a. Cut to side-on close up of player's ship in the hanger bay. Pilot is shown to be in the cockpit.
    - (1) Ship depends on one flown.
  - b. Pilot places helmet on his head and adjusts his straps, while mechanics fiddle with his ship.
  - c. Mechanic salutes the player.
  - d. Canopy slides/swings into place.

- ✓ 5. Launch sequence. 2 day. \*
- a. Cut to back shot of ship waiting to shoot down tube.
  - b. Cut to out of the cockpit view the launch tube walls flying past.
  - c. Cut to 3space view tracking player's ship and wingman leaving the carriers launch tubes
  - d. Cut to the out of the cockpit view.
  - e. Return control to player.

- ✓ 6. Finish navigation computer. 1 day. \*
- a. Cut to close up of computer screen.
  - b. Sector map flashes on screen.
    - (1) Kilrathi, Imperial and navigation points shown on map.
    - (2) The selected item is circled and a line leads to the print out (displayed to the right of the sector map).
    - (3) On exit from this target selection mode the



info of the selected navigation target is displayed on the right computer VDU, while the homing dot is displayed on the combat scanner.

7. Mission objectives checked/achieved. 2 days.
- a. Mission objectives
    - (1) Destruction of target.
    - (2) Point reached.
    - (3) Ship reached.
    - (4) Ship survived to reach point.
    - (5) Ship didn't reach point.
  - b. Objectives defined by list of above types, -1 terminated
  - c. On mission/objective completion
    - (1) Wingman or commander flashes up a congratulatory message on the vid-com.

8. "Director" shots - 3Space computer controlled camera. 3 days.
- a. On destruction of enemy ace
  - b. On objective achievement.

9. Finish pilot animation. 3 days. \*
- a. Pilot's joystick movement mimics player's action.
  - b. Pilot's helmet movement represents the G-forces the pilot would be subjected to.
  - c. When the player looks left/right
    - (1) Cut to back shot, looking directly at the pilots face.
    - (2) The pilot turns his head left/right
    - (3) Cut to left/right cockpit view.

10. Finish cockpit visual damage. 2 days. \*
- a. Cockpit should become more beat up the more damage taken.
    - (1) Wires hang loose sparking.
    - (2) Displays should spark and die when hit.
    - (3) Metal struts are torn and twisted from explosions in cockpit when hit.

11. Player Death Sequence. 3 days. \*
- a. Cut to Cockpit Sparking and small explosion going off on dashboard.
  - b. Cut to Pilot trying to shield himself from explosion.
  - c. Cut to exterior (3d space shot) of players ship
    - (1) Ship spinning out of control.
    - (2) Ship explodes.
    - (3) Debris flies in all directions for the benefit of the lingering camera.
  - d. Cut shot of pilot's on the "Tiger's Claw" holding a "burial at sea" in honor of player.
    - (1) Long shot, pilots, silhouetted in foreground on



view deck. Stars flying by in background.  
Pilots launch coffin into space.

- e. If in campaign player gets to switch to another pilot (if any left). Essentially another life.
- f. Return to main option screen.

C 12.

Landing sequence. 2 days. \*

- a. Flash message "Auto docking procedure initiated"
- b. Cut to 3space tracking shot of player's ship flying up to carrier.
- c. Cut to 3space shot, behind the player's ship with the docking bay growing larger in the background.
- d. Cut to interior shot of the docking bay
  - (1) The player's ship growing larger
  - (2) Flies in front of a foreground object (support beam)
  - (3) Settles down to rest of the docking bay floor.

C 13.

Mechanic sequence. 3 days. \*

- a. Cut to side-on close up shot of ship (as in "prepare for take-off")
  - (1) Ship depends on actual ship flown.
- b. Damage player's ship has taken is represented by laser holes, burn marks drawn on top of the players ship shape.
- c. Canopy slides/swings open.
- d. Mechanic shakes his head and complains about the work he has to do.

C 14.

Debriefing sequence. 2 days. \* #

- a. Cut to same initial shot as briefing.
- b. Cut to medium shot of commander
  - (1) Pan shot left, to focus on projection screen.
  - (2) Projection screen summarizes the mission, to the narration of the commander.
    - (a) Cut to close ups of the commander to show his pleasure/displeasure with the players achievements.

E. 3Space special effects - 10 days

1. Add in new explosions. 2 days. \*

- a. Depending on size of explosion - pick different graphics.

10 2. Add in new debris chunks. 1 day. \*

- a. Depends on size of object destroyed.

3. Add in new space shard types. 1 day. \*

4. Clean up asteroid fields. 4 days. \*

5. Flames for engine exhausts (animated). 2 days. \*

E. Finish/clean up cockpit computer systems. 4 days.

- 1. Damage
- 2. Weapons
- 3. Targeting
- 4. Communication



2-7  
P-8

- G. Clean-up gameplay. 15 days.
1. Relative velocities.
    - a. Afterburner speed/disadvantages.
  2. Balance weapon damage.
  3. Wingmen fly intelligently.
    - a. Stick by your side.
    - b. Help you out, when in trouble.
    - c. carry out mission objectives.
  4. Challenging to fight kilrathi ships and survive.
  5. Intuitive and simple interface for ship computer operation.
    - a. Weapon selection
    - b. Communication
  6. The better the player, the better the opposition.

- H. Write campaign driver - 16 days
1. Recreation room menu screen.
    - a. Talking to Bartender (Bartender wiping the bar top). 2 days. \*
    - b. Talking to fellow pilots ( a group of fighter jocks sitting around a table sipping a brew and swapping tales). 3 days. \*
    - c. Looking at pilot campaign rankings (a pilot status blackboard). 3 days. \*
    - d. Watching Sat-News broadcasts (a hi-tech TV). 4 days. \*
    - e. Load/Save game (the Barracks door). 4 days. \*
      - (1) Menu & selection of with save game slot done against the backdrop of bunk beds.
      - (2) Create data structures for saving pilot records.
        - (a) Kills
        - (b) Rank
        - (c) Ship
        - (d) Current wingman

1-9  
5-7

Player doesn't  
Select wingman

2. Wingman selection. 4 days. \* #
  - a. When a wingman dies in combat.
  - b. When player moves up to a new class of ship.
3. Hook in wingman conversations. 7 days. #
  - a. Conversations could be different for each mission.
4. Visit to the Commanders room. 3 days. \* #
  - a. For mission and ship assignment.
  - b. For promotion.
5. Medal ceremony. 3 days. \*
  - a. Cut to briefing long shot.
    - (1) Pilots (seated) clap and cheer.
  - b. Player's character walks in from the right.
  - c. Cut to close up shot of commander facing the player's character
    - (1) Player's rank and flight group patch can be seen



on his upper arm.  
(2) The commander pins a medal on the player's chest.

d. Cut to long shot.

(1) Pilots stand and cheer.

CVS

6. Create and implement campaign data structure. 2 days. #  
a. Mission branching depending on previous mission outcomes.

C

7. Campaign progress interludes. 1-2 days. \* #  
a. Still bitmaps establishing the storyline.

JM

I. Write and install 2D graphic primitives for EGA, CGA, Tandy, Hercules. 60 days. John Miles

1. Different shape format for EGA, CGA (& Hercules) and Tandy for shapes to be scaled & rotated  
a. Based on horizontal lines of color, for speed.

HM

J. Sound. Herman Miller. 20 days.

1. Write and install music driver. 20 days.  
a. Ability to handle smooth changes between "scores" - which can change depending on the action.  
2. Write and install sfx driver. 15 days.  
a. Uses Roland Stereo effects for ships flying past player (the rumbling of a battle cruiser etc.)  
b. Digitized sounds if Tandy TL or sound board installed.

P+L

K. Implement title sequence

1. Uses 3space bitmaps. 4 days. \*  
a. A Kilrathi fighter screams into view and explodes.  
b. An Imperial fighter flies through the debris and "out of the screen".  
c. A second later two Kilrathi fighter come charging out of the screen in hot pursuit.  
d. The logo "Squadron" fades in from blackness.

S

L. Game options screen. 1 day. \*

1. Fly Training (Top Gun academy). 5 days. \*  
a. Background screen similar to rec room, but in training base.  
(1) Blackboard  
(a) Possible training missions  
(b) Player's pilot rating on missions next to other pilots.  
(2) Player receives call sign based on training missions e.g Dead-eye, maverick or cargo!  
(3) Commanders door  
(a) I'm ready to ship out.

2. Play campaign (drops you into campaign mode)



- 5  
5  
95.  
5
- M. Install mouse/keyboard/joystick routines. 5 days.
  - N. Adapt game for floppy disk play. 5 days.
  - O. Write and install installation program. 10 days. Gary.
  - P. Investigate Extended memory implementation. (for machines with 640k+). 15 days.
    - 1. To allow digitized speech.
    - 2. Minimal disk access. (No loading between animation scenes, or mission space action spheres).

#### IV. SOUND

- 30 days

- A. Compose soundtrack
  - 1. Title sequence
  - 2. Score "canned" sequences.
    - a. 3space establishing shot
    - b. Briefing.
    - c. Scramble.
    - d. Prepare for takeoff.
    - e. Launch.
    - f. Death.
    - g. Landing.
    - h. Mechanic assessing damage.
      - (1) Beat up bad
      - (2) In good shape
    - i. Debriefing.
    - j. Medal ceremony.
    - k. Commanders office.
      - (1) Promotion
      - (2) Ship assignment
    - l. Rec Room.
      - (1) Bartender
      - (2) Pilots
      - (3) Sat-News
  - 3. In-flight
    - a. On patrol
    - b. Kilrathi sighted
    - c. Heat of battle
      - (1) Just scored hit
      - (2) Wingman killed
      - (3) Under heavy fire
      - (4) Friendly ship destroyed
      - (5) Enemy ship destroyed
      - (6) Objective destroyed
    - d. Navigating asteroid field
    - e. Sighting of friendly ships
      - (1) Returning to carrier



- B. Create sound effects (MT32, digitized, AdLib, etc.)
- C. Digitize speech

V.TWEAKING & TESTING 2 mos.



## Herman's Squallor Music Sched

MIDI data translator (2 days) ✓

Music compiler (3 days) ✓

Music interpreter MC (2) ✓

Roland MT 32 driver (1) ✓

Sound Blaster digitized sounds (2-3?) ✓

Roland Voice editor (2) ✓

AdLib/Sound Blaster MIDI emulator (3-4) ✓

Tandy MIDI emulator (1) ✓

AdLib voice editor (2) ✓

AdLib digitized sound driver (1) ✓

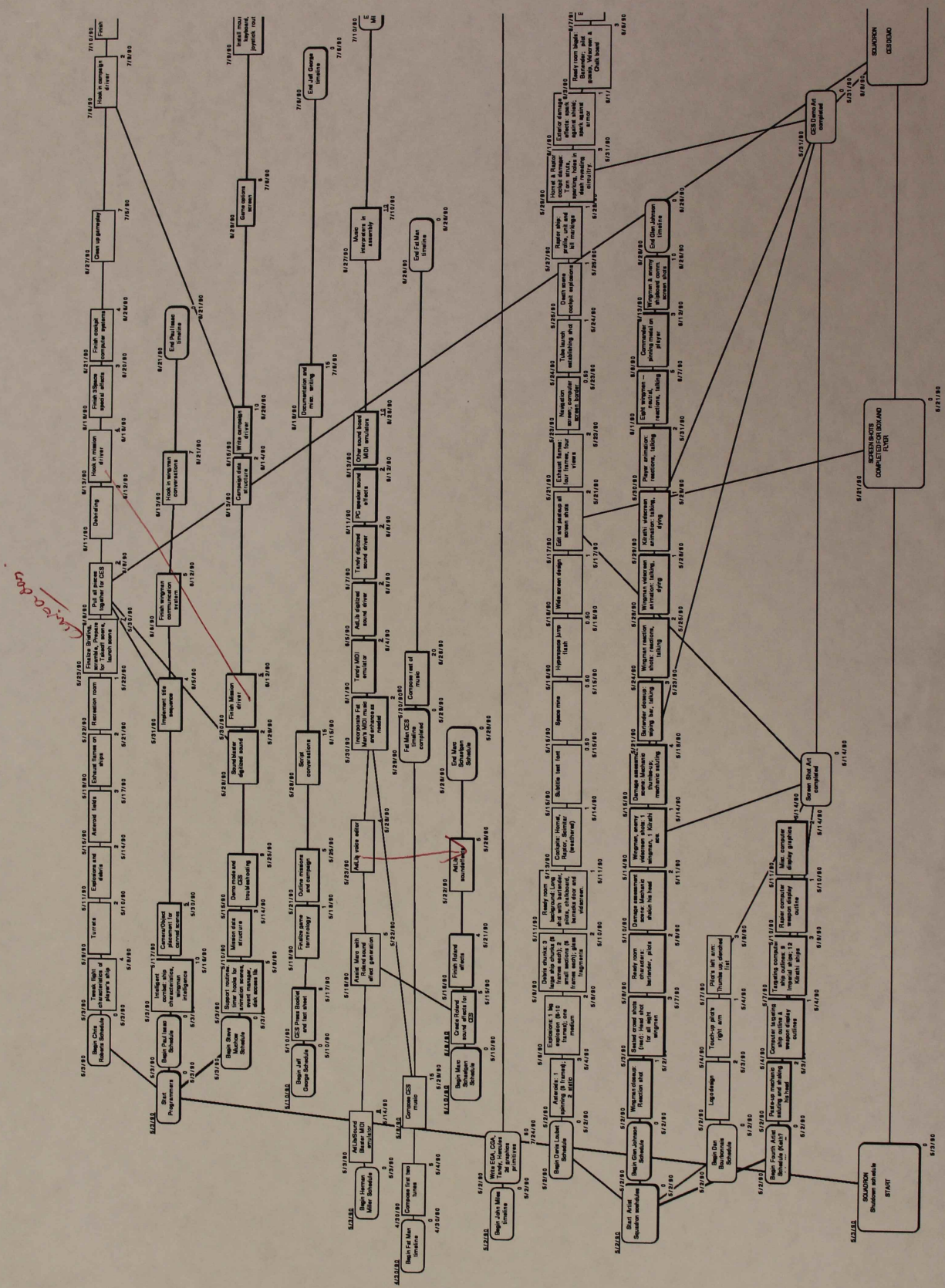
Tandy " " (1) ✓

PC speaker sound fx (?) ✓

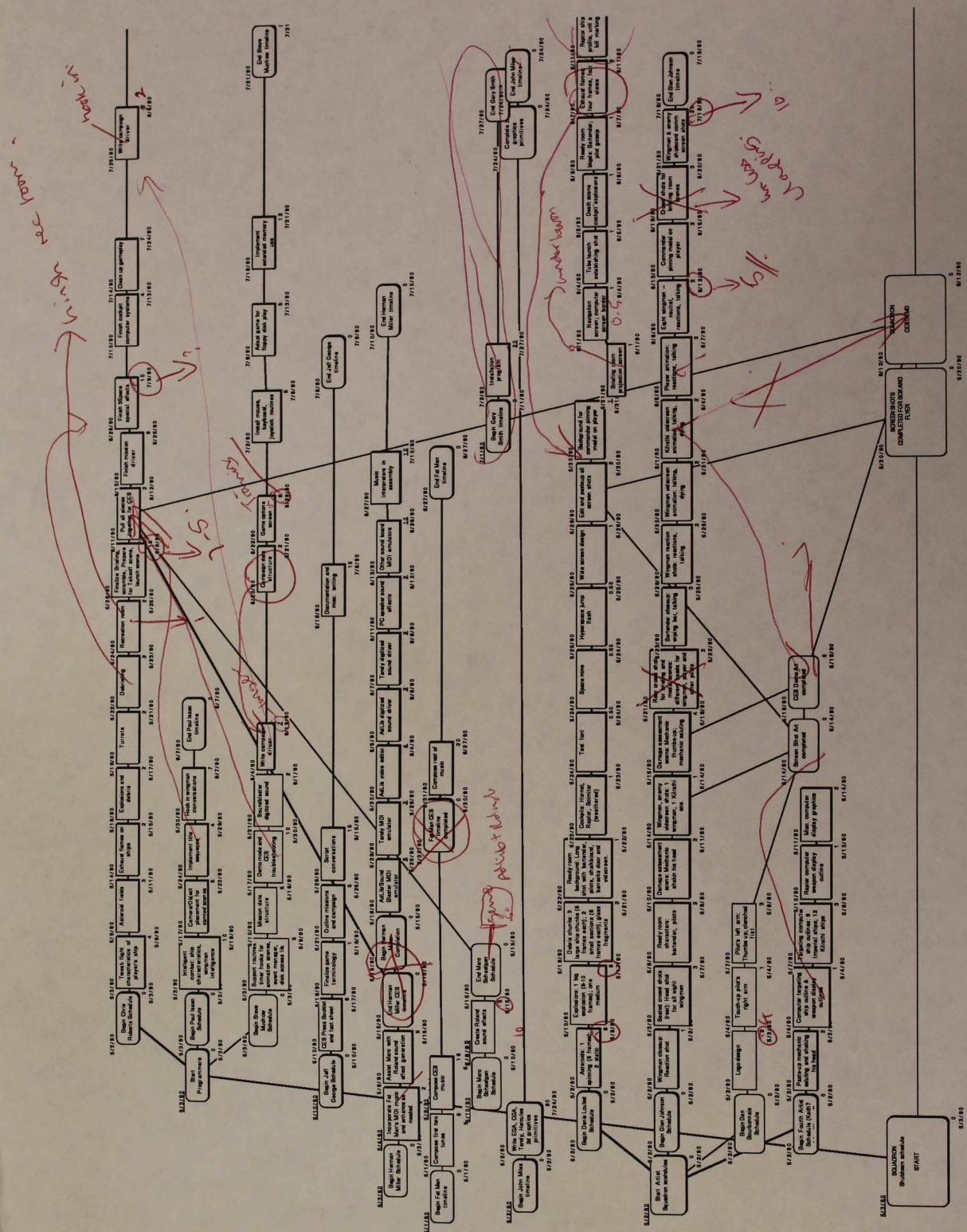
Music interp. into assembly (?) S ✓

Other MIDI drivers (?) S ✓

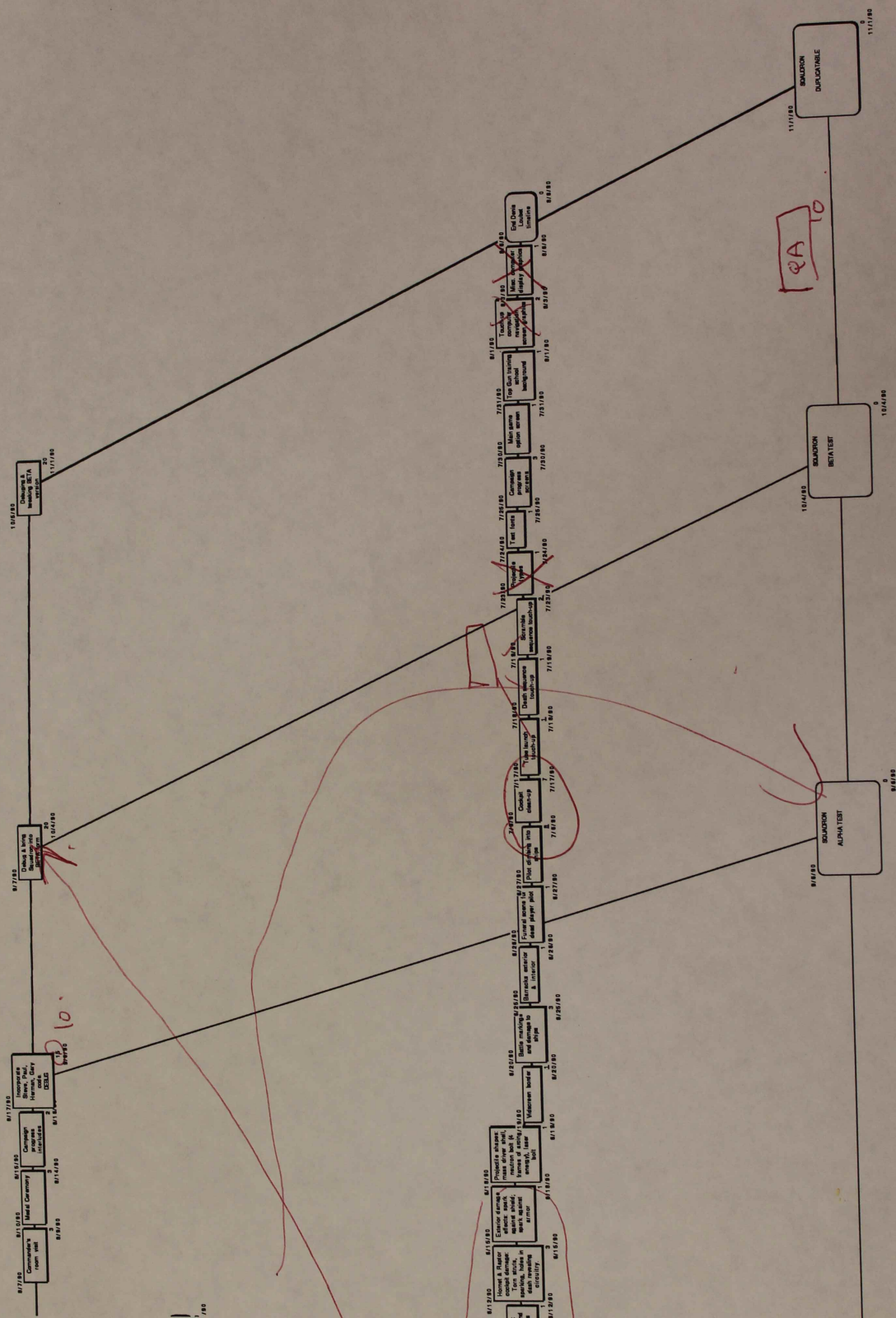




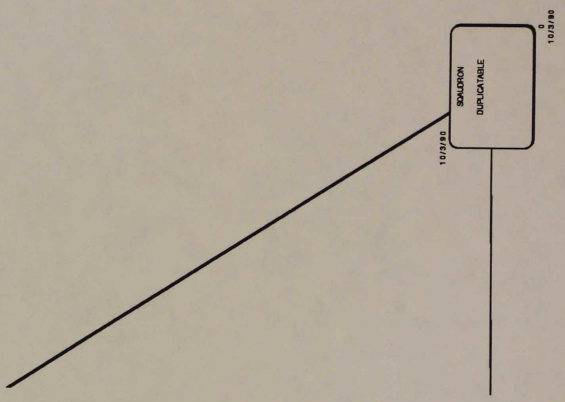




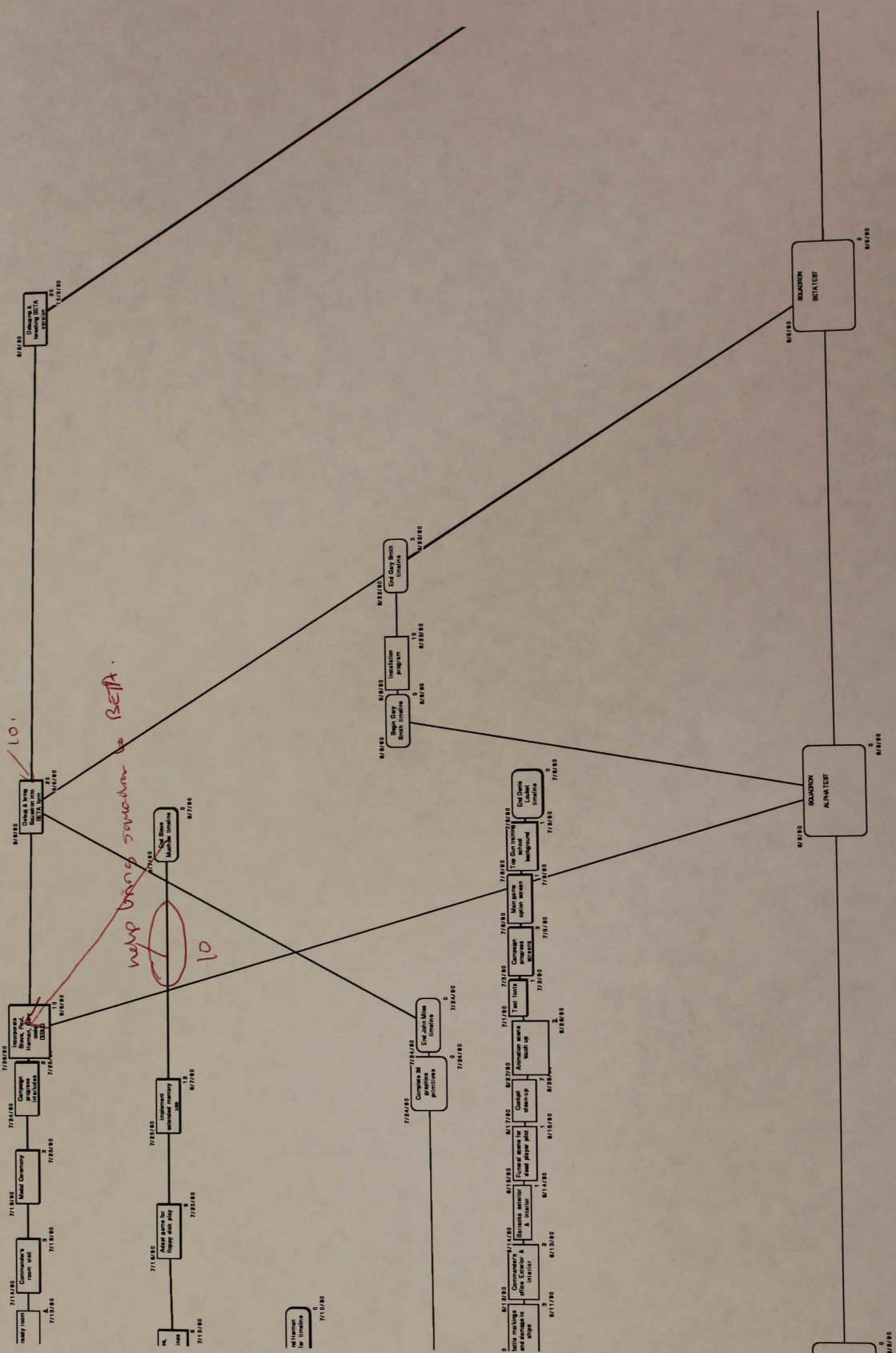














# WINGLEADER Name Options

1. Use "WINGLEADER" as a standalone word, as is.
  - A) Under license from Nova Game Designs.
    - 1) Issue: Can they even provide such rights without conflict from their assigned rights to Accolade on Wingleader master game system, "Ace Of Aces"?
    - 2) Issue: Or does Accolade also need to be involved in this process to either:
      - a) Sublicense their rights under "Ace Of Aces"?, or
      - b) Acknowledge they have no rights to "Wingleader" under their "Ace Of Aces" rights?
    - 3) This whole tact could prove costly, complicated and require more time than we have to resolve this issue. If we did obtain any rights from them, we would want rights to freely use the name for our type of product in all possible current and future applications: all electronic games, books, comics, movies, videotapes, miniatures, toys, etc.
  - B) Use it *without* Nova's involvement and build our legal defense accordingly.
    - Rights claimed are *limited* to our logotype and usage to describe a futuristic space combat game, story, characters, etc. Further disclaimer with: "No claim is made to the exclusive right to use "Wingleader", apart from the mark as shown and application described."
    - Nova has not formally filed to protect the name exclusively (or at all). They do not even use "tm"'s on the name on their own product packaging (although it is used on some documentation within the box).
    - Nova's product refers to a board game module of their "Ace Of Aces" series; ours refers to a standalone computer software game... different product categories entirely. Origin has no intention of doing a "Wingleader" board game based on our product. Nova has no known "Wingleader" computer game. Cannot really protect what uses someone "might like" to see evolve one day.
2. Modify the name *slightly*: lead off with, and include, the word "Wingleader", but with the addition of a word or two (or other suffix) to change it just enough to differentiate from Nova's use of the word.
  - Examples: "Wingleader Space Combat", "Wingleader Fighter", "Wingleader 2700", "Wingleader One", "Wingleader Force", "The Wingleader Attack", etc.
3. Modify the name *significantly*: maintain *either* the partial word "Wing" *or* "Leader", but not both. Substitute appropriately for the portion removed. (NOTE: It would be preferable to retain and build off of the word "Wing" just because that is what the original title started with and therefore maintains that initial consistency in catalogs, etc. where it may already be entered.)
4. Change the name entirely:
  - Still has a long time attached to choose and clear a substitute name.
  - Costly: will immediately eat about \$10K is printed materials already bearing the name Wingleader. Will take about 3-4 weeks to replace. Will greatly throw off schedule the release of tent card/demo disk promotion, September ads, manufacturing of packaging, October "Video Games & Computer Entertainment" cover, etc.
  - Many things cannot be stopped at this point: massive international PR arising out the Chicago CES Show introduction and actively fueled over the past 30 days, sales channel publicity, etc.



WINGLEADER Friday Goal List  
6/18/90

Herman

1. Finish AdLib and Roland sound effect drivers in library form
2. Install Marc's AdLib sound effects
3. Expanded memory manager (higher level C interface routines)
4. Make sound driver play music in expanded memory
5. PC speaker sound

Marc

1. Finish AdLib sound effects and get them to Herman
2. Create final Roland sound effects (for funeral, ejection, etc.)
3. Insert break points in music so tunes will flow and loop

John

1. Finish ship targeting display
2. Position exhaust flames
3. Create illos for PC ship weapon display

Jeff G.

1. Medal ceremony text
2. Sample commander's room visit text
3. Enemy & wingman personality profiles
4. Begin planning campaign progress screens

Steve M.

1. Tweak mission maker
2. Incorporate VGA TMDraw
3. Slot in EGA TMDraw
4. Assist Chris in completion of animation sequences



5. Text for animated sequences banked in from disk
6. Change files over to packet system

Glen

1. Spinning pilot after ejection
2. Pilots clapping in briefing room
3. Clean up smoking wingman's eyes
4. PC's left hand (thumbs up, etc.)
5. Help Denis, as necessary

Paul

1. Maneuver scripts
2. Target selection
3. Event timers

Steve B.

1. Regular & personality maneuver selection

Denis

1. View through faceplate
2. Side view: Raptor, Scimitar, Rapier inc. damage, kill markings
3. Campaign progress screens
4. Add video game to rec room
5. Game options screen

Chris

1. Finish animation sequences and intelligence required so game can cut to the right one



PROJ NAME: SQUADRON - IBM

PROJ CODE: SQIB

AUTHOR: Chris Roberts

DATE  
RANGE

☐ All

FROM

TO

9/1/89

9/30/89

ARTIST	BILLABLE TIME	NON-BILL TIME	TOTAL HOURS	COST
Keith Berdak	89.83	0.35	90.18	1437.28
Daniel Bourbonnais	0	0	0	0
Jeff Dee	0	0	0	0
Amanda Dee	0	0	0	0
Glen Johnson	29.66	2.28	31.94	474.56
Denis Loubet	17.01	0.45	17.46	272.16
Clear	Go!	136.5	3.08	139.58
				2184



PROJ NAME: SQUADRON - IBM

PROJ CODE: SQIB

AUTHOR: Chris Roberts

DATE  
RANGE

☐ All

FROM

TO

10/1/89

10/31/89

ARTIST	BILLABLE TIME	NON-BILL TIME	TOTAL HOURS	COST
Keith Berdak	0	0	0	0
Daniel Bourbonnais	0	0	0	0
Jeff Dee	0	0	0	0
Amanda Dee	0	0	0	0
Glen Johnson	49.6	4.91	54.51	793.6
Denis Loubet	47.78	2.8	50.58	764.48
Clear	Go!	97.38	7.71	105.09
				1558.08



PROJ NAME: SQUADRON - IBM

PROJ CODE: SQIB

AUTHOR: Chris Roberts

DATE  
RANGE ☐ All

FROM

TO

11/1/89

11/30/89

ARTIST	BILLABLE TIME	NON-BILL TIME	TOTAL HOURS	COST
Keith Berdak	13.27	0.5	13.77	212.32
Daniel Bourbonnais	0	0	0	0
Jeff Dee	0	0	0	0
Amanda Dee	0	0	0	0
Glen Johnson	24.73	0.61	25.34	395.68
Denis Loubet	59.77	23.64	83.41	956.32
<input type="button" value="Clear"/>	<input type="button" value="Go!"/>	97.77	24.75	122.52
				1564.32



PROJ NAME: SQUADRON - IBM		PROJ CODE: SQIB	
AUTHOR: Chris Roberts	DATE RANGE <input type="checkbox"/> All	FROM 12/1/89	TO 12/31/89

ARTIST	BILLABLE TIME	NON-BILL TIME	TOTAL HOURS	COST	
Keith Berdak	58.43	1.79	60.22	934.88	
Daniel Bourbonnais	0	0	0	0	
Jeff Dee	0	0	0	0	
Amanda Dee	0	0	0	0	
Glen Johnson	78.05	5.95	84	1248.8	
Denis Loubet	43.3	9.67	52.97	692.8	
Clear	Go!	179.78	17.41	197.19	2876.48



# ADDENDUM TO SQUADRON CONTRACT

In lieu of the 220 artist hours Origin Systems offered to Author in month seven under the terms of paragraph 7(f) of the Squadron contract dated October 5, 1989, Origin Systems will pay Author \$3,600.00 as an advance against royalties in four payments described below

Origin will make an initial payment to Author of \$700.00 within two weeks of the date upon which all parties have signed this agreement. Subsequent payments will be made within two weeks of the completion of the following milestones:

- a) \$500.00 for the first group of nine objects in one size.
- b) \$700.00 for the second group of nine objects in one size.
- c) \$700.00 for the third group of nine objects in one size.
- d) \$1000.00 for completion of all objects rendered in two sizes.

Robert G. Gewart  
For ORIGIN SYSTEMS, INC.

Chris Ph.  
AUTHOR

President  
TITLE

1/11/90  
DATE

12/29/89.  
DATE



## PERSONAL SERVICES AGREEMENT

Agreement made as of the 2nd day of November, 1989 between Christopher Roberts, having an address at 405 Buckeye Trail, Austin, TX 78746 (hereinafter referred to as "CONTRACTOR") and Process Inc., having an address at 433 East Sixth Street, New York, NY 10009 (hereinafter referred to as the "AUTHOR").

### RECITALS

A. CONTRACTOR is engaged in the business of manufacturing consumer computer software. AUTHOR is engaged in the business of creating three dimensional object models and animation for computer software.

B. CONTRACTOR possesses certain rights to a microcomputer product presently entitled Squadron, authored by Christopher Roberts, hereinafter referred to as the Product.

C. CONTRACTOR hereby desires to engage AUTHOR'S services to create three dimensional object models and animation for the Product, hereinafter referred to as the WORK, as specified by CONTRACTOR and AUTHOR accepts.

NOW, THEREFORE, IN CONSIDERATION of the following mutual covenants and promises, the parties agree as follows:

### 1. GRANT CLAUSE

CONTRACTOR hereby grants to AUTHOR the right to create art for the Product.

### 2. DELIVERY AND ACCEPTANCE

2.1 AUTHOR shall deliver the WORK in Beta form to CONTRACTOR no later than December 31, 1989. "Beta" shall be defined as meaning the complete WORK, as if ready to ship, but without final approval.

The WORK shall consist of three dimensional computer models of 26 spaceship types. At least 37 views of each spaceship model will be generated, with each view to be rendered in two sizes (a minimum total of 1924 images).



The following items shall also be delivered with the WORK:

- a) Amiga disks containing copies of each three dimensional object file.
- b) Amiga disks containing the rendered spaceship images.

2.2 If AUTHOR fails to deliver the WORK or any deliverable item in conformance with the specifications herein by the specified delivery date, CONTRACTOR may withhold the applicable compensation payments and shall have the further option either (a) to terminate this Agreement upon written notice to AUTHOR or (b) to supply, correct or complete the WORK and deduct an amount equal to CONTRACTOR's fully burdened costs thereof (including compensation payments, if any, paid to others) from any payments due AUTHOR under this Agreement.

2.3 CONTRACTOR shall have thirty (30) days after delivery of the WORK to determine whether, in CONTRACTOR's subjective judgement, the WORK is acceptable. If CONTRACTOR determines that the WORK is not acceptable, CONTRACTOR shall notify AUTHOR and give AUTHOR an additional thirty (30) days in which to make the WORK conform to CONTRACTOR's requirements and resubmit the WORK to CONTRACTOR. If AUTHOR fails to do so, then CONTRACTOR may reject the WORK and terminate this Agreement by giving AUTHOR written notice. If CONTRACTOR does not give AUTHOR written notice of any nonconformance within thirty (30) days after the initial delivery or any subsequent submission of the WORK, CONTRACTOR shall be deemed to have accepted the WORK.

### 3. COMPENSATION PAYMENTS

3.1 CONTRACTOR will pay AUTHOR a total of \$3600.00 compensation payment for the completion of CONTRACTOR accepted and approved Work, subject to the provisions and specifications contained herein. A payment of \$700.00 shall be made to AUTHOR within four (4) weeks of the date upon which all parties have signed this agreement. Subsequent payments will be made within four weeks of the completion of the milestones described below:

- a) \$500.00 for the first group of nine approved objects in one size.
- b) \$700.00 for the second group of nine approved objects in one size.
- c) \$700.00 for the third group of nine approved objects in one size.



- d) \$1000.00 for completion and approval of all objects rendered in two sizes.

3.2 All expenses incurred by AUTHOR for purposes of sending the WORK to CONTRACTOR, not to exceed \$100, shall be paid by CONTRACTOR. AUTHOR must provide CONTRACTOR with written proof of all such expenses.

#### 4. STATEMENT OF OWNERSHIP

4.1 The parties agree that the WORK shall be considered a "work made for hire" as that term is defined in the federal copyright statutes of the United States. If for any reason the WORK is deemed not to constitute a work made for hire AUTHOR hereby assigns all rights to the WORK to CONTRACTOR with the exceptions detailed below.

a) AUTHOR shall have right to use shapes rendered under the terms of this contract for museum and gallery shows and other "fine art" purposes so long as such use is not specifically for resale. Should AUTHOR sell fine art use of the WORK, however, he shall inform the buyer of CONTRACTOR's right of copyright and ownership.

b) AUTHOR shall have the right to use shapes rendered under the terms of this contract in demonstrations and promotions specifically designed to promote his work and/or services.

4.2 Any use of the WORK by AUTHOR shall be accompanied by a credit line reading as follows: "Spaceship designs used with permission of Chris Roberts and Origin Systems Inc."

4.3 CONTRACTOR represents and warrants that it has the full, exclusive and necessary right, title and interest in and to the Product, the right to enter into and perform this Agreement, and the right to grant the rights granted to AUTHOR herein.

4.4 Should CONTRACTOR re-use the shapes modeled and rendered by CONTRACTOR, or modified versions thereof, AUTHOR shall have right of first refusal to re-render and/or modify those shapes.

#### 5. WARRANTY OF AUTHOR

AUTHOR agrees to provide to CONTRACTOR and its personnel, reasonable consultation services in connection with the use, operation and modification



of all versions of the WORK specified herein during the one year period beginning on the date of this Agreement. In addition, AUTHOR will use his best efforts to correct as promptly as possible any errors in the WORK of which CONTRACTOR notifies AUTHOR in writing during such one year period.

## 6. TERMINATION

6.1 Either party may terminate this Agreement if the other party materially breaches any material provisions of this Agreement and fails to remedy the breach within sixty (60) days after the written notice thereof from the other party.

6.2 The rights and remedies provided in this paragraph shall not be exclusive and shall be in addition to any other rights and remedies provided by law.

6.3 In the event this Agreement is terminated by provision in Paragraph 6.1 of this Agreement, due to material breach by AUTHOR, AUTHOR must refund all compensation payments paid by CONTRACTOR.

## 7. GENERAL

7.1 Neither party shall be deemed in breach of this Agreement if such party's performance is prevented by a cause beyond its reasonable control, provided that it gives prompt notice to the other party and the time for such party's performance under the Agreement shall be extended by the period of time equal to the duration of the cause which prevented such performance.

7.2 Neither party shall be liable to the other for any incidental or consequential damages except for breach of the representations and warranties set forth in Paragraph 4 relating to STATEMENT OF OWNERSHIP.

7.3 Neither party shall assign this Agreement or any portion thereof to any third party without the prior written consent of the other, which shall not be unreasonably withheld, except that CONTRACTOR may assign this Agreement to any subsidiary or to any entity which acquires substantially all of the assets of CONTRACTOR. Any attempted assignment in violation of this Agreement shall be void.



7.4 Any notice required or permitted to be given under this Agreement shall be given in writing to the parties at their respective address as set forth at the beginning of this Agreement. Any such notice shall be deemed given when actually received or seven (7) days after mailing by certified or registered mail to the address set forth above or any new address of which the party has given notice as provided herein.

7.5 AUTHOR and CONTRACTOR are independent contractors and nothing in the Agreement is intended to create any form of partnership, joint venture or agency relationship.

7.6 This Agreement is entered into in the State of New Hampshire and shall be governed by the laws of the State of New Hampshire.

7.7 This Agreement constitutes the entire Agreement between the parties and supersedes all proposals, all written or oral communications between them prior to the execution of this Agreement, and may be modified only by a writing signed by both parties after the execution of this Agreement.

7.8 AUTHOR and CONTRACTOR agree that this Agreement and the terms and conditions contained herein are confidential and shall not be disclosed to any third party except to a party's agents with a need to know who have agreed to maintain the terms and provisions of this Agreement in confidence or except as may be necessary to enforce the terms and provisions of this Agreement.

7.9 This Agreement shall not be binding upon CONTRACTOR until actually signed by CONTRACTOR.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth above.

AUTHOR  
By: Mary Bellis  
(Process Inc.)

Date: 11/18/89

CONTRACTOR  
By: Chris Roberts  
(Chrisopher Roberts)

Date: 11/16/89



## EXHIBIT C

Squadron

### COMPENSATION PAYMENTS RATES AND ADVANCE SCHEDULE

Subject to paragraph 6(a), OSI shall pay the Author the following percentages of Net Receipts actually received from the Work:

18% of Net Receipts.

For any Associated Products developed by the Author, the Author will receive the above compensation payments rate on sales after deducting the cost of goods sold.

For any Associated Products developed by Origin Systems, the author will receive 20% of the above compensation payments rate on sales after deducting the cost of goods sold.

For any Associated Products developed jointly by the Author and Origin Systems, the author will receive 50% of the above compensation payments rate on sales after deducting the cost of goods sold.

For any conversions of the Work developed and marketed by OSI, OSI shall pay the Author the following percentages of Net Receipts actually received from the conversions:

Commodore Amiga	9.0% of Net Receipts
Commodore 64/128	8.0% of Net Receipts
Apple // series	5.0% of Net Receipts
Apple Macintosh series	6.0% of Net Receipts
Atari ST	5.0% of Net Receipts

For any conversions or Associated Products of the Work licensed by OSI to a third party, OSI shall pay the Author the following percentages of Net Receipts actually received from the licensed conversions:

United States of America licensees	33%
Japanese licensees	33%
United Kingdom and European licensees	50%

The following compensation payment cash advances shall be paid to the Author upon OSI's approval of the completion of the milestones as described below:

Paid \$2,500 Upon signing of this Agreement

due \$2,000 ✓ Intelligence for enemy and friendly ships to attack, retreat, dodge, tail and generally act like real space pilots.

Needs only  
fire-humy

due \$6,000

Complete the Squadron 3D space system. Includes wrestling with the controls, weapon system (implemented), player's view (chase plane, etc.) and the 3D space system completed.

Need art  
and instruction  
code  
Interface not  
implemented.



# Squadron

Glen/Nission Design Starship	11/18/89	40 (?)
Glen/Nission Nisc. 3D Objects (missiles, etc.)	11/23/89	5
Denis Pseudo 3D objects	11/29/89	6
Denis Pilot animation	12/3/89	5
Denis Tail gunner helmet	12/5/89	1.5
Denis 4 cockpits (1 done)	12/21/89	16
Glen Animation sequences	1/8/90	19
Glen Pilot/officer faces	1/13/90	15
Denis Nisc. Graphics	1/18/90	5
Keith logo Ray trace ships	1/25/90	7
Denis Title Graphics		



Printed By : Warren Spector  
From : Warren Spector (1/5/90)  
TO : MICH BELLINGER, Dallas Office

Page : 1

CC:  
BCC:  
Priority : Normal

Date sent: 1/15/90

**OFFICE MEMO**

**Subject:**

Art time for Chris

**Time:** 10:11

**Date:** 1/5/90

Dallas --

Here's an update on Chris' art situation. First, what we are obligated to provide under the terms of his contracts:

	BB	SQ	Total
9/89	0	0	0
10/89	215	85	300
11/89	215	85	300
12/89	215	85	300
1/90	215	85	300
2/90	0	300	300
3/90	0	300	300
4/90	0	(220)	0

Here's what we've actually provided so far:

	BB	SQ	Total	Difference
9/89	160.23	136.5	296.73	+296.73
10/89	393.58	97.38	490.96	+190.96
11/89	416.90	205.58	622.48	+322.48
12/89	55.33	59.70	115.03	-184.97 *
1/90	--	--	--	--
2/90	--	--	--	--
3/90	--	--	--	--
4/90	--	--	--	--

\* Don't be TOO alarmed at the low numbers in December -- Michelle hasn't entered the second half of the month into the system yet. There's still cause for concern there (we do seem to be under), but no need to panic. Yet.

Overall, looks like we're giving Chris far more than his share of art time (assuming Michelle's numbers are accurate).

Warren



Dear Warren,

I did drathi over to match the colours with the other gold ships. Also I did drathi flipped, which means I flipped it over and rendered. Chris had said something about one side always looking overexposed so he can take images from both drathi and flipped drathi to see if it looks better.

We are free for the next two weeks so it would be great if we can get some more designs. Also we need funds for march so can you please send us the next payment as soon as possible.

Call me if you have any questions.

Sincerely yours  
May Bellis



Warren

Here's Drathi + Raptor + Venture.  
I'm not sure of Drathi  
spelling.

I'd like to re render  
Venture and change the turrett  
so it stands out more.

In using the globals, I don't  
think we get the maximum  
cropping possible. I'd like to  
fill up the picture as much  
as possible with the ships, so  
they are as big as possible with  
as much detail as possible. The  
centering moves along the  
path's progression, and the cropping  
is dictated by a few angles  
(32 in particular). I think if the  
global was smoothed out, or if  
the ship was manually centered  
for each angle. The ships could  
be moderately larger and show of



more detail.

~~These are~~ These makes nine  
models we've done so far  
and I have two more to  
render and send you tomorrow.

Sincerely yours

Mary Bellis



## Piecemeal work contract for John Miles

### Ham to Dpaint IBM 256 conversion program

Takes an ILBM Ham (Hold and Modify) Amiga picture file (on an IBM DOS disk) and converts it to an IBM 256 color DpaintIle file matching the possible 4096 colors in the HAM picture to a specified 256 color palette (defined in a 256 color DpaintIle picture file).

Format will be;

HamTo256.exe infile outfile palfile

The program also needs the ability to work from an response file so that multiple pictures will be converted from within a makefile/batchfile.

OSI will provide one Amiga hardware reference manual (containing HAM mode definition) and several example Amiga HAM pictures on an IBM DOS disk.

### Fast Triangle Draw

Draws a triangle specified by three co-ordinates [3](int x, int y) in a specified color, with clipping to the specified viewport in MCGA 256 color mode.

1. The triangle co-ordinate structure will be pointed to by a pointer passed to the triangle routine  
Draw\_Triangle(\*Triangle\_co-ordinates, color);
2. The specified viewport will be set up ahead of the triangle draw with a subsidiary routine.  
Set\_Triangle\_Viewport(\*Viewport);

### Shaded Triangle Draw

Preforms as **Draw\_Triangle**, but with the addition that each vertices has its own color value. The draw routine not only draws a triangle specified by the three co-ordinates it varies the color it is drawing the triangle's pixels with depending on the pixel's position relative to the three color vertices.

Format will be;

Draw\_Shaded\_Triangle(\*Triangle\_coordinates, colV1, colV2, colV3);



# SQUADRON Cost of Goods

\$59.95 retail

Target: \$4.90

Disks (7) 2.80

Docs (48pp.) .55

Box .45

Ref Card .10

Labels .09

Total 3.99

Game play info (how to fly your cruiser)  
Tactical info  
Enemy ship ID guide  
Know your ship

Box filler?

## Possible extras:

~~Miniatures (1 Human, 1 Kilrathi)?~~

→ Ship blueprints — 4 (human ships) Non-repro blue 11x17 or 1 big one

~~Star map with border of "highlights" from the Human/Kilrathi war~~

~~Recruiting poster (1 Human)~~

~~Kilrathi dictionary (a little copy protection...)~~

~~4-color comic by Jeff George & Glen Johnson~~

Copy protection. Each time you move up to a new ship type, commander quizzes you on capabilities of your new ship.  
→ Fold blue side out with legend showing.



WARREN,

here's a version of the Squadron tasks with dates & dependancies attached to the programming tasks. You're ~~even~~ ~~up to the~~ guess is as good as mine on writing & music composition. -this is a rough cut. I only suggested resources on obvious tasks (ega drivers, sound driver, installation) The rest of the programming tasks need to be divided up between me and (Steve or Paul). We also need to Prioritize the tasks, and come up with a matching art, writing and sound list.



Also squadron uses.

1) Sound support;

get Roland LA PCX 1.

digitizing? (boards, handy TL etc)

2) Cover; - Logo design.

Painting

screen shot - Denis to mock.

3) Interior pieces;

manual

blueprints

4) Ad concepts.

Any way See you in the  
morning (give me a call at  
10:30 a.m.)

- CHRIS

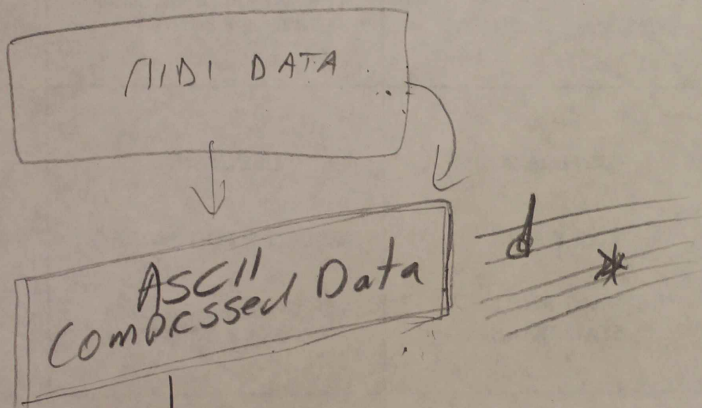
4:00 a.m.



mid: - Interpret → driver

Inter.

1 -  
2 -  
3 - LB  $\sqrt{\text{vol, pitch}}$



↓ tons  
Interpreter

↓  
midi expressions

→ ROLAND

↓  
Driver

ADLIB  
CMTBLASTER (cms)

THANDY  
Sound BLASTER (ADLib, cms)

XCOVOX  
XINOVATION

THANDY DTZ  
ADLIBX  
SOUND BLASTER



# LONG TERM PRODUCT DEVELOPMENT PLAN

	1990	1991	1992
SPRING	<b>BAD BLOOD</b>  <b>ULTIMA 6</b>	The Worlds of ULTIMA <b>TIME TRAVEL</b>  <b>SUPER HEROES</b> <i>[ULTIMA 5 NINTENDO]</i> <i>[ULTIMA GAMEBOY]</i>	The Worlds of ULTIMA <b>THE UNDERGROUND</b>  The Worlds of ULTIMA <b>ULTIMA (STUD)</b>  The Worlds of ULTIMA <b>ULTIMA 7 SPINOFF</b>
FALL	The Worlds of ULTIMA <b>DINOSAUR VALLEY</b>  <b>SQUADRON</b>	<b>ULTIMA 7</b>  <b>CAR WARS</b>  <i>[ULTIMA 6 NINTENDO]</i> <i>[STAR WARS]</i>	<b>ULTIMA 8</b>  <b>BLOOD &amp; FOG (STUD)</b>  The Worlds of ULTIMA <b>ULTIMA 7 SPINOFF</b>

- *NOTE: Italicized titles represent products developed by ORIGIN but published elsewhere*
- **BAD BLOOD**: Fantasy role playing (FRP) action game by Chris Roberts.
- **ULTIMA 6**: Epic Fantasy role playing game by Richard Garriott
- **DINOSAUR VALLEY**: First in THE WORLDS OF ULTIMA series. An FRP using the ULTIMA 6 s;
- **SQUADRON**: Space flight combat, action arcade game by Chris Roberts.
- **TIME TRAVEL**: An FRP using the ULTIMA 6 system.
- **SUPER HEROES**: FRP action game using the **BAD BLOOD** system from Chris Roberts.
- *ULTIMA 5 NINTENDO*: Cartridge version of **ULTIMA 5** to be published by Pony/FCI.
- *ULTIMA GAMEBOY*: Generic **ULTIMA** for the handheld **GAMEBOY** to be published by Pony/FI
- **ULTIMA 7**: Epic Fantasy role playing game by Richard Garriott.
- **CAR WARS**: Car combat arcade game by Chris Roberts using the **SQUADRON** technology.
- *ULTIMA 6 NINTENDO*: Cartridge version of **ULTIMA 6** to be published by Pony/FCI.
- *STAR WARS*: FRP by Richard Garriott using the **ULTIMA 6** system to be published by Lucasfil
- **THE UNDERGROUND**: 3D FRP set in the world of **ULTIMA**.
- **ULTIMA (STUD)**: First in the animated graphic adventure line.
- **ULTIMA 7 SPINOFF**: FRP based on the **ULTIMA 7** system.
- **ULTIMA 8**: Epic FRP by Richard Garriott.
- **BLOOD & FOG (STUD)**: Second in the animated graphic adventure line.
- **ULTIMA 7 SPINOFF**: FRP based on the **ULTIMA 7** system.



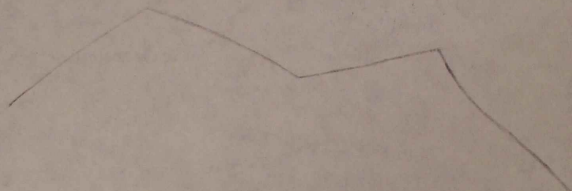
MIDI → ASCII

ASCII → token

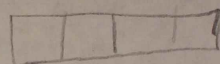
token → MIDI (Roland)

ROLAND DRIVER

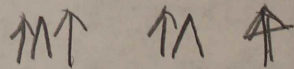
ROLAND VOICE EDITOR



on/off | pulse



SG ~~DR~~ on/off





Warren,

We've modeled all the ships

Now, could you send us the next  
seven hundred, it would help us.

Sincerely,  
Mary Bellis



Squadron Tasks  
As of 4/1/1990

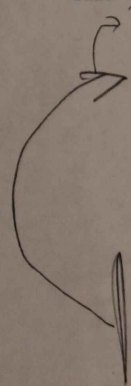
I. GRAPHICS

- A. Logo design

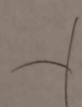
II. WRITING

- A. Finalize game terminology
- B. Outline missions/campaign
  - 1. Training missions
  - 2. Front line campaign
    - a. Finalize animation sequence storyboards - which reaction shots needed etc.
- C. Script conversations
  - 1. Player's wingmen
  - 2. Kilrathi aces
  - 3. Commander

III. PROGRAMMING

- 
- A. Clean up integer math.
  - B. 3space features
    - 1. Implement turrets on capital ships.
    - 2. Canned scenes
      - a. The ability to place objects in space and choreograph the camera's and their movements.
  - C. Hook in ship types
    - 1. Input data for types
    - 2. Add new class - Capital ship
      - a. New intelligence (so cruisers don't zip around like fighters).
  - D. Finish mission driver.

Low priority

- 
- 1. 3space establishing shot of "Tiger's Claw" and escorts.
    - a. An Imperial fighter screams from the foreground to the "Tiger's Claw" (establishing the size of the carrier).
  - 2. Implement briefing.
    - a. Cut to long shot from behind the pilots (seated), looking towards a large projection screen with the commander standing next to it.
    - b. Cut to close up of commander talking.
    - c. Cut to response shot of pilot (varies depending on



- looking towards a large projection screen with the commander standing next to it.
  - b. Cut to close up of commander talking.
  - c. Cut to response shot of pilot (varies depending on the mission).
  - d. Cut to medium shot of commander, with the projection screen to his side.
    - (1) Pan shot to the left, so that the screen becomes the central point of the focus, and the commander moves off to the side of the screen
    - (2) Display mission details on the projection screen.
  - e. Cut back to long shot (from behind pilots).
    - (1) Commander motions "Go get them!"
    - (2) Pilots stand up.
      - (a) Pilots wave fists in the air (dependant on mission, i.e. if the mission is a major tactical strike the pilot's are obviously pumped up!)
3. Hook in scramble sequence.
    - a. Cut to top view of pilots running down corridor.
    - b. Cut to "foot" shot of same pilots.
    - c. Cut back to top view.
  4. Implement "prepare for take-off sequence"
    - a. Cut to side-on close up of player's ship in the hanger bay. Pilot is shown to be in the cockpit.
      - (1) Ship depends on one flown.
    - b. Pilot places helmet on his head and adjusts his straps, while mechanics fiddle with his ship.
    - c. Mechanic salutes the player.
    - d. Canopy slides/ewings into place.
  5. Launch sequence.
    - a. Cut to back shot of ship waiting to shoot down tube.
    - b. Cut to out of the cockpit view the the launch tube walls flying past.
    - c. Cut to 3space view tracking player's ship and wingman leaving the carriers launch tubes
    - d. Cut to the out of the cockpit view.
    - e. Return control to player.
  6. Finish navigation computer.
    - a. Cut to close up of computer screen.
    - b. Sector map flashes on screen.
      - (1) Kilrathi, Imperial and navigation points shown on map.
      - (2) The selected item is circled and a line leads to the print out (displayed to the right of the sector map).
      - (3) On exit from this target selection mode the infro of the selected navigation target is displayed on the right computer VDU, while the homing dot is displayed on the combat scanner.
  7. Mission objectives checked/achieved.
    - a. Mission objectives



- (1) Destruction of target.
    - (2) Point reached.
    - (3) Ship reached.
    - (4) Ship survived to reach point.
    - (5) Ship didn't reach point.
  - b. Objectives defined by list of above types, -1 terminated
  - c. On mission/objective completion
    - (1) Wingman or commander flashes up a congratulatory message on the vid-com.
- 8. "Director" shots - 3Space computer controlled camera.
  - a. On destruction of enemy a.ce
  - b. On objective achievement.
- 9. Finish pilot animation.
  - a. Pilot's joystick movement mimics player's action.
  - b. Pilot's helmet movement represents the G-forces the pilot would be subjected to.
  - c. When the player looks left/right
    - (1) Cut to back shot, looking directly at the pilots face.
    - (2) The pilot turns his head left/right
    - (3) Cut to left/right cockpit view.
- 10. Finish cockpit visual damage.
  - a. Cockpit should become more beat up the more damage taken.
    - (1) Wires hang loose sparking.
    - (2) Displays should spark and die when hit.
    - (3) Metal stuts are torn and twisted from explosions in cockpit when hit.
- 11. Player Death Sequence.
  - a. Cut to Cockpit Sparking and small explosion going off on dashboard.
  - b. Cut to Pilot trying to shield himself from explosion.
  - c. Cut to exterior (3d space shot) of players ship
    - (1) Ship spinning out of control.
    - (2) Ship explodes.
    - (3) Debris flies in all directions for the benefit of the lingering camera.
  - d. Return to main option screen.
- 12. Landing sequence.
  - a. Flash message "Auto docking procedure initiated"
  - b. Cut to 3space tracking shot of player's ship flying up to carrier.
  - c. Cut to 3space shot, behind the player's ship with the docking bay growing larger in the background.
  - d. Cut to interior shot of the docking bay
    - (1) The player's ship growing larger



- (2) Flies in front of a foreground object (support beam)
  - (3) Settles down to rest of the docking bay floor.
- 13. Mechanic sequence.
  - a. Cut to side-on close up shot of ship (as in "prepare for take-off")
    - (1) Ship depends on actual ship flown.
  - b. Damage player's ship has taken is represented by laser holes, burn marks drawn on top of the players ship shape.
  - c. Canopy slides/swings open.
  - d. Mechanic shakes his head and complains about the work he has to do.
- 14. Debriefing sequence.
  - a. Cut to same initial shot as briefing.
  - b. Cut to medium shot of commander
    - (1) Pan shot left, to focus on projection screen.
    - (2) Projection screen summarises the mission, to the narration of the commander.
      - (a) Cut to close ups of the commander to show his pleasure/displeasure with the players achievements.
- E. 3Space special effects
  - 1. Add in new explosions.
    - a. Dependent on size of explosion - pick different graphics.
  - 2. Add in new debris chunks.
    - a. Depends on size of object destroyed.
- F. Finish/clean up cockpit computer systems.
  - 1. Damage
  - 2. Weapons
  - 3. Targeting
  - 4. Communication
- G. Clean-up gameplay
  - 1. Relative velocities.
    - a. Afterburner speed/disadvantages.
  - 2. Balance weapon damage.
  - 3. Wingmen fly intelligently.
    - a. Stick by your side.
    - b. Help you out, when in trouble.
    - c. carry out mission objectives.
  - 4. Challenging to fight kilrathi ships and survive.
  - 5. Intuitive and simple interface for ship computer operation.
    - a. Weapon selection
    - b. Communication
  - 6. The better the player, the better the opposition.
- H. Write campaign driver
  - 1. Recreation room menu screen.

327-13/3



- a. Talking to Bartender (Bartender wiping the bar top).
  - b. Talking to fellow pilots ( a group of fighter jocks sitting around a table sipping a brew and swapping tales).
  - c. Looking at pilot campaign rankings (a pilot status blackboard)
  - d. Watching Sat-News broadcasts (a hi-tech TV).
  - e. Load/Save game (the Barracks door)
    - (1) Menu & selection of with save game slot done against the backdrop of bunk beds.
    - (2) Create data structures for saving pilot records.
      - (a) Kills
      - (b) Rank
      - (c) Ship
      - (d) Current wingman
2. Wingman selection.
    - a. When a wingman dies in combat.
    - b. When player moves up to a new class of ship.
  3. Hook in wingman conversations.
    - a. Conversations could be different for each mission.
  4. Visit to the Commanders room.
    - a. For mission and ship assignment.
    - b. For promotion.
  5. Medal ceremony.
    - a. Cut to briefing long shot.
      - (1) Pilots (seated) clap and cheer.
    - b. Player's character walks in from the right.
    - c. Cut to close up shot of commander facing the player's character
      - (1) Player's rank and flight group patch can be seen on his upper arm.
      - (2) The commander pins a medal on the player's chest.
    - d. Cut to long shot.
      - (1) Pilots stand and cheer.
  6. Create and implement campaign data structure.
    - a. Mission branching depending on previous mission outcomes.
  7. Campaign progress interludes
    - a. Still bitmaps establishing the storyline.

I. Write and install 2D graphic primitives for EGA, CGA, Tandy, Hercules.

1. Different shape format for EGA, CGA (& Hercules) and Tandy for shapes to be scaled & rotated
  - a. Based on horizontal lines of color, for speed.

Do on Vid screen  
(Hd, above)

STALBASE

QUANT, RALPH

1, 10, 14, 19, 24, 28, 29



for shapes to be scaled & rotated  
a. Based on horizontal lines of color, for speed.

- J. Sound
  - 1. Write and install music driver
    - a. Ability to handle smooth changes between "scores" - which can change depending on the action.
  - 2. Write and install sfx driver.
    - a. Uses Roland Stereo effects for ships flying past player (the rumbling of a battle cruiser etc.)
    - b. Digitized sounds if Tandy TL or sound board installed.
- K. Implement title sequence
  - 1. Uses 3space bitmaps.
    - a. A Kilrathi fighter screams into view and explodes.
    - b. An Imperial fighter flies through the debris and "out of the screen".
    - c. A second later two Kilrathi fighter come charging out of the screen in hot pursuit.
    - d. The logo "Squadron" fades in from blackness.
- L. Game options screen.
  - 1. Fly Training (Top Gun academy)
    - a. Background screen similar to rec room, but in training base.
      - (1) Blackboard
        - (a) Possible training missions
        - (b) Player's pilot rating on missions next to other pilots.
      - (2) Player receives call sign based on training missions e.g Dead-eye, maverick or cargo!
      - (3) Commanders door
        - (a) I'm ready to ship out.
  - 2. Play campaign (drops you into campaign mode)
- M. Install mouse/keyboard/joystick routines
- N. Adapt game for floppy disk play
- O. Write and install installation program

#### IV.SOUND

- A. Compose soundtrack
  - 1. Title sequence
  - 2. Score "canned" sequences.
    - a. 3space establishing shot
    - b. Briefing.
    - c. Scramble.
    - d. Prepare for takeoff.



- b. Briefing.
- c. Scramble.
- d. Prepare for takeoff.

- e. Launch.
- f. Death.
- g. Landing.
- h. Mechanic assesing damage.
  - (1) Beat up bad
  - (2) In good shape
- i. Debriefing.
- j. Medal ceremony.
- k. Commanders office.
  - (1) Promotion
  - (2) Ship assignment
- l. Rec Room.
  - (1) Bartender
  - (2) Pilots
  - (3) Sat-News

3. In-flight

- a. On patrol
- b. Kilrathi sighted
- c. Heat of battle
  - (1) Just scored hit
  - (2) Wingman killed
  - (3) Under heavy fire
  - (4) Friendly ship destroyed
  - (5) Enemy ship destroyed
  - (6) Objective destroyed
- d. Navigating asteroid field
- e. Sighting of friendly ships
  - (1) Returning to carrier

- B. Create sound effects (MT32, digitized, AdLib, etc.)
- C. Digitize speech

V.TWEAKING & TESTING



Process Inc.  
Mission Graphics.  
433 East Sixth Street.  
NY, NY 10009

Tel 212-473-4752  
Tel 212-473-2443

Dear Chris,

Enclosed are the image files on one disk plus animations files and large image files on the other disk. I noticed in your letter that you transfer the images to 32 colours first before IBM format. I was wondering if you could transfer directly from ham to 256 MCGA for better colour and detail. Our price for the modeling of the twentysix objects for rendering (including the two test objects on disk) and all rendering required for this game would be 3,600. The first telephone number would be the fastest way to contact us. Thank-you, it has been a pleasure modeling for you.

Mary Bellis,  
Process Inc.  
Mission Graphics.

Name

Date

Mary Bellis





# NONDISCLOSURE AGREEMENT

I, the undersigned, do hereby agree to never demonstrate, duplicate, distribute, or generally make known in any way, ORIGIN SYSTEMS INC. (hereinafter referred to as OSI) proprietary information or material, which includes, but is not limited to, removing said proprietary information or material from OSI's place of doing business at 110 Wild Basin Road, Suite 230, Austin, TX 78746, without the express written consent of an official officer of OSI.

I, the undersigned, do hereby agree to bear all costs and damages incurred by OSI as a result of any breach of this agreement, and understand that said breach represents adequate and sufficient grounds for immediate termination of any and all relationships or agreements with OSI, contractual or otherwise.

Mr. J. R. Preece  
Name

Oct 6/89  
Date



Warren Spector  
ORIGIN Systems, Inc.  
110 Wild Basin Road, Suite 330  
Austin, TX 78746

May 24, 1990

Mary Bellis  
Mission Graphics  
433 East Sixth Street  
New York, NY 10009

Dear Mary,

The final payment for the space ship shapes you generated for Wingleader (we had to change the name from Squadron...) should be coming shortly. Chris and I have gone over the shapes and we're quite pleased with them. There may be some detail changes later, but your recent letter indicated that quick payment would be helpful so we're cutting you a check now. If any changes are required, they'll be minor, I assure you.

As I said on the phone last week, the shapes you generated were terrific -- better than we ever dared to expect. ORIGIN already has several other games on the drawing board which use the Wingleader 3D system and Chris and I hope all of you at Mission Graphics will want to contribute your unique talents to these future games. We'd love to work with you again.

We'll be in touch.

Sincerely,

Warren Spector



TO: Mary Bellis  
FROM: Warren Spector  
DATE: 5/23/90  
RE: Ship modifications

Here's a list of modifications we'd like to see made to the ship shapes you've generated for us. We spot-checked the ships rather than checking each view. That means comments relating to specific views MAY apply to others as well. Use your judgement, and if changes to the views we specifically mention require changes in other views, go ahead and make them.

If you have any questions or concerns, please call me or Chris.

1. EXETER: Wings are too thick in cross-section.
2. LUMBARI: The whites are too solid, particularly in views 1 and 37. Need more detailing on yellow engine pod. Make inside of exhaust nozzles black. Add more busywork on lower surface of large gray pods.
3. RALARI: Add busywork, detailing. As is, the ship looks small.
4. VENTURE: View 18 is incomprehensible -- the Venture needs more shape definition, if possible.
5. HORNET: Again, view 18 is lacking in visual interest. Add some insignia, if possible.
6. RAPIER: On view 10, the black and red insignia is too muddy. Sharpen up the image.
7. SIVAR: Too sketchy. Needs more detail, less solid color in all views. Add more stripes and insignia (like view 18). The problem is most apparent in bottom views.
8. TIGER: Too much white, especially in view 1. Too much gray in view 10.

The following ships are okay as is:

9. TANKER
10. SCIMITAR
11. GRATHA
12. RAPTOR
13. SNAKE



- 14. KRANT
- 15. DILGNT
- 16. FRALTHI
- 17. DART

Drayman

✓ Salthi

✓ Dralhti - view 36 in 10 min + detailing go away...

✓ Jalthi

✓ Spikeri

✓ Kilrathi base / Star base

util

place ob,

type ship name

< >

esc

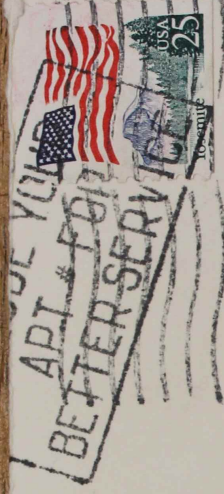
N

X



Mary Bellis  
Process Animation  
433 East 6th St  
Nyc Ny 10009

Warren thank you  
for your letter of the  
24th. Pleased to hear  
things are going so well.  
Can you refer to us as  
process animation in all  
credits ect. Since mission  
was the dealership that  
has moved from you send us  
I hope that you send us  
a cheque soon. But even if  
you don't stay in touch  
sincerely yours Mary



Warren Spector  
Origin Systems  
110 Wild Basin Rd  
Suite 230  
Austin Texas  
78746







"Wingleader One! Wingleader One! I've got a situation here. Bogies everywhere! Can't shake 'em!"

"Hold on, Hunter, I'm on my way!..."

You're a starship pilot. The best of the best. But nothing in your training prepared you for action this hot. With your trusted wingman at your side, you battle deadly Kilrathi aces in deepspace dogfights for the future of humanity. Prepare yourself for the most intense action you've ever experienced in computer entertainment!

- The caps*
- ~~ORIGIN's~~ *caps* Panaview(TM) 3-D technology uses highly-detailed, ray-traced, bit-mapped images to put you in the cockpit of a fast, heavily-armed, one-man space fighter. *caps*
  - The *caps* Soundtrax(TM) system senses what's happening on-screen and alters the pacing, tempo, and mood of the music to match! \*
  - An advanced artificial intelligence system makes your wingman a skilled pilot, but don't get cocky -- the enemy flies intelligently, too!
  - Animated sequences bring alive many aspects of life aboard a starfighter carrier.
  - Play for fun in video game mode or play for *keeps* real in the campaign game. *break into 2 or 3 shorter bullets* In campaign mode, the progress of the Human-Kilrathi war depends upon your actions -- you'll fly different missions each time you play. Earn commendations, more powerful starfighters (four different ships in all), and promotions. If you're good enough, you might end up as Wing Commander of the Terran Confederation! ]

Every image on this box was taken directly from the game:

What you see is what you play!

\* Roland MT-32/LAPC-1, AdLib, or SoundBlaster sound board required.



"Wingleader One! Wingleader One! I've got a situation here. Bogies everywhere! Can't shake 'em!"

"Hold on, Hunter, I'm on my way!..."

You're a starship pilot, the best of the best, but nothing in your training prepared you for action this hot. With your trusted wingman at your side, you battle deadly Kilrathi aces in deepspace dogfights for the future of humanity.

Wing Commander puts you in the cockpit of a fast, heavily-armed, one-man space fighter. You'll find yourself right in the middle of the most intense starship action you've ever experienced outside of a movie theater. But in Wing Commander, you're the star!

- Experience the highly-detailed, ray-traced, bit-mapped images of ORIGIN's cutting-edge Panaview(TM) 3-D technology.
- Thrill to the sounds of ORIGIN's Soundtrax(TM) system as it senses what's happening on-screen and alters the pacing, tempo, and mood of the music to match! \*
- Progress through the ranks of the Terran Confederation, moving up to ever more powerful ships -- four different ships in all!
- Fly alongside your trusted wingman, a skilled pilot in his own right, thanks to the advanced Wing Commander artificial intelligence system. But don't get cocky -- the enemy flies intelligently, too!
- Star in the Wing Commander cinematic experience. Animated sequences bring alive launching, docking, and other aspects of life aboard the starfighter carrier, CSS Tiger's Claw.
- Play for fun in video game mode or play for real in the campaign game. In campaign mode, the progress of the Human-Kilrathi war depends upon your actions. Fly different missions each time you play. Earn commendations and promotions -- if you're good enough, you might end up as Wing Commander of the Terran Confederation!

Every image you see on this box was taken directly from the game:

What you see is what you play!

\* Roland MT-32/LAPC-1, AdLib, or SoundBlaster sound board required.



RE: Problem with Wing Commander graphics adaptors.

Dear Warren,

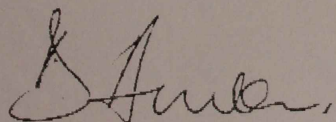
Firstly let me apologise for not getting back to you sooner. I came back from holiday last week and have since been trying to find the bottom of my 'Mail In' bin!

When I phoned up the distribution company to enquire further about the problem, they told me they couldn't remember such a problem and all their copies of Wing Commander were working fine. Very strange!

Since then, I have had another problem with a customer which I cannot seem to find a solution to. The customer has a MBC 386 SX running at 16 Mhz. The game runs fine if he does not use expanded memory, but when he does, he gets the effects but the game runs 4 times slower. Have you come across this? I would be very grateful if you could give me any advice.

Lastly, I was wondering if you could tell me a little more about the EMS graphics that are available when using the Soundblaster or Adlib Boards.

Regards



David Amor  
Technical Support



Warren Spector  
February 1990

# SQUADRON

## Animation Sequences

### I. THE BRIEFING

#### 1. Long shot -- Briefing Room.

Description: Military ambience. Chairs in orderly rows in foreground. Video screen on far wall, where blackboard might be today. Scene partially obscured by people seated in chairs.

Action: Seated figures in foreground, silhouette heads bobbing. Commander enters (in background) and begins talking, gesturing toward a video screen on wall beside him.

Text: Begin mission briefing.

#### 2. CU -- Commander.

Description: Head and shoulders shot of commander. Slightly below eye level looking up at the guy.

Action: Commander talking

Text: Continue mission briefing.

#### 3. CU -- Pilots.

Description: Tight head shots. Individual reaction shots of pilots as they hear the news their commander is giving them. Need several of these. Sometimes, we cut to one, sometimes to several, sometimes to none at all, to lend variety to the briefings.

Action: Pilots react differently to different missions. One fresh-faced recruit gasps in astonishment. A cocky guy looks smug. A veteran smiles knowingly. A kid who lied about his age to get in the service looks scared {OTHERS}. If pilots died in last mission, cut to empty chair, then to the saddened face of a friend. (Dead pilots no longer show up in reaction shots.)

Text: Briefing continues.

#### 4. Medium Shot -- Commander

Description: Waist-up of commander standing next to video screen.

Action: Screen casts interesting reflections on commander's face for a moment, then he moves out of frame (or camera pans to center the video screen). Video screen fills center portion of player's monitor, with black rectangles above and below. Screen displays mission details on 3D view from game. Rectangle above screen displays wireframe images of enemy ships and mission targets.

Text: In rectangle above screen, text give raw data about enemy ships pilots can expect to encounter and about targets. In rectangle below, mission



commander continues to explain mission, his words illustrating and expanding upon data/battle displays above.

5. Long Shot -- Briefing Room

Description: As in first shot.

Action: Video screen flickers off. Commander concludes his talk with a rousing "Go get 'em!" (or something) and a fist thrust in air.

Text: "Go get 'em!" or something.

6. CU -- Cutaways

Description: Close-ups of the commander and various pilots, a fist thrust in the air, a helmet held high, etc.

Action: See above.

Text: Cheers (if anything).

7. Long Shot -- Briefing Room

Description: The briefing room as described in shot 1.

Action: Silhouettes of pilots thrusting fists and helmets in the air, etc.

Text: Cheers (if anything).

NOTE: This is also the scene of medal ceremonies. If the player has performed well enough to earn a medal, add a shot between shots 1 and 2:

1a. Medium shot -- Commander & player pilot

Description: Waist up view of commander and pilot.

Action: Commander pins medal on player pilot's chest. Both character's salute.

Text: "For valor above and beyond..." or specific mission info -- "For achieving ace status in a single mission while preventing the destruction of a ship on a diplomatic mission..." or something.

Action: Sparks flying, wires burning, smoke curling. Wingman (if alive) appears on view screen to wing out.

Text: Wingman saying, "Get out of there! Bail out!" etc.

## II. SCRAMBLE

1. Long Shot -- Corridor

Description: Side view of a tube-like corridor with one wall cut away. Closed doors lead "away" from the camera. Signs on the wall {READABLE?}. Make the corridor look like something in a submarine or, if that's too cramped for the action, an aircraft carrier. Red warning lights flash on and off.

Action: Guys in silhouette (red, black, red, black, etc.) sprint down the corridor. Some are pulling helmets on?

Text: "Alert! Alert! Pilots to flight deck!" etc.

Text: None



### III. CLIMB IN SHIP

#### 1. Medium-long Shot -- Cockpit

Description: Camera positioned just far enough away from a ship to show the cockpit, the ladder leading up to it, and a waist-up view of a flight engineer (in silhouette) standing on the ground.

Action: A pilot clambers into the cockpit, adjusts his belts, pulls on helmet. The cockpit (one of those that slides into place, front to rear) closes. The flight engineer in the foreground gives a thumbs-up.

Text: "Bogies detected in quadrant 16," "All ships away in four-seven seconds. Repeat, 4-7," etc.

NOTE: There are two tricky bits to this shot. First, we need several versions of it, one for each ship type. Second, kill stickers on the side of the ship reflect the player's actual record.

### IV. TAKE-OFF

#### 1. POV shot -- Cockpit

Description: Cockpit view of tunnel.

Action: The player's ship rushes through the tunnel, Battlestar Galactica-style, emerging suddenly into the blackness of space (and beginning actual play). Commander's image flickers onto view screen in cockpit.

Text: Commander reiterates mission basics.

### V. DEATH SCENE

#### 1. POV shot -- Cockpit

Description: Cockpit view (one for each ship-type)

Action: Sparks flying, wires burning, smoke curling. Wingman (if alive) appears on view screen to urge player to bail out.

Text: Wingman saying, "Get out of there! Bail out!" etc.

#### 2. CU -- Pilot

Description: Pilot's face lit by explosion.

Action: Screaming {ANIMATED?}

Text: {AAAAAARGH!.....?}

#### 3. Long Shot -- Ship

Description: Exterior shot of ship exploding

Action: Big explosion

Text: None



NOTE: Wingmen dying get just shots 2 and 3 above.

## VI. LANDING

### 1. Extreme long shot -- Carrier

Description: Exterior view of carrier. A brightly lit, Star Wars-style docking bay (with bit-map interior) can be seen.

Action: The docking bay grows larger and larger as the player's ship gets closer.

Text: "Cleared to land, bay 8G, blue leader," (or something like that). Constant messages detailing appropriate speed, course, etc.

### 2. Long shot -- Landing bay

Description: 3/4 view from inside bay.

Action: Ship approaches from outside, enters docking bay, slows to a stop, and hovers for a moment. Landing gear extends and the ship settles gently on the metal surface of the bay.

Text: Continued high tech talk from the space traffic controllers.

### 3. CU -- Cockpit

Description: Camera positioned just far enough away from a ship to show the cockpit, the ladder leading up to it, and a waist-up view of a flight engineer (in silhouette) standing on the ground. A new scene would be nice, but we could just repeat Scene III, Shot I.

Action: Cockpit opening. Foreground mechanic commenting on damage, if any.

Text: "Nice mission, Major. The ship looks as good as she did when you left!" or "Whew! Looks like some long nights ahead for me -- she's chewed up bad!" or something

NOTE: There are three tricky bits to this shot. First, we need several versions of it, one for each ship type. Second, kill stickers on the side of the ship reflect the player's actual record. Third, the ship illo should reflect damage actually taken by the player during the game.

NOTE: Landing sequence is customized to match

- Type of ship
- Condition of ship (down to specific types/locations of damage)
- Type/condition of carrier/mother ship

## VII. DEBRIEFING



1. Long shot -- Briefing Room

Description: Commander at front of room by video screen.  
Action: Commander talking

Text: "Good job" or "Bad job" or "Next time, take out the fighters before making your run at the carrier" or something.

2. CU -- Reaction shots

Description: Pilots' faces, empty chairs.

Action: Reactions to summary of mission. Sadness, glee, cockiness, etc.  
(We can reuse the reaction shots from Scene 1, Shot 3.)

Text: Commander summarizing success or failure of mission.

VIII. READY ROOM

1. Long shot -- Ready room

Description: A large room, a little less military and severe than the Briefing Room but still, clearly, a military man's idea of a friendly place. There's a bar here, several tables, and a large video screen. Recruiting and cautionary posters line the walls, also pilot records. A door set in one wall leads to the pilot's barracks (a sign on the door indicates this).

Action: A bartender polishes the bar with a cloth. Three pilots sit at a table drinking. (The seat that would be closest to the player is missing, to leave room for the player when he approaches.) A bored engineer flips channels on the video screen.

Text: None. Just music.

NOTE: Each of the major elements in this room is "active." The player can click on the bar or bartender and cut to shot 2. He can click on the pilots or the table and cut to shot 3. He can click on the pilot records to see his record or that of potential wingmen. He can click on the barracks door to quit and/or save the game.

2. CU -- Bartender

Description: A friendly, broad-faced man in unkempt khaki uniform.

Action: He mops the bar with a cloth and smiles when the player approaches.

Text: "What'll it be, [player's rank]? Then, in response to a menu of questions, he continues with gossip about various pilots, rumors of upcoming missions, etc.

3. CU -- Pilot record

Description: Close up of framed pilot record -- missions flow, enemy kills, ships lost, medals awarded, etc.



Action: None

Text: None

#### 4. Medium shot -- Pilots

Description: Three pilots seated at a table.

Action: They're drinking (fruit juice, of course!), talking, eating snacks. They look up at the player as he approaches.

Text: "Hey, bud, nice shooting the other day!" or some sort of pilot banter. Then, in response to a menu of questions, one or the other of the pilots will respond with rumors about enemy aces, upcoming missions, tactics that work well against Kilrathi, etc.

#### 5. CU -- Video screen

Description: Full-screen image of video screen with controls along the bottom. One control for channel switching, one for full speed replay, one for slow motion replay, one to change camera angle, one to visual scan (forward), one to visual scan (backward).

Action: Channel changes each time the appropriate control is clicked (ala Ultima VI). Aside from that, controls allow player to access various replay functions.

Text: Appropriate to images on video screen.

#### 6. CU -- Barracks door

Description: Metal door with "Pilots' Quarters" stenciled on it.

Action: None. Clicking on the door calls up a menu of options (Select Pilot, Create Pilot, Save Game, Quit to DOS, etc.)

Text: "Pilots' Quarters"

### IX. COMMANDER'S OFFICE

#### 1. Medium shot -- Door to Commander's office

Description: A metal door, like one you'd expect to see on an aircraft carrier. The commander's name and rank appear on a nameplate.

Action: Click on doorknob and door swings open, revealing a bitmapped image of the commander's office.

Text: Commander [NAME]

#### 2. Medium CU -- Commander

Description: Commander seated at simple, metal, military-style desk.

Action: Commander examining papers on his desk, shuffling them about, writing. He looks up and starts talking as the player enters.

Text: Appropriate to the situation (reprimands, promotions, new assignments, new ships, etc.)



Squadron animation scene changes

### Briefing

Shots 1: Not quite so long a shot. Add silhouette of pilot at front of room in shot 1 when there's a medal ceremony.

Shot 2: Add action to the corner of vid screen -- static, corners of insignia, led letters appearing, etc.

Shot 7a: Begin shot with head and shoulder shots of pilot and commander then tilt down (vertical pan) to view on current storyboard.

### Landing

Shot 1: View on storyboard is the end of the shot. Beginning is further from ship by a significant margin.

Shot 2: Move the foreground object on the left side of the screen to the right side -- this will allow the ship to move behind it and settle in an open area of the screen.

Shot 3: Animate cockpit opening.

### Ready Room

Shots 1 & 3: Change medal plaque to military style chalkboard (or futuristic equivalent) showing each pilot's record.



# QUALITY ASSURANCE PLAYTHROUGH CHECKLIST

PRODUCT NAME: \_\_\_\_\_

SKU: \_\_\_\_\_ VERSION: \_\_\_\_\_

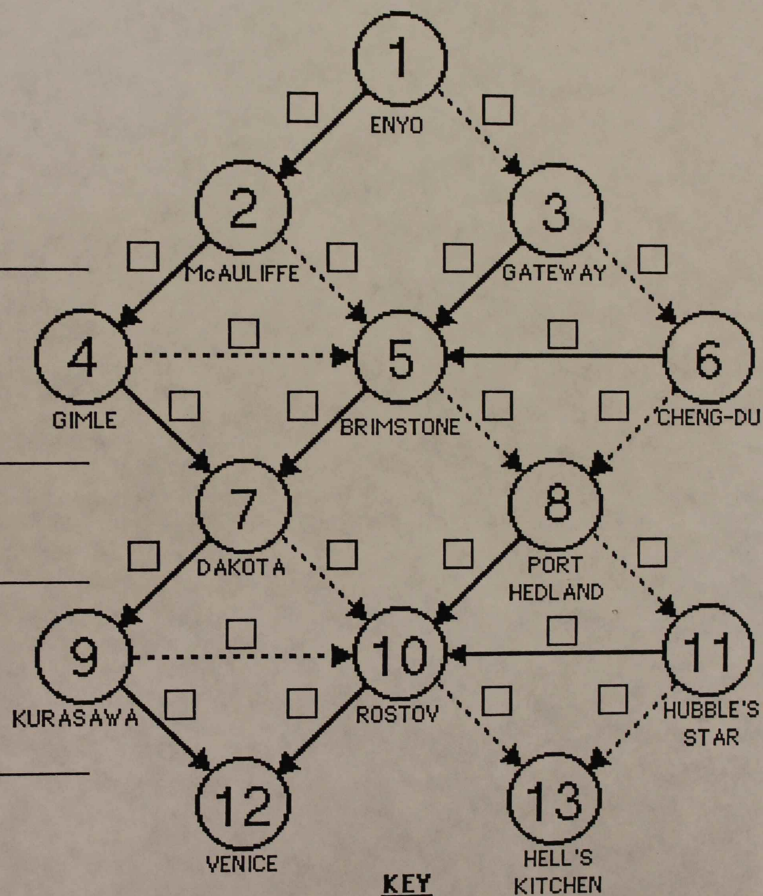
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PROGRESS SCREEN 1

PROGRESS SCREEN 2

PROGRESS SCREEN 3

PROGRESS SCREEN 4



## KEY

GOOD —————→

BAD - - - - -→

MISSION	WINGMAN	SHIP TYPE	MISSION	WINGMAN	SHIP TYPE
1	SPIRIT	HORNET	7	KNIGHT	RAPTOR
2	PALADIN	SCIMITAR	8	KNIGHT	SCIMITAR
3	PALADIN	HORNET	9	BOSSMAN	RAPIER
4	ANGEL	RAPTOR	10	ICEMAN	RAPTOR
5	MANIAC	SCIMITAR	11	BOSSMAN	SCIMITAR
6	ANGEL	HORNET	12	HUNTER	RAPIER
			13	HUNTER	SCIMITAR



## Squadron

Disc 3D



Sketches for Process Inc. to Model (Glen)

Turret for Kilrathi battleship  
Missiles

Heat seeking

For F

Image Rec.

Dead fire

Pseudo 3D

3 explosions (10 frames each)

3 asteroids (8 frames each)

Space mine (6 frames)

Sparks (several different)

Armor hit

Shield hit

Flash when hit from near driver cannon

Laser bolt

Neutron bolt (3-4? frames)

Shards (several types)

Ship chunker (smaller chunker)

Ship debris (big chunker)

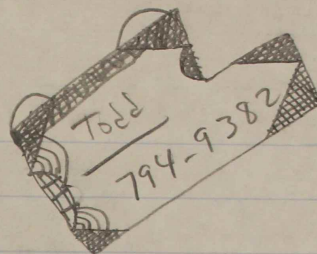
Rock chunker (when shoot asteroids)

Big nebula/planet (after mission)

Escape pod (6 frames)



## Nisc. graphics (Details)



Gun flashes (for sideviews)

Sparkily (cockpit interiors when hits suffered and display's go bad)

## HELL's Kitchen

### Plus

- ① Basic concept (Pac-Man from victim's perspective)
- ② Random goals + Map layout
- ③ POV
- ④ Room selection (all fit in w/story)
- ⑤ Copy protection
- ⑥ Random damage to Energy Vampires (Extends to other creatures?)
- ⑦ Small view window (limit info - heighten suspense)

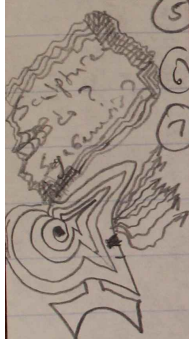
### Minus

- ① Team concept - Just one char.
- ② Art. of art required.
- ③ Lack of speed in movement (No run option)
- ④ Setting (sterile lab less interesting than deserted mansion...)

Let's get Stephen King...

... or Clive Barker

(Maybe Peter Straub or Dean Koontz...)



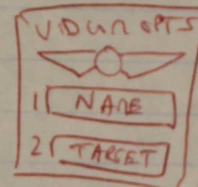
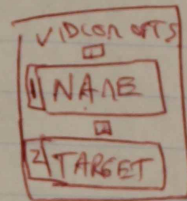


21

① Delete "You" in Vid-Con options

my

Y N RETREAT! (RETURN TO CARRIER).  
 2Y N BREAK FORMATION (& ATTACK).  
 2Y N REFORM.  
 2Y N ATTACK MY TARGET.  
 2Y N HELP ME  
 (CHANGE FORMATION?)



condition type, value, ~~action~~ text ptr, action ..... , Ø  
 GENERIC CONDITIONALS

text - ptr, conditional type, value - check against,

0  
1  
2  
3

enemy pilot skill  
 current condition  
 enemy ship type

condition variable > value  
 if ~~equal~~  
 then print message.

switch (conditional type)

```

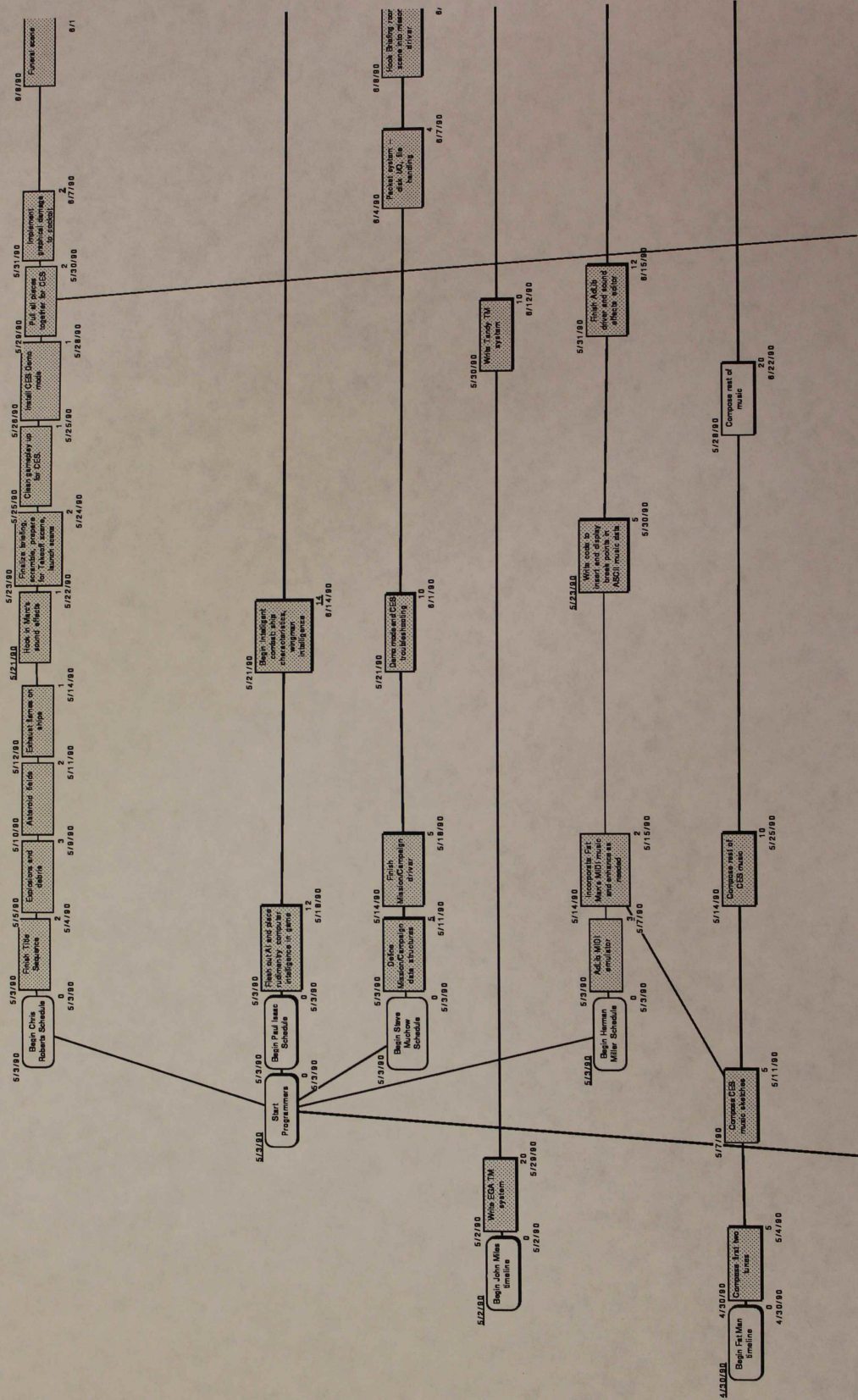
{
  case enemy skill: if (pilot skill(ship)) value
  break;
  case current condition: if (hit(ship) > d
  
```



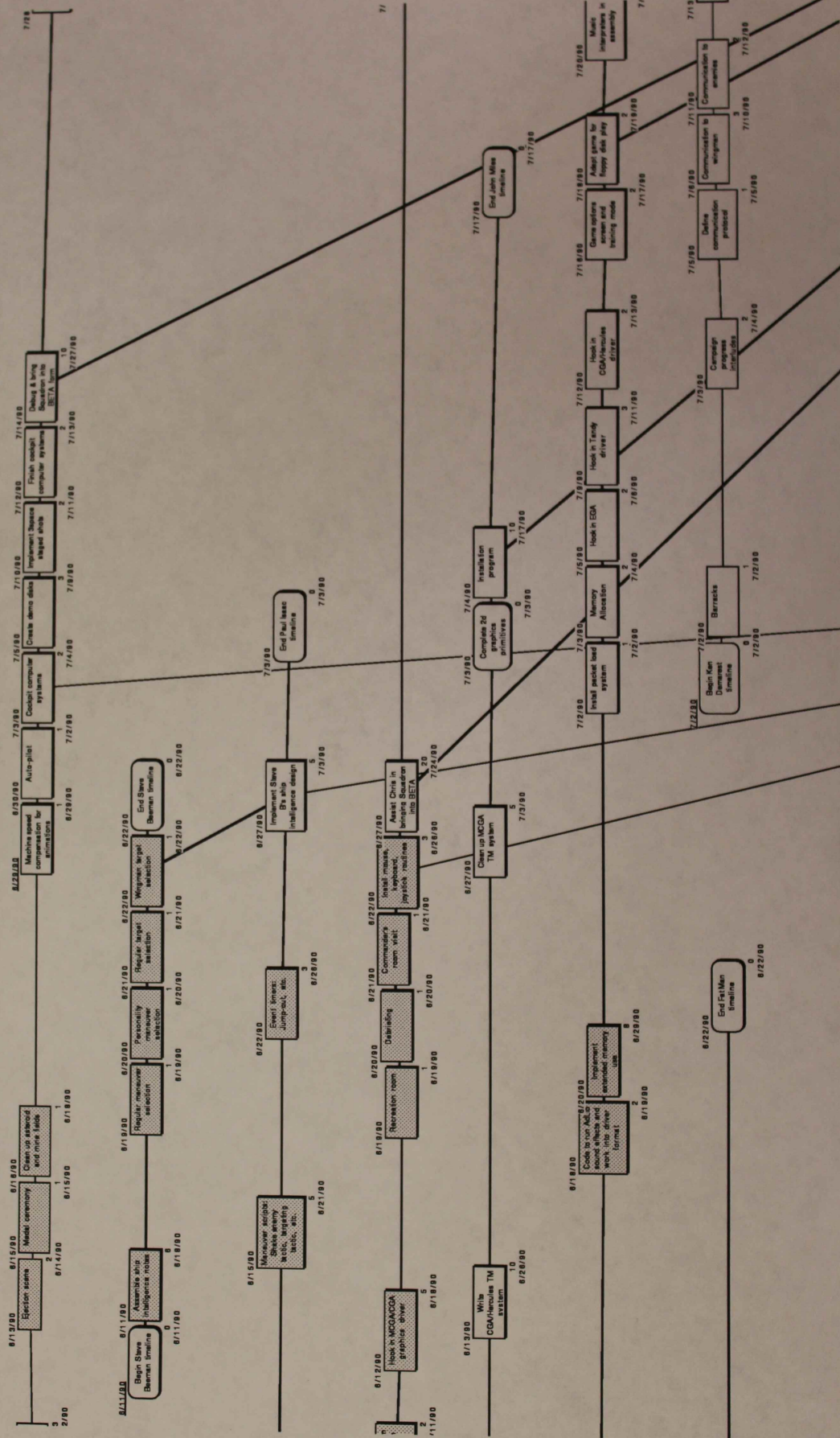
WINGLEADER™

Schedule (c)1990

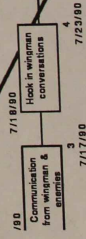
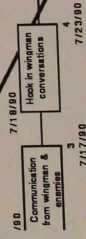
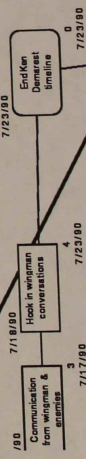
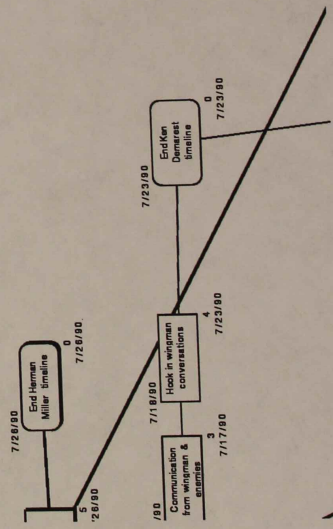
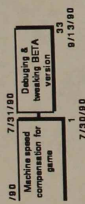
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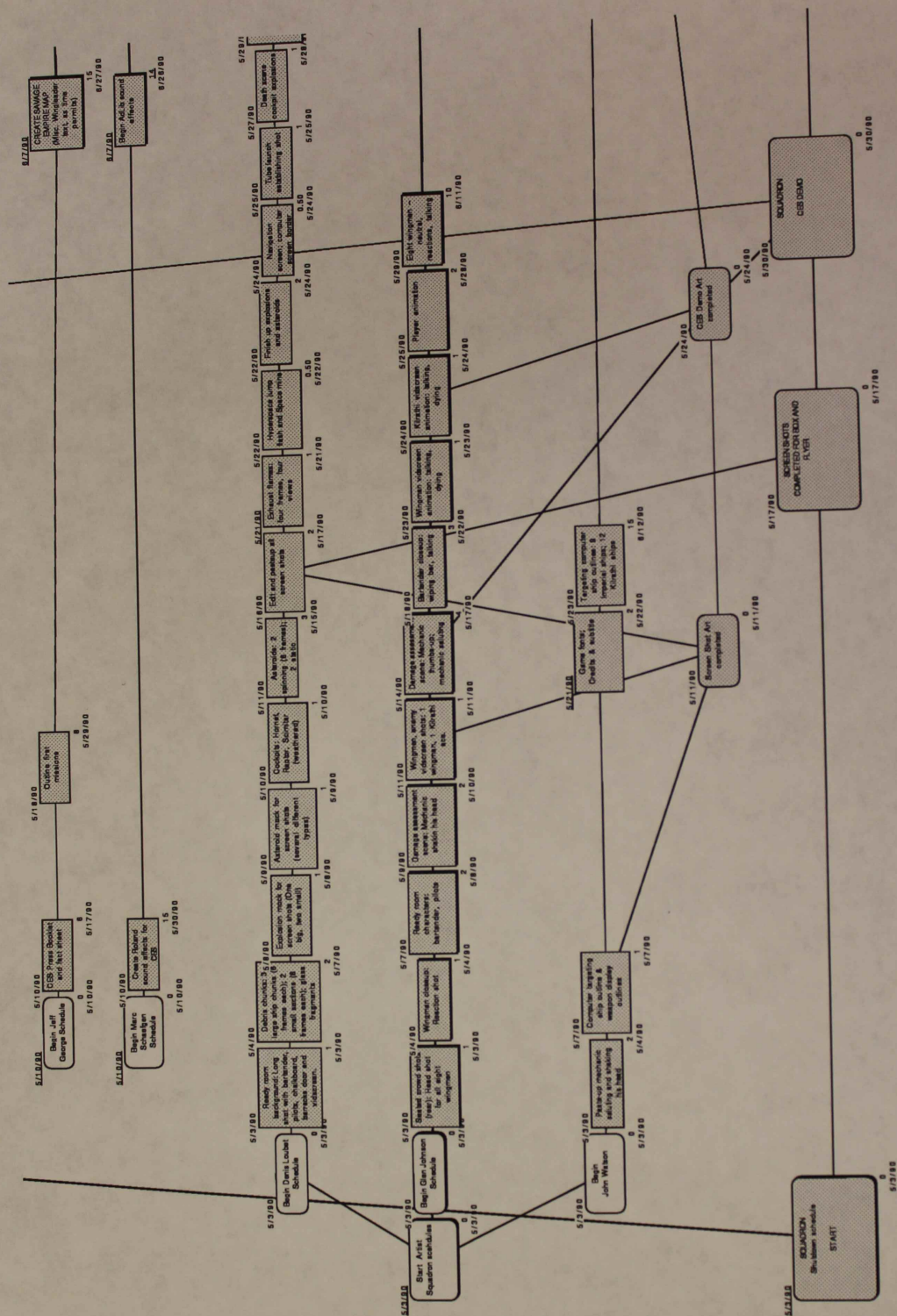




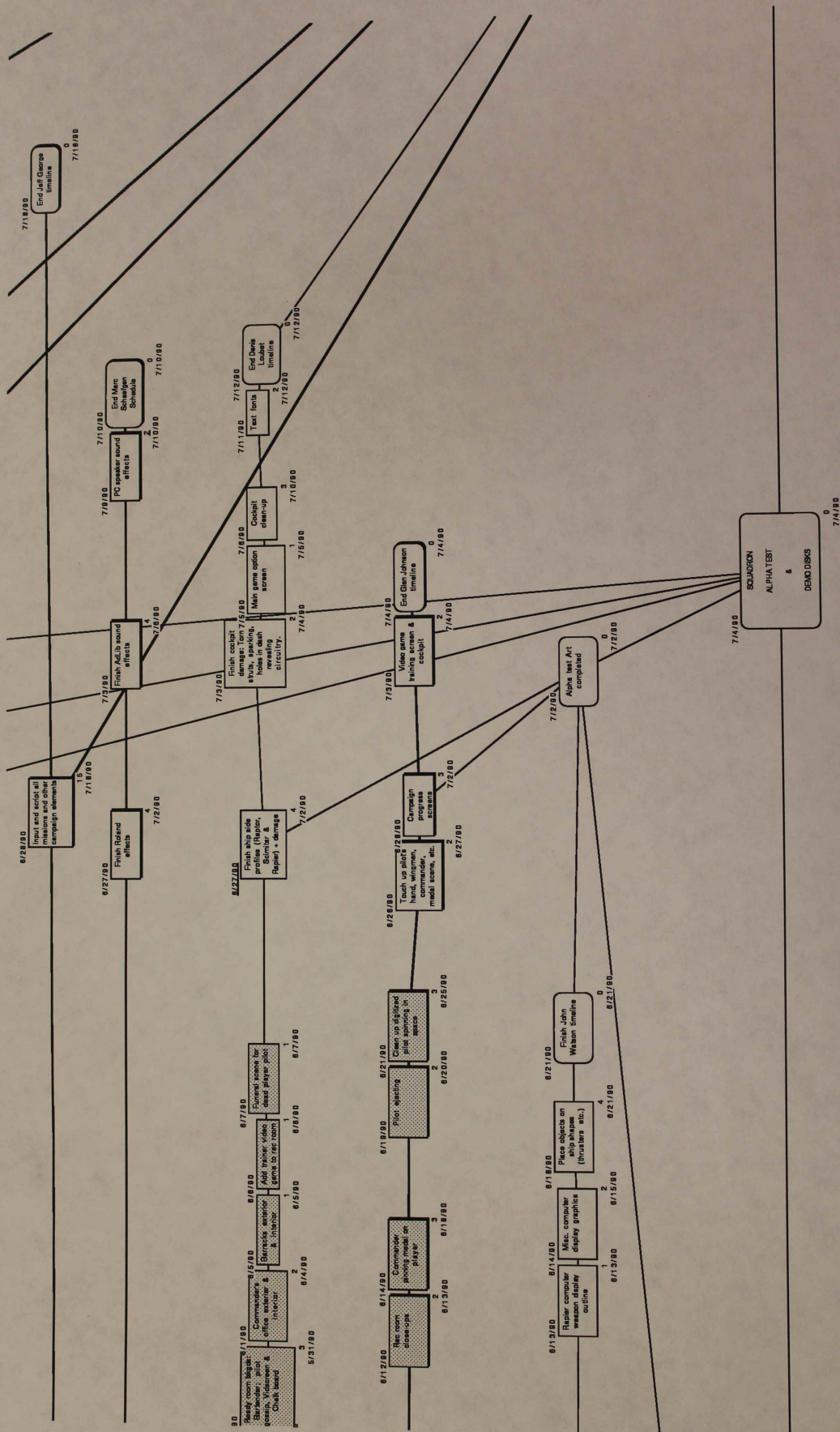




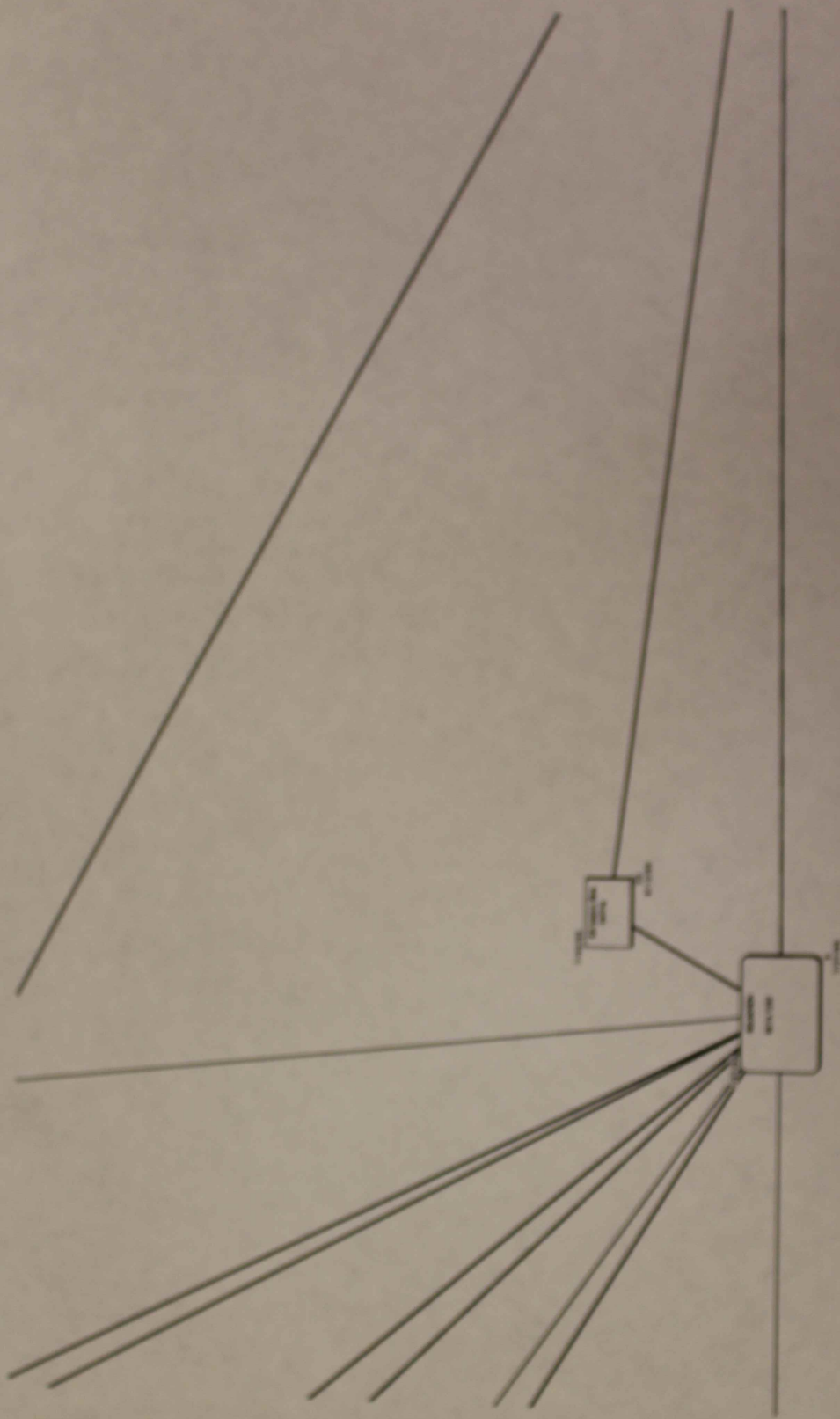




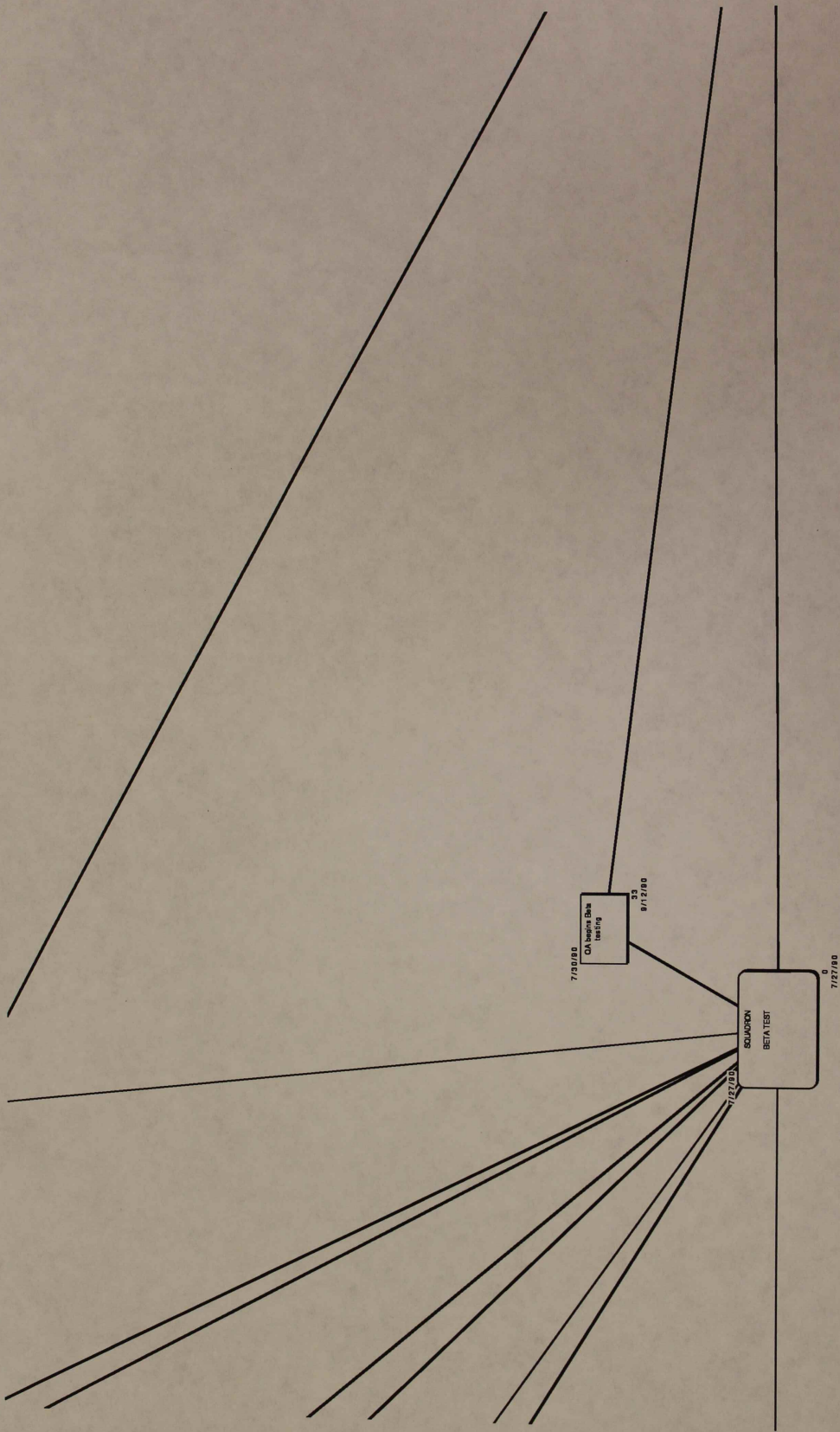




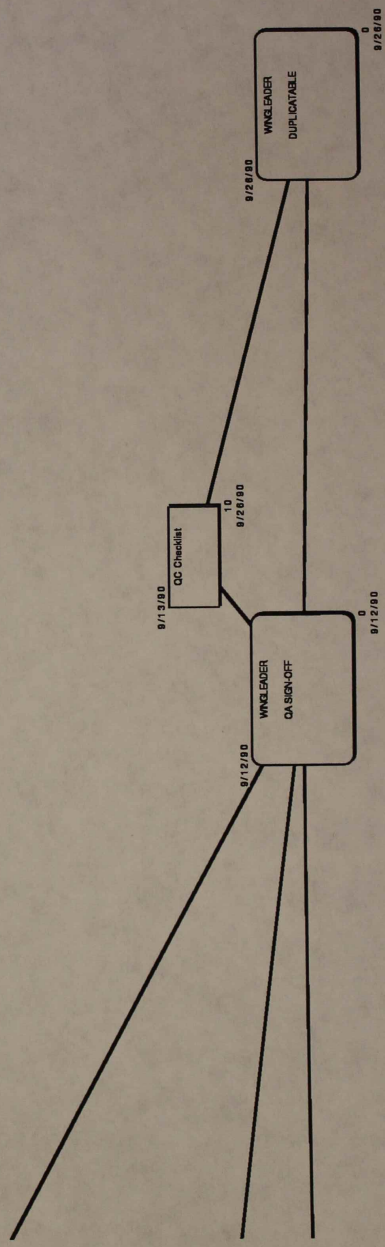














WARREN, I've marked time in red ink because I want to use the same list for distribution to the artists and I'd rather they didn't know how much time I've allowed them - only when they need to finish the graphics.

#### Squadron Art Priorities

#### I. Art tasks to start now (26th April).

##### A. Denis

1. Asteroids. **3**
  - a. 1 spinning (6 frames).
  - b. 2 static.
2. Explosions. **3**
  - a. 2 types.
    - (1) Super explosion (big ships)
      - (a) 6 - 10 frames.
    - (2) 1 medium explosion
3. Debris chunks. **2-3**
  - a. Large ship chunks
    - (1) 3 types. 6? frames each.
  - b. Smaller sections of tubing etc.
    - (1) 2 types. 6? frames each.
  - c. Glass fragment (spinning). ? frames.
4. Ready room. Long shot of room containing bartender, pilots, chalkboard, barracks door and vidscreen. Glen to do all people. **1**
5. Cockpits **1-2**
  - a. Weather, beat up.
    - (1) Hornet.
    - (2) Raptor.
    - (3) Scimitar.
6. Text font. **1/2**
  - a. Large point subtitle font.
7. Logo (to match game logo). **1**
8. Space mine. **1/4**
9. "Jump" flash (picture Q appearing in Star Trek). **1/2**
10. Squadron cinematic panavision screen. **1**
11. Edit and paste up screen shots. 2 days.

13<sup>th</sup> May.

##### B. Glen

1. Wingman closeup. **1/2**
  - a. Reaction shot.
2. Crowd shots (rear). **2**
  - a. Seated.
    - (1) Different rear head shots for all 8 wingmen/women, player & generic. 3 days.
3. Characters (bartender, pilots) for ready room scene. **2**
4. Damage assessment scene. **2**
  - a. Mechanic shaking his head.
5. Wingmen/Enemy vidscreen shots (static). **1**
  - a. 1 wingman.
  - b. Kilrathi ace.
6. Damage assessment scene. **4**
  - a. Mechanic thumbs up.
  - b. Mechanic saluting.



- a. 1 wingman.
- b. Kilrathi ace.
- 6. Damage assessment scene. **4**
  - a. Mechanic thumbs up.
  - b. Mechanic saluting.

C. Dan

- 1. Touch-up pilots right arm.  $\frac{1}{2}$
- 2. Pilots left arm. **1** — need new digitizing.
  - a. Thumbs up.
  - b. Clenched fist. **1**

D. Keith/John Watson

- 1. Paste up on mechanic saluting & shaking his head. **2**.
- 2. Computer targeting ship outline. **30 min**
  - a. Ship ? targeted in screen shot.
- 3. Computer weapon display outlines.  $\frac{1}{2}$ 
  - a. Hornet.
  - b. Raptor.
  - c. Scimitar.

II. May 15th screen shots finished.

III. Start on graphics for CES.

A. Denis

- 1. Projection screen in briefing.  $\frac{1}{2}$
- 2. Navigation screen. Computer screen border.  $\frac{1}{2}$
- 3. Tube launch establishing shot.
- 4. Explosions for cockpit front view during death scene. **1**
- 5. Ready room. **1**
  - a. Bartender backdrop.
  - b. Pilot gossip backdrop.
- 6. Exhaust flaming (4 frames), 4 views. **2**
- 7. Player ship side profile. **1**
  - a. Raptor.
  - b. Unit and kill markings.
- 8. Cockpit damage. **3**
  - a. For Hornet and Raptor.
    - (1) Torn struts.
    - (2) Sparking.
    - (3) Holes in dash revealing circuitry.
- 9. Exterior damage effects. **1**
  - a. Spark against shield.
  - b. Spark against armor.
- 10. Projectile shapes. **1**
  - a. Mass driver shell.
  - b. Neutron bolt (4 frames of "arcing" energy)
  - c. laser bolt.

B. Glen

- 1. Crowd shots (rear). For use in briefing and medal scenes. **2**
  - (1) Standing.
    - (a) Different heads for wingmen, player & generic.
- 2. Bartender (close up). **3**
  - a. Wiping bar.
  - b. Talking.



- generic.
2. Bartender (close up). 3
    - a. Wiping bar.
    - b. Talking.

3. Wingman reaction shot. 2
  - a. Reactions.
  - b. Talking.
4. Vidscreen animation. 4
  - a. 1 wingman.
    - (1) Talking.
    - (2) Dying.
  - b. 1 Kilrathi ace.
    - (1) Talking.
    - (2) Dying.
5. Player. 2-3
  - a. Reactions.
  - b. Talking.

C. Dan/Keith/John Watson

1. Computer targeting ship outlines.
  - a. Remaining ships in squadron. 3
    - (1) 9 Imperial ships.
    - (2) 12 Kilrathi ships.
2. Computer weapon display outline. 1/2 hr 30 min.
  - a. Rapier.
3. Misc. computer display graphics. ?

IV. May 31st CES graphics completed.

V. Start on graphics for game completion.

A. Denis

1. Backdrop for medal pinning (close-up in briefing room). 1/2
2. Player funeral backdrop. 1
3. Commanders office. 2
  - a. Exterior shot (door).
  - b. Interior backdrop.
  - c. Close-up backdrop.
4. Ready room. 3
  - a. Vid screen close-up.
  - b. Barracks backdrop (for save game).
  - c. Mission/campaign status chalkboard close-up.
5. Finish Player ship side profiles. 2
  - a. Scimitar.
  - b. Rapier.
6. Edit cockpits. 4
  - a. Scimitar.
    - (1) Damage graphics.
  - b. Rapier.
    - (1) Damage graphics.
7. Finish up asteroids. 3
  - a. 1 spinning asteroid.
  - b. 1 static asteroid.
8. Finish up explosions. 3
  - a. 1 medium explosion.
  - b. 1 small explosion.



- a. 1 wingman.
- b. Kilrathi ace.
- 6. Damage assessment scene. 4
  - a. Mechanic thumbs up.
  - b. Mechanic saluting.

- 9. Finish up space junk.
  - a. Two other shard types. 1
  - b. Misc. space background objects. 2
    - (1) Planets.
    - (2) Nebula.
    - (3) Gas clouds.
- 10. Top-Gun training school backdrop. 1
- 11. Campaign progress interlude screens. 4
  - a. ? screens.
- 12. Different map backdrops for navigation screen. 2
- 13. Pilot ejection ?
- 14. Clean fonts up. 1
- 15. Edit & clean up graphics. 10

#### B. Glen

- 1. Crowd shots (rear). For use in briefing and medal scenes. 5
  - a. Body actions.
    - (1) Clapping.
    - (2) Cheering.
- 2. Medal pinning. 3
  - a. Medium range shot of commander pinning medal to player.
- 3. Finish wingmen reaction shots. 14-16 .
  - a. 7 wingmen.
    - (1) Reactions.
    - (2) Talking.
  - b. Player.
    - (1) Reactions.
    - (2) Talking.
- 4. Finish vidscreen animations. 24
  - a. 7 wingmen.
    - (1) Talking.
    - (2) Dying
  - b. 3 Kilrathi aces.
    - (1) Taunting.
    - (2) Dying
  - c. Flight commander on Tiger's Claw.
    - (1) Talking.

VI. Squadron game art finished



# Macintosh Commander?

*A Proposal For Origin Systems To Begin Porting Software To The Macintosh  
Presented January 4, 1993  
by Philip H. Sulak*

## I. Overview

When Richard and Robert Garriott started Origin Systems, the company's main market was the Apple II. Due to the more recent popularity of the IBM-PC and clones, a shift to the PC-based market began with *Ultima VI* and *Wing Commander*. The new low-cost Macintoshes from Apple have made a long-established market more attractive for game development. Due to this recent turn of events, the Macintosh will now provide a worthwhile platform for Origin's product line.

## II. State of the Macintosh Game Market

The Macintosh has come a long way since the black and white unit introduced in 1984. In 1987, it came of age: a very powerful computer, equipped with a 68020 processor (roughly equivalent to a 386-16), and a 640x480x256 color graphics standard, known as the Macintosh II. Due to the very high initial prices of the Mac II and its derivatives, color Macs were generally limited to the educational and corporate worlds. Finally in 1990, Apple began to deliver machines at a cost low enough to ensure wide-spread use as home machines when it introduced the Mac Classic, LC, and SE. Shortly thereafter, Apple released its high-end 68040-based Quadra line, which easily hold their own against 486-50s. Most recently, Apple debuted the Performa line: low-cost, 68030-based machines targeted solely for the home market.

The computer gaming market has yet to catch up game releases to satisfy this suddenly immense market. There are some success stories, however. Some of the recent highlights in the Macintosh game market:

**Broderbund.** *Prince of Persia*. Released about 4 months ago, *Prince of Persia* is doing very well on the Mac. Current sales: around 40,000 units.

**Velocity.** *Spectre*. Released about 6 months ago, *Spectre* is a *Battlezone* clone with a few twists such as hip texture-maps and network play. It uses simple wire-frames to depict enemy tanks and has a "capture the flag" feel to it. Current sales: 40,000 units.

**Graphic Simulations.** *Hellcats Over The Pacific*. *Hellcats* is quickly becoming one of the most popular and successful games ever on the Mac. Released in early 1991 by a Mac-only game producer, sales have been so good that retailers have problems keeping it in stock. In December 1992, Graphic Simulations released a scenario disk, *Missions At Leyte Gulf*, and it too is generating a great deal of sales. Graphic Simulations is currently working on an F-18 Hornet



simulator, based on the *Hellicats* engine. The updated engine is rumored to be so hot that it has been demo-d at Apple Developer's Conferences. Current sales: [available when they return from Macworld]

**Strategic Simulations Incorporated.** The fabled new "Dark Sun" engine and its first game *Shattered Lands* are currently scheduled to be available in March of 1993. SSI plans to release PC and Mac versions concurrently.

**Electronic Arts.** The "home office" in San Mateo has a Macintosh port of *Chuck Yeager's Air Combat* in production, and other ports are under discussion.

Macintosh games tend to sell at the same rate for a longer time, generating revenue more consistently than PC products of the same title.

*Falcon* by Spectrum Holobyte: over 100,000 units sold from 1986-1990.

*Tetris* by Spectrum Holobyte: over 70,000 units sold from 1988-1991.

*Sim City* by Maxis: well over 100,000 units sold from 1988-1991.

Other Macintosh game titles are listed in Appendix A.

### III. Proposal

Considering the current state of the Macintosh game market, as well as the near-future releases on the major game companies' schedules, Origin Systems is uniquely poised to take over what is effectively an open market. The only flight simulators currently available for the Macintosh market are *Hellicats of the Pacific*, *Falcon MC* ("Mac Color"), and *Red Baron*. None of these games come even close to what is considered barely passable for PC games of the same type. This is due primarily to the fact that except for *Hellicats*, the technology has not been updated in nearly three years, because of a catch-22 situation developed by the game companies: there is no point in developing really good stuff for the Mac because not enough people buy the really cheesy games that are put out for it. This leaves the market wide open for Origin to develop games for the Macintosh, specifically to port its already successful titles. Porting is the best choice for many reasons, primarily because it cuts down significantly on project duration, and because the titles Origin could port have already proven successful.

What better product line to begin with than the most popular game series Origin has ever produced? Considering the fact that *Wing Commander* and *Wing Commander 2* have sold 500,000 worldwide, a Macintosh *Wing Commander* port would make a great deal of sense for Origin. *Wing I* was a very profitable piece of software, and the code is small enough that it would only take a few programmers to port. Add an artist/TDA and the team is practically complete. Porting *Wing Commander* would also give us plenty of time to develop a reusable set of code libraries for the Mac, which can be used as a stepping stone to future development to ensure continued success.



#### IV. Nuts and Bolts

TMDraw, Origin's proprietary graphics engine, does not exist on the Mac, and would have to be translated to 68000 Assembly language for the Mac. The best way to handle this would be to first write out the basic code for TMDraw in the C language, and then ask the compiler to convert it to Assembly. A 68000 Assembly programmer would then be necessary to optimize the code. By either contracting this out, or borrowing a Sega 68000 programmer for two months would suffice, as the conversion to C was completed for the FM-TOWNS project. Once this step is completed, however, TMDraw would exist as a reusable tool.

The greatest risk in the *Wing Commander* port to the Mac lies in the graphics. Stunning as they are on the PC, the graphics in both *Wing* games are not that impressive to Macintosh users, who are used to the standard 640x480x256. This should not be a problem in the action/flight sequences, however, as having such a game as *Wing Commander* running in any graphics mode would be impressive. After all, the average Mac computer gamer is impressed by the graphics in *Hellicats*, which are nothing more than very simple polygons. By running the "talking head" midgames in a 320x200 window and the flight sequences at four times the original, as on the FM-TOWNS, on the entire screen, the most ardent Macintosh fan will be more than satisfied.

The greatest challenge in porting a game to the Mac is the sound system. Macs do digitized sound extremely well due to the fact that it's built into the operating system, but there are some problems with music. Unlike the AdLib and Roland LAPC-1 on the PCs, the Mac has fairly weak synthesis ability. However, John Miles possibly has version of AIL under development for the Macintosh. Licensing AIL for the Mac would almost certainly solve all the music and sound problems. If this is not the case, some compromise of music quality and frequency would probably be necessary.

Using the code from the FM-TOWNS conversion rather than the PC of *Wing Commander* would save vast amounts of time. Both Richard Haley and Rob Broussard recommend this course of action, and for many good reasons. First, the *Wing* code on the TOWNS has been through two levels of beta testing, the first in the PC version and the second after the conversion. Second, Richard and Rob have found and cleaned up most, if not all, of the remaining quirks in the original *Wing Commander* system. Third, as previously mentioned, Rob has already written TMDraw in C, which can be used to generate the Assembly needed for the Mac. Finally, the FM-TOWNS, like the Mac, is a linear-memory based machine, which addresses the last problem of the Mac conversion. The PC has a "segmented architecture" that forces programmers to spend a great deal of time manipulating code so that it can deal with "near", "far", and "EMS" memory. The FM-TOWNS coders have already changed the code over to the flat memory system that both the FM-TOWNS and the Mac use. All these achievements from the FM-TOWNS group will save at least a month of development time and possibly another month of Beta time as well.

#### V. Piracy



In the past, software piracy has haunted Macintosh developers. However, as programs grow larger, the problem has tapered off accordingly. When four or five games could fit on one low-density disk, piracy was easy: hassle- and guilt-free. It was easy for a pirate to convince himself that what he was copying was merely a small bit of work. Programs such as Microsoft Word and Excel have no copy protection, yet are seldom pirated in their recent incarnations. This is because Mac users are simply not used to having to haul around 5 disks to pirate a single piece of software. In addition, all the currently popular Mac games, such as *Hellcats Over the Pacific*, and *Spectre* take up one or two low density disks at most, yet their sales have not seemed to suffer. It would seem, then, that Mac games are now in the realm of PC games when the issue is software piracy.

## VI. Basic Estimations

Here are some basic cost estimations for Personnel, hardware, and software needed to undertake a conversion of Wing Commander to the Macintosh:

who or what	estimated cost
3 programmers	\$84,600
(or 2 programmers with a third paid by contract).	
1 TDA.	\$23,800
1 artist.	\$28,000
Approx. 1 month of sound work.	\$7,600
2 Macintosh Quadra systems for code development.	\$5,000 each
3 Macintosh SI or IICI machines for TDAs & artists	\$2,500 each
New User Subscription to "E.T.O." (Essentials, Tools, Objects),	\$995
which contains the "Macintosh Programmer's	
Workshop", Apple's Mac C and Assembly compilers, as	
well as a year's worth of CD-ROM code updates and full	
sets of manuals for all their development products.	
Copy of Macintosh Programmer's Workshop (2nd prog.)	\$450
Copies of Deluxe Paint, Studio 8 for artists and TDAs	\$0.00
QA hardware machines (most likely could be provided by	\$0.00
Electronic Art's QA staff in order to avoid more costly	
machine investments)	
<b>Total</b>	<b>\$160,445</b>

Assuming Mac Commander **started in February**, it would take seven months for an October '93 finish and the all-important Christmas ship. The FM-TOWNS group took nine months, but two of those can be ascribed to dealing with a Japanese-speaking computer. Richard Haley and Rob Broussard agree that if they had ported the game to an "English" FM-TOWNS, it would have taken only seven months. In addition, Origin has the advantage of drawing experience from the original programmers such as Paul Isaac, Ken Demarest, and Herman Miller as well as the FM-TOWNS group. Finally, we'll have the "re-vamped" FM-TOWNS version of the code that should trim even more time off the development cycle.



## VII. Summary

The Macintosh game market is not only blossoming, but is virtually wide open to a quality space combat simulator such *Wing Commander*. The product would have an excellent chance of meeting a Christmas 1993 ship deadline, and would easily set the Macintosh game market on its ear just as *Wing I* revolutionized the PC game market in 1990. *Secret Missions I* and *II* could also be released, as well as a speech disk to collect even greater sales. Further, the code developed for the game could be used in the future to port other, more technically advanced games such as *Wing II*, *Privateer*, *Strike Commander*, and the *Ultima* series. Now is the time for Origin to begin porting some of its quality products to a "new" innovative platform. Origin would be welcomed with open arms by the thousands of Macintosh owners hungry for quality games.

<i>Wing Commander</i>	Electronic Arts	available now
<i>Wing Commander II</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions II</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions III</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions IV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions V</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions VI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions VII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions VIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions IX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions X</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XXXIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XL</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions XLIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions L</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXIV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXV</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXVI</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXVII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXVIII</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXIX</i>	Electronic Arts	available now
<i>Wing Commander: The Secret Missions LXXXXX</i>	Electronic Arts	available now



## Appendix A: Current and Upcoming Macintosh Game Releases

Product	Author	Availability
<i>-----</i>	<i>-----</i>	<i>-----</i>
<i>Hellcats Over the Pacific</i>	Graphics Simulations	available now
<i>Hellcats: Mission at Leyte Gulf</i>	Graphics Simulations	available now
<i>4D Boxing</i>	Electronic Arts	available now
<i>Sim Life</i>	Maxis	available now
<i>A-Train</i>	Maxis	available now
<i>Prince of Persia</i>	Broderbund	available now
<i>Indiana Jones and the Fate of Atlantis</i>	Lucas Arts	available now
<i>Monkey Island</i>	Lucas Arts	available now
<i>Leisure Suit Larry V</i>	Sierra	available now
<i>Castle of Dr. Brain</i>	Sierra	available now
<i>Lemmings</i>	Psygnosis	available now
<i>Falcon MC (Mac Color)</i>	Spectrum Holobyte	available now
<i>Red Baron</i>	Dynamix	available now
<i>Might &amp; Magic III</i>	New World	available now
<i>Civilization</i>	Microprose	available January '93
<i>Rex Nebular</i>	Microprose	available early '93
<i>King's Quest VI</i>	Sierra	available March '93
<i>F-18 Hornet</i>	Graphics Simulations	available March '93
<i>Dark Sun: Shattered Lands</i>	SSI	possibly March '93
<i>Chuck Yeager's Air Combat</i>	Electronic Arts	available Summer '93
<i>Aces Over the Pacific</i>	Dynamix	possible late '93 release
<i>Monkey Island II</i>	Lucas Arts	available Summer '93



RESOURCE	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	TOTAL
<b>Programmers</b>								
Programmer 1	\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$32,900
Programmer 2	\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$4,700	\$32,900
Programmer 3	\$4,700	\$4,700	\$4,700	\$4,700	\$0	\$0	\$0	\$18,800
								\$0
<b>Artists</b>								\$0
Bit-mapper 1	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$28,000
								\$0
								\$0
								\$0
<b>TDAs</b>								\$0
TDA 1	\$3,400	\$3,400	\$3,400	\$3,400	\$3,400	\$3,400	\$3,400	\$23,800
								\$0
<b>Audio</b>								\$0
Composer					\$3,800			\$3,800
Sound FX					\$3,800			\$3,800
								\$0
								\$0
<b>Equipment</b>								\$0
2 Mac Quadras (coders)	\$10,000							\$10,000
2 Mac SIs or IICIs (TDA and artist)	\$5,000							\$5,000
New user subscription to ETO	\$995							\$995
Macintosh Programmers Workshop	\$450							\$450
								\$0
<b>MONTHLY TOTAL</b>	\$37,945	\$21,500	\$21,500	\$21,500	\$24,400	\$16,800	\$16,800	\$160,445
								\$0
<b>CUMULATIVE TOTAL</b>	\$37,945	\$59,445	\$80,945	\$102,445	\$126,845	\$143,645	\$160,445	\$160,445



## GAME'S I'D LIKE TO DO...

### Alien Commander

This game combines Underworld technology with a Wing Commander storyline. The technology is strong and there have been very few first-person SF games (none of them successful, to my knowledge). We all know the strength of the Wing Commander trademark.

It's been over a decade since the destruction of the Tiger's Claw and a huge chunk of the old girl has been discovered in a backwater portion of the galaxy. Strange signals are being picked up from the derelict and the player has been sent to investigate.

The player's ship is mysteriously destroyed after he's dropped off on the derelict, leaving him alone, with no way to signal for help. Exploration reveals that the chunk of the Claw is remarkably well-preserved, though there's no power and the life-support systems are out. (The player must wear an armored space suit, explaining why his view is so small and also why he has no peripheral vision...)

There are lots of creatures roaming around the ship, most of them dangerous. There are some people, too -- a few survivors of the Claw's explosion (some in suspended animation, some just recently awakened), a salvage crew that was drawn here by the same signals that attracted you, some folks/creatures you just can't explain.

What the player doesn't know (and must learn) is that members of the race known as the Double Helix (introduced in the Claw Marks magazine included with Wing Commander) had infiltrated the ship before it was blown up. They've spent the last ten+ years taking over the living creatures on the ship -- most (but not all) of the people and creatures the player encounters are DH hybrids.

The DH are genetic manipulators. They survive and thrive not by reproducing, but by merging with new races. The hybrids created by the merger are shape-shifters. There's no way to tell an enemy from a friend...

[THERE SHOULD BE AT LEAST ONE WAY TO TELL, SOMETHING SUBTLE.]

As the player explores the corridors of the ship, he must get the power on, find oxygen, repair life-support and communications systems, acquire new components for his suit, new equipment he can fit to the suit or cart along with him for when he needs it. He must figure out that things are not what they seem, avoid being taken over by the DH, etc.

Just when he's starting to get a handle on what's going on, the Confederation signals that a cadre of Kilrathi are on the way -- they've picked up the signals from the ship, too. When they get on-board, they'll be at risk of being taken over and they'll also be a risk to the player, but they're potential allies. Only by forging an alliance with the Kilrathi can the player survive.

Finally, the player must figure out the DH big plan. [I'D BETTER FIGURE THAT OUT, TOO...]  
There's a big battle at the heart of the Claw's anti-matter reactor. Getting to the reactor is dangerous beyond belief because of the DH minions and because of amazing levels of radiation (or something). The whole look of the game changes as the core is approached (lots of flashing lights, dimming visions, countdown timers that show how long the player has to live before the radiation kills him, etc.)

The DH being at the core is huge and hideous and must be defeated or all mankind and Kilrathi-kind are doomed, of course.

When it appears the player is about to win, the DH pull out their ace in the hole -- they're not just genetic manipulators, they can survive and thrive in electronic circuitry. They've infiltrated the ship's computer system periodically and they duck in there now, intent on destroying the player even if it costs their lives. The last third (or so) of the game, takes place in cyberspace. In the Tiger's Claw's computers.

**ROBOTS:** In addition to your primary character, you start with a couple of sentries and drones. Sentries and are like floating cameras. Set one up and it can survey an area. You can switch to its view at will. What it sees replaces your view window OR it appears alongside your view, in a smaller window). Drones can fly, but can't interact with objects. Stopped by obstacles, but they're small and can squeak into/through places you can't fit. Again, you can switch to drone view.

As game goes on, you can acquire robots (and maybe other allies) you can switch to. Your character goes into stasis (so you better be someplace safe) and you then control a robot with different abilities than your



main character. Maybe you can give a robot orders and have it carry them out without direct intervention from you.

If you're in stasis and you're attacked, the screen representing your view shows what you see, flashing red. You can then switch view/control and engage in combat.

Even if you die, it should be possible (though HARD) to win using only robots.

Each sentry/drone/robot has its own capabilities, personality and way of seeing. One might see infrared, one might see ultraviolet, one has no sight at all, just a radar screen, etc. Each has own personality a la Silent Running or Suspended.

When you control a robot can you maneuver it so you can see/interact with your main character?

LOOK: Different parts of the game have different looks.

- a. Outer areas of the ship are heavily damage, lots of dangling cables, broken stuff, dark, etc.
- b. Areas where people have survived (suspended animation chambers) are lit, in decent condition. If any are awake, LOTS of spit-and-bailing wire, jury-rigged stuff.
- c. Areas controlled by DH are dark, Giger-esque nightmare places. Quasi-organic machines...
- d. Cyberspace is whatever we can make it.
- e. Space is space. (No gravity -- use retro-rockets to maneuver)
- f. The nuclear core is hell.

SKILLS: You learn new skills by jacking into the computer (once you get it working again). Gives player early exposure to cyberspace. Cool graphics as info is downloaded. Lots of images appropriate to the skill you're learning or info you're acquiring. Maybe ghost images that overlay your view, rather than solid ones that replace it. When you jack in, the DH can access your memories, pulling people from your subconscious and then shape-shifting to become them. That way you can encounter people who couldn't possibly be here.

INTERACTION: Interaction with objects (esp. computers, control panels, robots, etc.) should be realistic, not iconic. I want to reach out and push buttons on panels, see animated dials and readouts that mean something (like the HUD in a flight sim). I'd rather not shift to a conversation screen or a computer panel screen or to any screen -- ALL FIRST PERSON.

### **Death & Destruction: The Mad Scientist Simulator**

The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

First, he builds his castle. (In the introductory game, we'll provide some basic designs and let the player modify them...) Does he build an underground dungeon? Does he put a huge lightning rod on top? Does he build on the site of an ancient indian burial ground?

Then, he adds traps designed to catch potential experimental subjects or kill intruders (the pesky good guys who always seem to be lurking about).

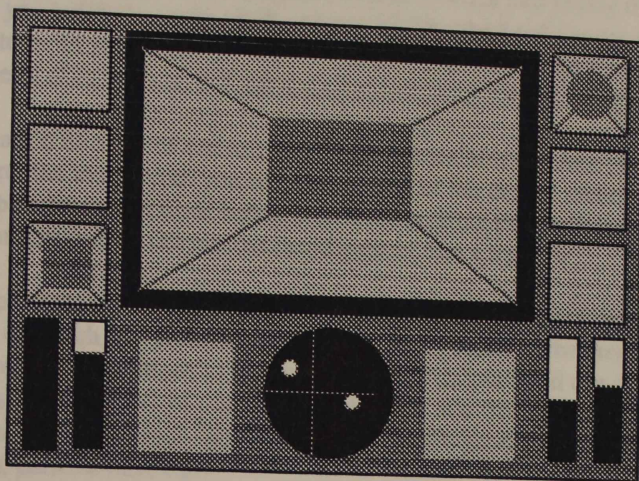
What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

1. Lemmings meets Sim City: A Constructive Game of Destruction. Build the death traps that allow you to stop the good guys before they put an end to your exploration of things man was not meant to know.



## THE ALIEN COMMANDER VIEW WINDOW:





2. Lots of Lemmings-like levels playable separately, but adding up to a big, continuing story. The first level involves running off the inhabitants of a middle-European town and razing the town so you can build your castle. Next you build the castle while staying off the attacks of the surviving locals. Then you acquire the body parts to build your monsters. Next, acquire equipment. Next send the monster to do something, etc. At the end of each level, you get a code so you don't have to replay earlier ones.

3. Employ lots of animation and lots of scaling, so player chooses how up-close and personal he/she wants to be. The closer you are, the more detail you see, but the less of the overall picture you get. Ideally, allow the player to position the camera wherever he/she wants to construct the death traps -- the world exists in 3D, not just a flat Lemmings world. not just overhead view of Sim City.

4. The death traps are constructed at the player's whim. Lots of rube Goldberg devices, made up of individual pieces, each of which has predefined qualities. Once you know the qualities, you can build anything -- this makes multiple solutions to puzzles possible. You can build one big, elaborate trap to kill lots of good guys or you can build lots of little ones to off a few at a time. Include lots of simple situations (rope bridges where you can cut through support ropes and watch good guy sway and wobble until rope snaps and he plummets, cartoon-like, e.g.)

5. You can operate alone or create/enlist monstrous assistants. If you go the latter route, the assistants assist intelligently (though not as effectively as if you gave them orders. How well they work is determined by the quality of the brain you steal for them?

6. Multiple goals, selectable at beginning of game, determined which levels you see, how difficult they are, and what story you play out. (Repeat playability)

7. Other levels:

a. Chopping Mall. A killer loose in a mall has to use materials in stores to stop police, increase body count.

b. Amusement Park Deathtrap. Construct the rides that lead straight to hell: The Roller Toaster (an electrifying thrill ride), The Splatterhorn, The Parachute Plummets, Runaway Railway, Bumper Cars, etc.

8. The Good Guys operate according to some fairly sophisticated rules which player can learn. Boy and Girl meet and they'll always go off alone together. The Scientist will always stop to inspect a machine he's never seen before. Knowing this, players can concoct funneling situations that lead to death traps.

9. We'll create licensable characters: The Evil Dr. Spector, e.g....

10. Animation must be terrific. Devices must seem real. Death must be so over the top it's funny.

11. Go it alone or enlist/dig up allies? Early levels, it's just you. Allies only become available after player masters basic game mechanics.

12. Do you give allies orders or do they have limited, pre-set behavior, like good guys? If the former, use the keyboard shortcuts or click mouse to cycle through iconic representations of options. Click on an ally with appropriate icon to change orders.

13. Play two ways -- solve puzzles or killing rampage. If latter, game should feel like Robotron. Either approach should work. A combination works best.

14. How do you get allies? All allies you need on any level are hidden there -- just find them/build them/dig them up? Carry them over from level to level? (Build monster on level one. If he survives, he appears with you on level two?) Vampires go away for sure -- daylight kills them. Werewolves go too (no full moon). Humans stay, etc.



15. Everything you need to solve a level is right there when you appear. If may be hidden or in need of assembly, but all components of machines, etc. are there. Trick is figuring out what to do with everything.

16. I'm really leaning toward side-scrolling with Sonic-size characters and LOTS of special animation for ALL characters.

17. Character development -- cartoon-like. Overzie heads. Cute, but not too cute for Evil Doc and other bad guys. WAY too cute for good guys. People should WANT to kill them.

18. Some characters: The Evil Dr. Spector (lab coat, waxed/curled moustache), Boyden (Frankenstein monster from SI), Vasel (Hunchback from SI), the cat creature from SI, etc.

### **How Does It Work? (Beneath the Surface, Layerings)**

Not a game, but an interactive teaching toy.

Computerized version of those overlay things in Britannica where top layer shows surface of an object. Remove a layer and see what's below. Remove another layer and see what's below that and so on.

For example, the human body. First layer is a human being (skin) remove first layer and hair goes away. Remove another layer and skin is removed. Remove another later and see inner organs. Remove another layer and see the nerves and muscles. Remove another layer and see skeleton. Zoom in on any layer for more detail. Further in you zoom, the more you see.

We can allow user to reveal inner surfaces of anything. I favor doing things like buildings and machines -- systems. Click on a revealed object and get a detailed view and explanation of its function.

Turn time on and off. For a building, day turns to night. Lights go on and off, people come and go. Remove outer walls and watch what goes on inside (a la Little Computer People). Player can affect various things (causing power failures, storms, etc. and see how people react).

Examine any layer or object from any angle (all 3D modeled)

Maybe allow player to take object apart and see if he/she can put it back together in working order. (Can you build a computer out of its components? Can you build a structurally sound, functioning building? Then put people in the building and see how they fare.)

We can do skyscrapers, suburban homes, egyptian pyramids, sports arenas. We can do cars, trucks, buses, planes, trains, boats. We can do the human body, dinosaurs, animals of all kinds. We can do gardens, terrariums, deserts, oceans -- the entire earth. We can do computers, VCRs, answering machines, you name it.

We can help people come to grips with all the modern technology they depend on but just don't understand.

The point of this is you can peel the layers off the onion, see how things work, how they're put together, how they interact with one another. Like David Macauley books brought to life.

Typical screen might show a skyscraper. You have several choices:

a. Remove a layer (by clicking on appropriate icon? by clicking appropriate mouse button?)

b. Zoom in (on an individual room or object or creature)

c. Start/stop time

d. Select event (power outage, thunderstorm, nuclear holocaust)

e. Build item, (parts appear. Click and Drag to construct). Software tells you whether you built it correctly and whether it would work.

Windows multi-media. Real-time video or photo of object studied with appropriate sounds. True Windows application.

Skyscraper as menu.

A better name for this might be INNER SPACES or INNER WORKINGS. Core concept is you're a tiny flying camera, capable of passing through solid surfaces. You can fly right the wiring of an office building, as if it were a highway, fly into a computer, out the cable on the back, through the chips. Fly in a human ear or eye or mouth. Do a Fantastic Voyage. Stop and look at anything you want along the way.



Select the size of your camera (called a PROBE?) to determine kinds of things you see. At electron size you'll see stuff you can't see with a baseball size probe.

Possible to combine this fast-paced, 2D flying idea with the 3D puzzle idea. Tough.

### **Cartoon Commander**

Why not take the Commander technology and do wacky, cartoonish space adventures. We've been so serious to this point -- why not do a Duck Dodgers in the 24 1/2 Century or a TOON-inspired Spaced Out SAPS adventure? How about a giant, transforming robot slug-fest? How about gigantic plush toys attacking an unsuspecting planet?

Well, it'd be different...

### **Hustler 3D Pool**

A pool game using UW technology.

Pick your scenario (Pool room hustler, Vegas pro, etc.) or start at the bottom and work your way up (another career game).

Pick your game (straight pool, nine ball, eight ball, etc.)

Pick your opponenet (seen in 3D as he/she shoots his/her game).

Pick table characteristics (cushion tension, level, surface felt condition, etc.)

Use your pool cue the way you use a sword in UW, but with finer control. You determine where on the cue ball you hit (determining spin), how hard, etc.

You can walk all the way around the table, crouch to get a low angle view, crane your neck to look down from above. Replays would be a breeze. Physics would be a breeze.

Gambling element.

Believable fantasy -- rising from the streets to a Vegas championship on ESPN

### **You Are There Sports Games (for Team Sports)**

First person team sports games where you see only what the player you select would see. Whole new approach.

You pick a team and then pick the position you'll play. Then select the characteristics of your player (or take historically accurate characteristics). All players other than the one you play are computer controlled.

In basketball, you could play center for the '69-'70 NY Knicks and see how you would have done against Wilt Chamberlain (or play AS Chamberlain). Watch from the center position as Walt Frazier drives to the hoop, swivel to the rebound, head to other end to play defense.

No knotty "Who am I controlling?" problems. Just problems real player have -- why won't Frazier pass to me? Gotta get the ball to Bradley, he's open in the corner; etc.

Emphasis on roleplaying, putting player right in the game. No one's done that before.

Allowplayer to change positions during game (only at timeouts?), but discourage it.

### **Media Mogul**

It's the 1890's and the movies are little more than a gleam in the eye of inventors and entrepreneurs around the world.

The player has some investment funds available and must select a technology -- Edison-style peep shows with short strips of film...Mutoscope-style flip cards...etc.

Once a technology is selected, he must pick a distribution/exhibition system. Will he own all of his own venues? Will he license others to show his stuff and sell them films?

He must decide how to promote his work -- will he publicize his stars or keep their names a secret so he doesn't have to pay them as much?

As time passes, new technology becomes available -- will he move into projection devices capable of entertaining many people at once or stick to the peep shows? Will he use the huge, Edison-style cameras which require studios or will he go with a Lumiere-style portable camera?

Where will he set up shop? In New York, where actors are readily available? In New Jersey, nearby and with varied scenery? In Florida or California, where the weather is better?



How will the player respond when Edison tries to monopolize the film business? When wide screen becomes available shortly after the turn of the century? When sound becomes available in the early-20s? When scandal hits? When government regulators and Wall Street money men enter the picture?

Will the player diversify into radio and/or television? When and to what degree?

How will the TV mogul deal with the introduction of cable and satellite communication?

This isn't just a dry simulation, but a dynamic, multi-media experience. The choices the player makes determine what he/she sees and hears. We'll provide little movies/TV & radio shows. Which things the player sees and hears are determined by the choices -- art or commerce? quality or quantity? If we can license REAL film/TV/radio clips, so much the better. If we can't we can always generate our own...

### **Gumshoe**

Ultima technology has always been perfect for detective stories -- in Ultima AND in the world of criminal investigation, you talk to people, hoping they'll give you clues that will allow you to solve a mystery. In both, you must track down hidden or lost items and glean their significance. In both, you must take the knowledge and items gained and solve a puzzle.

I envision an urban setting. The player is a two-bit investigator in the Mike Hammer or Travis McGee style. A woman in distress comes to him with a seemingly simple request for aid. During the course of his investigation, the player picks up hints of other cases which he can pursue or not, as he wishes.

As he follows up on some of his new leads and solves the small cases he chooses to take, he begins to detect a pattern. Many (though NOT all) of the cases seem connected. Eventually, if the player picks up on the connections and chooses to follow them up, he stumbles upon a major political cover-up that, if revealed, could shake the very foundations of the American government.

Does he continue? Can he be bought off? Can he solve the case before he's killed or the government topples?

There are more mystery novels sold each year than any other form of literature. The market is adult, men and women. Action-oriented mysteries are a staple of film and television. Computer games are just beginning to tap into this market. The success of the Police Quest series and the Carmen Sandiego games (along with a new European entry, the name of which escapes me) shows that there's a market for this sort of game and no one has ever done it in Ultima style.

### **War Room**

To date, no one's done a computer war/board game that takes advantage of one of the computer's greatest strengths -- the ability to dole out information selectively.

It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield; he'd just see a map representing it. (Imagine the British war room, from which British commanding officers conducted the Battle of Britain.)

A Hypercard-style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information and the situation as it appears on your map. You decide which information is accurate (this is used to update the map) and which is false or misleading (these messages are discarded).

Sometimes, 2-3 (or even 10-20) radio messages may come in at once, from various field positions. Messages may be garbled, or misunderstood by those manning the war room phones, or plain wrong.

Based on this information and the updated map, the player deploys forces. The enemy carries out a pre-determined plan. The results are reported (again, through intelligence reports). The reports are sometimes late, sometimes sketchy. The player learns, through trial and error, that some of his field observers are more reliable than others (though no one's perfect).

The player must decide where to move reliable observers. He must decide whether to wait for more accurate reports (the longer you wait, the better the report), or whether to move quickly on sketchy information.



This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

### **SCCA Weekend Warrior**

A racing game with a difference -- it's a believable fantasy, a career.

Start out as an amateur racer on a shoestring budget, working out of your garage. Pick your class and your races based on starting income. Go for quick rise to the top by jumping into super-competitive class or start easy, build your skill in a less competitive class where you might have an easier time racking up victories? Go for more speed but risk mechanical dnf's and more frequent/expensive maintenance?

Win enough races and acquire sponsorship (adding a business element to the game). Then move into the ranks of professionals - but do you start as a backmarker on a shoestring or wait until a REAL offer comes your way from a big team? Do you go for Indy Lights or F3 or Trans Am? Eventually you become a solid pro and get lots of offers.

Technology required: Ideally, VR helmet, steering wheel with variable tension and a joystick for shifting gears.

### **Off-Road Race**

Strike technology.

1. Set in Strike Commander universe (Strike team uses Hummers and gun-laden dune buggies)
2. Historical
  - a. Magnificent men in their jaunty jalopies wound the world race in 1910
  - b. Carrera Pan America
  - c. Paris-Dakar Rally
  - d. SF Death race 2000

### **Firefighter**

First person, you are there approach combining strategic and tactical elements.

Fight a variety of fires -- urban, suburban, forest fires, etc.

Examine maps of locations, set strategy, pick equipment and personnel. Work together with other firemen.

Do you go into the building? Do you break down that door? Do you use your axe? Do you set up ladders outside? Do you call in (and fly?) fire-fighting planes? Careful of smoke and backdrafts, etc.

### **Tunnel Rats**

UW-style first-person game of Viet Nam war -- clean up tunnels.

### **The Newspaper Game**

You own a major metropolitan newspaper in a competitive market. What stories do you run? How much do you charge? How do you layout each section? How do you respond to competition? Deal with labor? Historical approach could recreate the Hearst-Pulitzer wars. Deal with competition from other media. Become a owner of a media empire.

### **Historic Recreations**

1. We model detailed, accurate versions of key locations in history (Gunfight at the OK Corral, construction of the Brooklyn Bridge, etc.) and allow viewer to watch and listen as the participants in events go through their actions. We select most revealing camera positions.



2. Can we allow viewers to position camera wherever they want? Change position during the scene? Go inside buildings? Look through the eyes of any participant?

3. Can we allow viewers to participate? Change the actions of participants? (What if Kennedy had been in the front seat? What if Wyatt Earp hadn't been at the OK Corral? What if Earp had shown up at the wrong place?)

4. give viewers an entirely new view of historical events. (What did Oswald see as he pulled the trigger?)

### **Gangster Game**

Player takes the role of a real-life organized crime boss. (How would you do in Capone's shoes?) At any point, player can access help function that describes how real-life gangster he's playing dealt with the specific situation causing trouble (or similar sort of situation).

### **Puzzles of Britannia**

A puzzle game using U7 technology. No story (or none to speak of). Just a lot of small dungeons you have to conquer and situations you must dope out. Each one solvable in 10-30 minutes.

Standard ULTIMA graphics. Nothing new. Simple conversations in a central location to set up puzzle goals and provide some logic puzzles. Maximum use of suecode traps, etc.

### **Real Life**

Graphic adventure about real world stuff -- getting ahead at work, falling in love, getting married, getting divorced, buying a house, etc.

Set in a variety of environments, some familiar (western family stuff), some unfamiliar (surviving as a black kid in South Africa).

Put player in shoes of people from a variety of cultures as they travel the road from youth to old age. Investigate customs of various cultures.

Make western choices in an eastern culture and you're screwed. Learn about foreign cultures (through trial and error and through documentation) and you can survive and thrive...



Voice recog. for Alien Commander. Communicate with your brown by talking to them. Simple commands. (Go left. Fire east, etc.) Set up list of words in install. Have player say these words into mike so PC can learn voice.

AC - Diverge head and foot movements. Allow ducking, peeking around corners, crawling, etc.

Lucas - 3DO, Paint, Tech exchange group, AWC tools.

Shovecrane - 4 mgs report to him.

10 3DO titles in development. 2 prgs, 2 artists per project plus tools people

Gambit + Basketball unstuffed now.

4 OSI programmers / 4 OSI graphic artists here through October.

Wings not required for 3rd quarter.

All 3DO development at EA-SM.

Rob fighting for 3DO development.

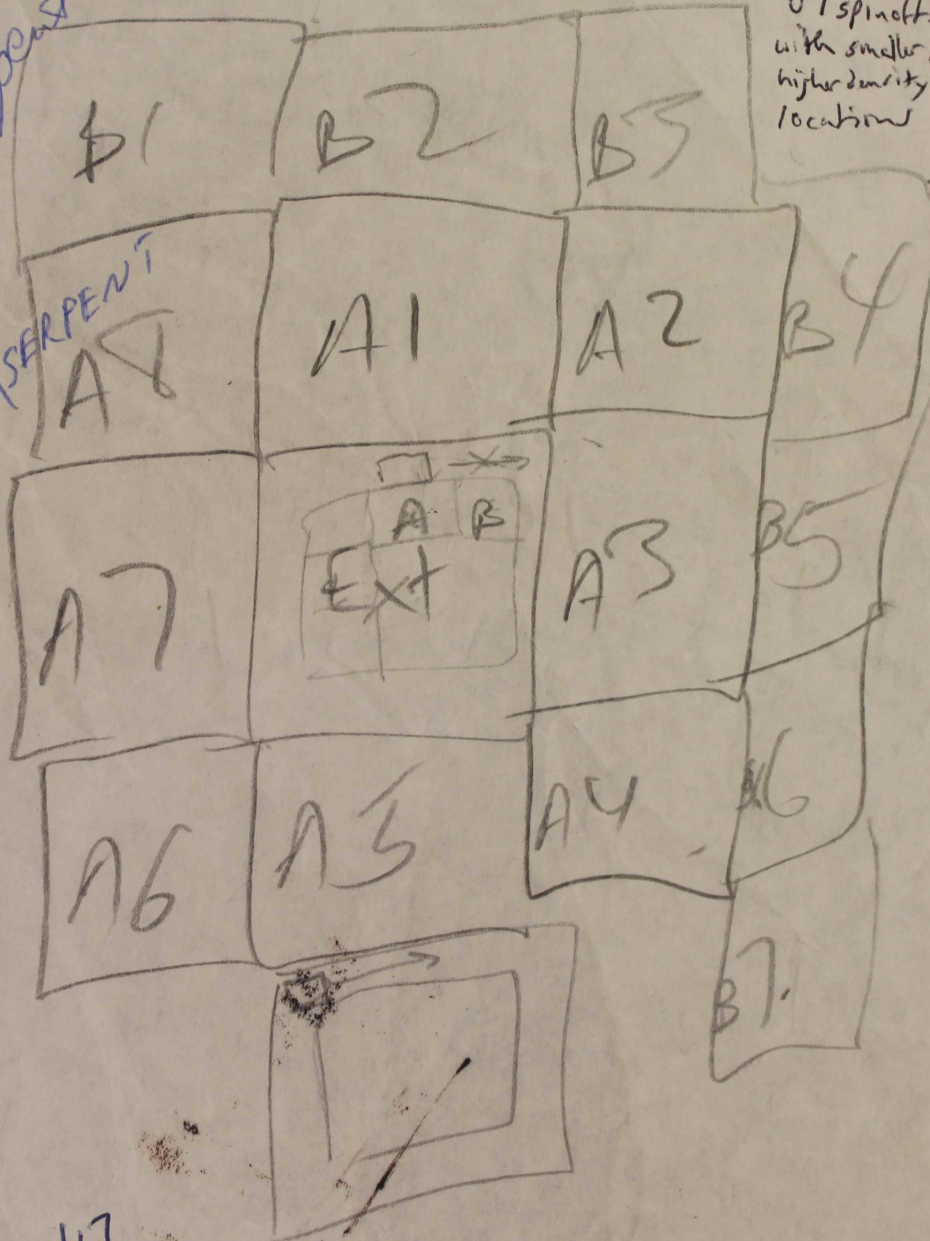


8/92

U7 spinoffs  
with smaller,  
higher density  
locations

serpent

ECTS/SERPENT



7/17



## Nat Scientist

1. Go it alone or enlist/dig up allies? Early levels, it's just you. Allies only become available after player masters basic game mechanics.

2. Do you give allies orders or do they have limited, pre-set behaviors? If the former, use keyboard shortcuts or click menus to cycle through iconic representations of options. Click on ally with appropriate icon to change orders.

3. Play 2 ways - Solve puzzles or killing rampage. If latter, game should feel like Robocon. Either approach should work. Combo works best.

4. How do you get allies? All allies you need on any level already hidden there - just find them/build them/dig them up?

~~5. Every~~ Carry them over from level to level? (Build monster on level one. If he survives, he appears with you on level 2... Vampire so away - daylight kills 'em. Werewolf so, too (use full moon). Humans stay, etc.

5. Everything you need to solve a level is right there when you appear. All components of machines, etc. May be hidden, but it's all there. Trick is figuring out what to do with everything

6. Character development - Cartoon-like. Oversize heads. Cute, but not too cute for Evil Doc and other bad guys. Way too cute for good guys. Smurfs should bark...

Evil Dr. Specter - lab coat, waxed/curling mustache  
Borden - ~~Frankenstein~~ Frankenstein monster from SI  
Vesal - Jack from SI  
Cat creature from SI



10/5/92

You are There Sports Game for Team Sports.

First person team sports game where you see only what the player you select sees. Whole new approach.

~~For Basketball~~, You pick a team and then ~~pick~~ pick the position you'll play. ~~If you pick~~ Then select characteristics of your player (or take historically accurate characteristics). All players other than one you play are computer controlled.

In hoops, you could play center for '69-70 NY Knicks or see how they would have done with Walt Chamberlain. Or play as Willis Reed. Watch from center position as Frazier drives to hoop, swirls to get rebound, ~~side~~ head to other end to play defense.

No knotty "who am I controlling?" problem - just problems a real player would have - why won't Clyde pass to me? Gotta get the ball to Bradley; he's open in the corner, etc.

Emphasis on roleplaying. Putting player right in the game.

Allow player to change positions during game, but discourage it.

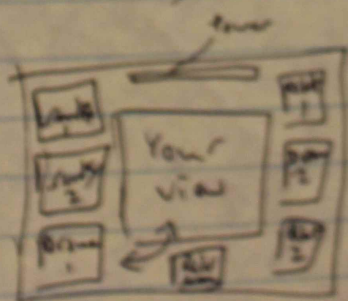


## 3D Computer Graphics: A User's Guide for Artists and Designers by Andrew S. Glassner

### Alien Commander

1. In addition to your primary character, you start with a couple of sentries and drones. Sentries are like fleshy cameras. Set one up and it can survey an area. You can switch to its view at will. (What it sees replaces what you see in your view window or it appears along it your view). Drones can fly, but can't interact (much?) with objects. Stopped by obstacles, but they're small and can squish into / through places you can't fit. Again, you can switch to their view.

As game goes on, you can acquire robots (and maybe other) you can switch to. You go into driver (so you better be someplace safe) and you control a robot with different abilities than you. Maybe you can give a robot orders and have it carry them out without direct intervention from you.



If you're in driver and you're attached, the screen represents your view through what you see through robot. The camera can rotate and zoom. Even if you do, it should be possible (though hard) to win using robots.



2. Different parts of game have different looks:

A. Outer areas of ship are heavily damaged, lots of dangling wires, broken stuff, dark, etc.

B. Areas where people have survived are lit, in decent repair, but LOTS of spit-and-bullying wire, jury-rigged stuff.

C. Areas controlled by aliens are dark, giger-esque nightmare places. Quasi-organic machines,...

D. The net is as weird as we can make it.

5. Space is space.

Learn new skills by jacking into the computer. Give player some early exposure to Net. Cool graphics or info is downloaded (lots of appropriate images - short images appear in view window).

4. Each sentry/brow/secondary "character" has its own capabilities. See the world differently (one sees infrared, one has only sonar, etc.). Each has its own personality ala Silent Running or Star Wars.

5. Interaction with objects (esp. computers, control panels, robots, etc.) should be realistic. I want to reach out and push buttons on panels, see animated lights & readouts that mean something (like in a flight sim). At very least, if we have to change a different view to interact.

6. When you control a robot, can you see "yourself" - your main character, from the viewpoint of a robot?

Maybe some people  
interested in survival  
animation.  
Maybe we can survive  
but an independent robot  
from back you here a mission  
been taken over by double Helix.  
When you jack into computer,  
DH has people's faces from  
your memories and shift  
into forms of perception  
one them.

Zero-G places. Get robot-robots  
for guidance.

Use EA-Camels  
talking heads for conversation  
stuff - no cut to convo screen



## How Things Work

Better name might be Inner Spaces or Inner Workings.  
Core concept is you're a tiny flying <sup>camera</sup> ~~thing~~, capable of passing through solid surfaces. You can fly through the wiring of an office building, fly into the disk drive of a computer, out the cable on the back, through rows of chips. Stop and look at anything you want along the way...

Fly in a human ear or eye or mouth. Do a Fantastic Voyage.

Select size of your camera (called a probe?) to determine kinds of things you see. At electron size you'll see stuff you can't see at baseball size.

Possible to combine this fast-paced, 3D, flying around idea with the 3D puzzle idea?



## SCCA: Weekend Warrior

Racing game with a difference — it's a believable fantasy, a career.

Start out as an amateur racing on a shoestring budget out of your garage. Pick your class and your race budget on starting income. Go for quick rise to top by jumping into super-competitive class or start easy, build your skill in a less competitive one where you might have an easier time racking up victories? Go for more speed, but risk ~~to~~ mechanical hiccups and more frequent and expensive maintenance?

Win enough races and acquire sponsorship (adding a business element to game). Then move into ranks of professionals — but do you start as a backmarker on a shoestring or wait until a real offer comes your way? Go for Indy lights? F3? Trans-Am? Eventually become a solid pro.

Tech: Ideally, VR helmet, steering wheel w/variable tension and a joystick/gearshift.



**TO: Anyone who'll listen...**

**FROM: Warren Spector**

**DATE: 1/16/92**

**RE: Windows games to consider...**

Here are the Windows system simulation ideas Steve and I believe are worthy of consideration. One of these warrants inclusion on this year's schedule. Please read this memo and let me know if any of these game ideas intrigue you. I'll compile the "votes" and we'll work up more detailed proposals on the top three.

In all cases, we would support modem and LAN play and, where possible, we would use digitized video footage, as we intended to do in Next Frontier.

## **WING COMMANDER GAMES**

### **FLAGSHIP 1**

A game of strategic conflict in the Wing Commander 2 universe. The player is a human or Kilrathi fleet commander maneuvering his forces so he can defeat the enemy. This is fundamentally a wargame -- a game of resource management and allocation. It may be possible to allow players who have Wing 2 to save battle data off to disk and fly missions in Wing 2-style. (Those who don't have Wing 2 would, of course, simply duke it out in whatever form we select in Flagship.) Modem/network play would allow players to team up against the Kilrathi or play human vs. Kilrathi, and so on.

### **FLAGSHIP 2**

As an alternative to the wargame described above, we could do a game of space exploration set before the events depicted in Wing Commander 1. (In essence, this would be a game that tells players how the Wing Commander universe came to be.) The player would explore the reaches of space, encountering alien races, possibly coming into conflict with them, possibly establishing trade routes, and so on.

## **REAL-WORLD GAMES**

### **KENTUCKY DERBY**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

### **FRANCHISE OWNER**

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs. You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **GANGLAND**

A game of gang warfare from the early years of the 20th century through the present day.



The player takes the part of a small-time operator in New York or Chicago. He begins with control of a small neighborhood, takes over a city and can even go national. Eventually, he becomes the head of a Mafia family a la The Godfather.

The player must decide whether to get into the bootlegging racket during Prohibition (and what to do after Prohibition is repealed). Will he kill a rival gangster or reason with him? Will he try to go legit or rat on his Mafia brothers? Will he build Las Vegas? How will he deal with the rise of drugs and the rise of Jamaican gangs (to say nothing of the Crips and the Bloods)?

Everyone's interested in the underworld. Mobsters are always in the news. Books glorifying gangsters are everywhere. The success of movies like The Godfather (I, II, and III), Wiseguys, Bugsy, etc. bodes well for the success of an underworld game. The chance to play the part of a bad guy holds undeniable appeal.

## WAR ROOM

One of the computer's greatest strengths is its ability to dole out information selectively. It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield; he'd just see a map representing it. (Imagine the British war room, from which British commanding officers conducted the Battle of Britain.)

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Sometimes, 2-3 (or even 10-20) radio messages may come in at once, from various field positions. Messages may be garbled, or misunderstood by those manning the war room phones, or plain wrong.

Based on this information and the updated map, the player deploys forces. The enemy carries out a pre-determined plan. The results are reported (again, through intelligence reports). The reports are sometimes late, sometimes sketchy. The player learns, through trial and error, that some of his field observers are more reliable than others (though no one's perfect).

The player must decide where to move reliable observers. He must decide whether to wait for more accurate reports (the longer you wait, the better the report), or whether to move quickly on sketchy information.

## ON ANOTHER TOPIC

In addition to the system simulation class above, we are to prepare the following educational game for your consideration. I suggest we build a system simulation (an educational product of the sort Gates has created) and STILL do one of several "Early Reader" games!

## EARLY READER GAMES

These could use Ultima VII technology or (better, I think) run under Windows or all under DOS. In any case, we assume the reader is the early reader literature (where



This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

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What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

### **TUNNEL WARS**

The player is a Dwarf-king (or a Mountain Man, if we want to set the game in Britannia and Richard doesn't want dwarves in Ultima). He lives deep underground. Dwarf workers build and expand tunnels, construct halls, forge weapons, mine gold and gems, etc. Other races, including dwarf bands, are also running around -- but you don't know where exactly. You can sometimes hear digging, but until one of your tunnels happens to stumble across their tunnels, you don't interact with them.

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the Wild Things Are, the entire Dr. Suess collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product (as I believe we should), we'd recreate the stories exactly in on-screen, animated sequences. All text would be recorded and digitized, if possible.

The player/reader would have the option of playing the story through straight or he/she could select simple branching options.

In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

The effort involved in something like this would be somewhat greater than a Special Ops disk but nowhere near the effort to do an Ultima or Wing Commander spin-off. However we do it, we already have the technology to do this entire game.

CD versions of these games would be a snap and the sequel possibilities are limited only by the number of children's books (which is to say, we're not limited at all). Finally, if the concept is a hit, we can generate original stories and sell the rights to a book publisher.



**TO: Anyone who'll listen...**  
**FROM: Warren Spector**  
**DATE: 1/16/92**  
**RE: Windows games to consider...**

Here are the Windows system simulation ideas Steve and I believe are worthy of consideration. One of these warrants inclusion on this year's schedule. Please read this memo and let me know if any of these game ideas intrigue you. I'll compile the "votes" and we'll work up more detailed proposals on the top three.

In all cases, we would support modem and LAN play and, where possible, we would use digitized video footage, as we intended to do in Next Frontier.

## **WING COMMANDER GAMES**

### **FLAGSHIP 1**

A game of strategic conflict in the Wing Commander 2 universe. The player is a human or Kilrathi fleet commander maneuvering his forces so he can defeat the enemy. This is fundamentally a wargame -- a game of resource management and allocation. It may be possible to allow players who have Wing 2 to save battle data off to disk and fly missions in Wing 2-style. (Those who don't have Wing 2 would, of course, simply duke it out in whatever form we select in Flagship.) Modem/network play would allow players to team up against the Kilrathi or play human vs. Kilrathi, and so on.

### **FLAGSHIP 2**

As an alternative to the wargame described above, we could do a game of space exploration set before the events depicted in Wing Commander 1. (In essence, this would be a game that tells players how the Wing Commander universe came to be.) The player would explore the reaches of space, encountering alien races, possibly coming into conflict with them, possibly establishing trade routes, and so on.

## **REAL-WORLD GAMES**

### **KENTUCKY DERBY**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

### **FRANCHISE OWNER**

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs. You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **GANGLAND**

A game of gang warfare from the early years of the 20th century through the present day.



The player takes the part of a small-time operator in New York or Chicago. He begins with control of a small neighborhood, takes over a city and can even go national. Eventually, he becomes the head of a Mafia family a la The Godfather.

The player must decide whether to get into the bootlegging racket during Prohibition (and what to do after Prohibition is repealed). Will he kill a rival gangster or reason with him? Will he try to go legit or rat on his Mafia brothers? Will he build Las Vegas? How will he deal with the rise of drugs and the rise of Jamaican gangs (to say nothing of the Crips and the Bloods)?

Everyone's interested in the underworld. Mobsters are always in the news. Books glorifying gangsters are everywhere. The success of movies like The Godfather (I, II, and III), Wiseguys, Bugsy, etc. bodes well for the success of an underworld game. The chance to play the part of a bad guy holds undeniable appeal.

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TO: Myself  
FROM: Warren Spector  
DATE: 1/24/92  
RE: Games

## UNDERWORLD (OR STRIKE) SPIN-OFFS

### ALIEN COMMANDER

This game combines Underworld technology with a Wing Commander storyline. The technology is strong and there have been very few first-person SF games (none of them successful, to my knowledge). We all know the strength of the Wing Commander trademark.

It's been over a decade since the destruction of the Tiger's Claw and a huge chunk of the old girl has been discovered in a backwater portion of the galaxy. Strange signals are being picked up from the derelict and the player has been sent to investigate.

The player's ship is mysteriously destroyed after he's dropped off on the derelict, leaving him alone, with no way to signal for help. Exploration reveals that the chunk of the Claw is remarkably well-preserved, though there's no power and the life-support systems are out. (The player must wear an armored space suit, explaining why his view is so small and also why he has no peripheral vision...And digitized speech is a breeze -- the suit warns you when there's something approaching from out of sight...)

[NEED DETAILS HERE -- WHY ARE THERE CREATURES AND PEOPLE ON BOARD?]

There are lots of creatures roaming around the ship, most of them dangerous. There are some people, too, survivors of the Claw's explosion (or children of survivors).

What the player doesn't know (and must learn) is that members of the race known as the Double Helix (introduced in the Claw Marks magazine included with Wing Commander) had infiltrated the ship before it was blown up. They've spent the last ten+ years taking over the living creatures on the ship -- most (but not all) of the people and creatures the player encounters are DH hybrids.

The DH are genetic manipulators. They survive and thrive not by reproducing, but by merging with new races. The hybrids created by the merger are shape-shifters. There's no way to tell an enemy from a friend...

[THERE SHOULD BE AT LEAST ONE WAY TO TELL, SOMETHING SUBTLE.]

As the player explores the corridors of the ship, he must get the power on, repair life-support and communications systems, figure out that things are not what they seem, avoid being taken over by the DH, etc. Also, a cadre of Kilrathi are on the way -- they've picked up the signals from the ship, too. When they get on-board, they'll be at risk of being taken over and they'll also be a risk to the player.

Only by forging an alliance with the Kilrathi can the player survive.

Finally, the player must figure out the DH big plan. [I'D BETTER FIGURE THAT OUT, TOO...] There's a big, climactic battle at the heart of the Claw's anti-matter reactor. Getting to the reactor is dangerous beyond belief because of the DH minions and because of amazing levels of radiation (or something). The whole look of the game changes as the core is approached (lots of flashing lights, dimming visions, countdown timers that show how long the player has to live before the radiation kills him, etc.)

The DH being at the core is huge and hideous and must be defeated or all mankind and Kilrathi-kind are doomed, of course.



## **MELT DOWN**

An adventure set in the Strike Commander universe, possibly a few years later. A nuclear power plant at a university goes haywire and the whole place is shut down (for months? years?). Eventually, the place cools down some and the player is contracted to go in and shut the still dangerous plant down. While there, the player has to deal with security systems that seem far more complex and deadly than necessary -- heavy, locked doors, robotic guards, remote control guns, etc.). There are also bizarre, mutated people and creatures here. Ultimately, the player learns that the university was engaged in genetic research for the government and the monsters developed in the labs are on the loose. The player must explore the university buildings, the underground steam tunnels, the sewers, and the heart of the reactor itself.

## **SYSTEM SIMULATORS**

(All new technology)

### **MASTER BUILDER**

At some time in their lives, everyone has stopped to look at a construction site. Now, instead of just watching you get to be the builder. You can build anything from a skyscraper to an Egyptian pyramid. (Suburban home, the Brooklyn Bridge, the New York subway, Austin's light rail system? Who knows?) We might also allow the demolition option.

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And TV mogul Media Mogul gives the player the chance to make waves in the world of entertainment and big business.

The game could begin in any about any era, but I'm not forgetting back in the 1890's, when the movies and radio were like more than a gleam in the eye of business and entrepreneurs around the world and newspapers were in their heyday. The scope of the game is the entire 20th century, ending over the 21st.

The player has some investments (cash) available and must select a field of endeavor (print, movies, radio-telegraphy etc). For the purposes of this discussion, we'll stick with film examples, but the same kinds of decisions apply regardless of the medium the player chooses to enter.

If, for example, he selects movies, he would pick a technology -- Edison-style peep shows with short strips of film... Mutoscope-style flip cards... etc.

Once a technology is selected, he must pick a distribution/disp. system. Will he own all of his own venues? Will he license others to show his stuff and end them films? etc.

He must decide how to promote his work -- will he publicize his stars and/or underdirectors or keep their names a secret so he doesn't have to pay them so much?

As time passes, new technology becomes available -- will he move into projection devices capable of entertaining many people at once or stick to the peep shows? Will he use the large, Edison-style cameras which require sturdiness or will he go with a Lumiere-style portable camera?

Where will he set up shop? In New York, where actors are readily available? In New Jersey, nearby and with a real scenery? In Florida or California, where the weather is better?

How will the player respond when Edison tries to monopolize the film business? When wide screen becomes available shortly after the turn of the century? When sound becomes available in the early 20s? When scandal hits? When government regulators and Wall Street money men enter the picture?

Will the player diversify into radio and/or television? When and to what degree?

How will the TV mogul deal with the introduction of cable and satellite communication?

This isn't just a dry simulation, but a dynamic, multi-media experience. The choices the player makes determine what he/she sees and hears. We'll provide little movies/TV & radio shows. Which things the player sees and hears are determined by the choices -- art or commerce? quality or quantity? If we can license REAL film/TV/radio clips, so much the better. If we can't we can always generate our own.

## WAR ROOM

To date, no one's done a computer warboard game that takes advantage of one of the computer's greatest strengths -- the ability to deal out information selectively.

It would be fairly simple to recreate the real "top of war" in a computer game. A game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield, he'd just see a map representing it. (Imagine the British war room, from which British command officers conducted the Battle of Britain.)

A "War and Peace" style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information and it's updated as it appears on your map. You decide which information to



## **MEDIA MOGUL**

Ted Turner is Time magazine's Man-of-the-Year. Robert Maxwell's death is front page news. The Japanese buy American movie studios and shockwaves ripple throughout the business world. Magazines like Premiere and Entertainment Weekly and cable television's E! channel bring media news to a huge and growing audience of film and TV fans. Media Mogul gives the player the chance to make waves in the world of entertainment and big business.

The game could begin in just about any era, but I favor beginning back in the 1890's, when the movies and radio were little more than a gleam in the eye of inventors and entrepreneurs around the world and newspapers were in their heyday. The scope of the game is the entire 20th century, spilling over into the 21st...

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The player must decide where to move reliable observers. He must decide whether to wait for more accurate reports (the longer you wait, the better the report), or whether to move quickly on sketchy information.

This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

### **MYSTERIOUS WORLD (aka MONSTER HUNTER)**

Mount expeditions to discover the truth about (or debunk) the world's oldest, most fascinating mysteries -- does the Loch Ness monster really exist? Was Charles Fort right about the "natural" phenomena he reported? Is there a Bigfoot? Did Atlantis ever exist?

### **MOMENT OF CRISIS**

You're the commander in chief of a nation that has just gone to war. Your generals will do the fighting for you (this is NOT a wargame), but you have to give them the supplies, equipment, and manpower to do the job. Your population will supply the supplies, equipment, and manpower, if you keep them happy. And there's always an election on the horizon. Ultimately, you can play for victory or peace.

### **SIM-REALITY**

Wish you had it to do over again? Wonder how the other half lives? You can start as a poor ghetto kid, a middle-class kid, or a wealthy kid. The choices you make -- about school, college, sports, business, career, family, investment, etc -- determine the course of your life.

### **FRONTIER**

This is an idea I proposed over a year ago. Response was pretty favorable at the time and I still think this is a viable idea. However, I wonder whether there's a big audience for any Old West-oriented project. In any event, submitted for your evaluation...

A simulation of the settling of the old west. The player could select a realistic approach or a John Wayne setting. What we're talking about here is a simulation of the taming of the old west (or the exploration of Africa or the settling of a planet in a distant solar system or...you get the idea).



## **Population Building**

You have to decide how many people to send across country in covered wagon trains. You decide the make-up of the families. Are you a caravan of homesteaders? Forty-Niners? Are you one guy who's going out west to ranch?

What route will you take? Northern (Oregon Trail)? Southern (Santa Fe Trail)? And what time of year will you travel?

Where will you stop? In Wisconsin? In Texas? In California? In The Pacific Northwest?

## **Activities & Goals**

What will you do when you get there? Farm? Ranch (cattle? sheep?)? Mine (gold? silver?)

Your goal is to attract people and set up a prosperous town or mining company.

Things that will signify success are: increased population, attracting mail routes or railroads, a bank, a marshal's office, getting the train to stop, a seaport (if you're near the water), cavalry fort, post offices, stockyards, etc. Ultimately you want to attract the county seat and then the state capital (because, ultimately, you want to vie for statehood).

Personal goals might be to become Mayor of your town (which you'll pretty much BE the mayor). Then, you move up to Senator, etc. OR you could strive to control the political figures (though this carries with it a completely different set of problems...)

## **Obstacles**

You have to deal with indians, bad men, droughts, flash floods, blizzards, natural predators, NPCs who compete with you (If you're the rancher, your competition is the miner, for example), nearby towns (which compete with you for resources and economic development).

# **WING COMMANDER 2 SPINOFFS**

## **TRADE COMMANDER**

You're a lone wolf with a small freighter. Your goal isn't to win a war, but to become rich. Like Han Solo, you've outfitted your ship with some weapons and a couple of techno-tricks that give you a chance of surviving in the hostile WC universe, but you're not flying a nimble fighter or megapowerful bomber -- you're piloting a space age cargo ship. You're out-maneuvered and out-gunned by just about every ship in space (at least at first...)

I envision this as a fun system simulation (like Railroad Tycoon), but from an entirely new perspective -- the first-person, real-time action of Wing Commander.

You must establish contact with suppliers and convince them you can deliver their goods faster and more reliably than your competition. Figure out which colonies require which goods and then find the trade routes that will bring you the most profit. Pick the wrong trade route and perishables may rot.

Decide whether you will deal only with humans or whether you will establish partnerships with the Kilrathi?

You decide whether to be an honest trader, working within the limits imposed by the Confed high command or a smuggler dealing in contraband, or a pirate raiding honest merchants. Your decisions in this area may bring you into conflict with human and kilrathi forces, both military and civilian. (Here's one of the areas where combat comes in -- in addition, however, you're trading in a universe at war and, inevitably, you'll find yourself in the middle of battles. Military pilots from WC and WC2 could show up in these battle missions.)



The way I see this, you start out with a one or two man ship capable of carrying a fair amount of cargo. As you become more successful, you can choose to buy bigger ships (even ships capable of carrying armed fighters for defense). Buy a bigger ship and you'll have to hire a crew (and hope you don't hire any trouble-makers or mutineers). You can even run a fleet of ships (okay, maybe just two...), but you'll have to find a captain for your other ship and hope he's honest (or, at least, takes the same approach to trade that you do...)

Contact with trading partners, hiring of crew, buying ships, adding cargo modules, etc. would all be done through interactive screens -- meeting rooms, back-alley bars, etc. (like the WC bar).

In space, you might view the world through a Star Trek-style viewscreen. This could show the 3D universe or allow you to carry on a conversation with the captain of another ship.

### **JAPANIME COMMANDER**

How about a giant, transforming robot slug-fest? There's no reason why we couldn't do a Japanese animated SF adventure. This isn't Robotech robots marching around on Earth -- it's Transformers in space.

The player is a teenager, an ace videogame player recruited by a quasi-governmental agency charged with defending the Earth against marauding alien invaders. He's young, he's green, he's cocky...and he's the best damn robot-jock we've got.

Press a button in your cockpit and trigger a specific flic that shows the transformation your button-press triggered. When you return to the cockpit, you're in a "new" ship, with new capabilities.

### **CARTOON COMMANDER**

Why not take the Commander technology and do wacky, cartoonish space adventures. We've been so serious to this point -- why not do a Duck Dodgers in the 24th-1/2 Century or a TOON-inspired Spaced Out SAPS adventure? How about gigantic plush toys attacking an unsuspecting planet?

Well, it'd be different...

## **ULTIMA VII SPINOFFS**

### **GUMSHOE**

Ultima technology has always been perfect for detective stories -- in Ultima AND in the world of criminal investigation, you talk to people, hoping they'll give you clues that will allow you to solve a mystery. In both, you must track down hidden or lost items and glean their significance. In both, you must take the knowledge and items gained and solve a puzzle.

I envision an urban setting. The player is a two-bit investigator in the Mike Hammer or Travis McGee style. A woman in distress comes to him with a seemingly simple request for aid. During the course of his investigation, the player picks up hints of other cases which he can pursue or not, as he wishes.

As he follows up on some of his new leads and solves the small cases he chooses to take, he begins to detect a pattern. Many (though NOT all) of the cases seem connected. Eventually, if the player picks up on the connections and chooses to follow them up, he stumbles upon a major political cover-up that, if revealed, could shake the very foundations of the American government.

Does he continue? Can he be bought off? Can he solve the case before he's killed or the government topples?



There are more mystery novels sold each year than any other form of literature. The market is adult, men and women. Action-oriented mysteries are a staple of film and television. Computer games are just beginning to tap into this market. The success of the Police Quest series and the Carmen Sandiego games (along with a new European entry, the name of which escapes me) shows that there's a market for this sort of game and no one has ever done it in Ultima style.

## MISCELLANEOUS

### PUBLIC DOMAIN GAMES

A collection of simple, public domain games running under Windows -- Nine Men's Morris, Cathedral, Oh-Wah-Ri, etc. Graphics would be ORIGIN-quality, putting us a notch above Microsoft's Entertainment Pack and shareware Windows games. We could also try to develop small, action-oriented puzzle games like Tetris.

### EARLY READER GAMES

These could use Ultima VII technology or (better, I think) run under Windows or just under DOS. In any case, we acquire the rights to classic early reader literature (Where the Wild Things Are, the entire Dr. Suess collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typeical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product, we'd recreate the stories exactly in on-screen, animated flics. All text would be digitized, if possible. The player/reader would have the option of playing the story through straight or he/she could select simple branching options. In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

### ROACH MOTEL

Yes, the game idea that will not die!

The player takes the role of a cockroach struggling for survival in a cruel world of bug sprays, roach motels, smashing newspapers, stomping feet, playful cats, and other insects.

The game is presented in side-view, with each screen having multiple levels upon which the player can move his roach. OR we could do this in Underworld/Strike technology and do the game FROM THE PERSPECTIVE OF A COCKROACH!

The levels are as follows:

1. The Hatchery: A pantry in which the player is born (along with as many other little roaches as we can squeeze on the screen). Here, the player must eat enough crumbs to survive and grow as big and strong as he can. If he eats enough, he grows wings and can then fly into...
2. The Kitchen: Here, the player first encounters humans (in the form of huge fly-swatters).
3. The Bedroom: A fuzzy rug makes the going slow. After a while, the player comes upon a sheer white cliff face. Climbing up it, he reaches a plateau. Continuing along atop this plateau, the terrain undulates and rolls, occasionally moving with earthquake-like intensity. (This is a bed, and there's a guy sleeping in it.) Eventually, the



player gets to the sleeping man's head (surprise! recognition! laughter!). The guy's snoring to beat the band, mouth open wide. There are crumbs on his beard and moustache which must be gathered, but don't get sucked into his mouth or blown off the bed!

4. The Bathroom: The sink's full of soapy, brackish water and the player has to cross it. Maybe he can swim, but there are big risks. He can leap from soap chip to soap chip. His object is to unplug the stopper and get sucked down the drain into...

5. The Plumbing: A winding narrow passage allows little room for maneuvering. Encounter anything down here and there's no turning back, nowhere to run.

6. The Great Outdoors: The plumbing dumps the player into a field. Here there be tigers...or, at least, house cats. Also spiders, mice, rainstorms, and other dangers.

7. Roach Wars: In a new house, the player must confront and defeat the native roaches.

8. The Hatchery II: Having survived all of the earlier levels, the player finds himself (or is it herself?) back in a pantry giving birth to a litter (or whatever you call it) of roaches. As in *Altered Beast*, the game recycles, a little faster, a little harder, a little more intelligently.

- More levels (and more detail about each level) to come.

- Every few levels the player gets a Roach Motel round -- a bonus round where he can get lots of points. Each Motel must be navigated in a different way. In fact, the perspective might even change here.

- Death should be really disgusting (squished bugs, kicking legs, etc.)

- Characters are cute, but gross, bugs (like the old Raid commercials). If we want, we can call the "hero" roach Riki the Roach, giving us a trademarkable name and character we can spin off in other games or, even, other media.

- We can end with mankind completely frustrated by roaches. All attempts to kill the insects have failed, leaving just one alternative -- an atomic bomb. But even this doesn't work, and the final endgame screen shows thousands of roaches, the winning player's progeny, hatching.

#### WHY ROACH MOTEL?

It's unique. It's gross. It's kind of a funny/odd idea. It's a simple, easily explained idea that resonates for everyone -- nobody's going to see the game and react neutrally.

Every time a mom reacts with disgust, her 12 year old son is going to want the game a little more.



Mike H.

TO: Anyone who'll listen...

FROM: Warren Spector

DATE: 1/16/92

RE: Windows games to consider...

~~As you can~~ I lean  
toward real-world  
games.

Here are the Windows system simulation ideas Steve and I believe are worthy of consideration. One of these warrants inclusion on this year's schedule. Please read this memo and let me know if any of these game ideas intrigue you. I'll compile the "votes" and we'll work up more detailed proposals on the top three.

In all cases, we would support modem and LAN play and, where possible, we would use digitized video footage, as we intended to do in Next Frontier.

## WING COMMANDER GAMES

### FLAGSHIP 1

A game of strategic conflict in the Wing Commander 2 universe. The player is a human or Kilrathi fleet commander maneuvering his forces so he can defeat the enemy. This is fundamentally a wargame -- a game of resource management and allocation. It may be possible to allow players who have Wing 2 to save battle data off to disk and fly missions in Wing 2-style. (Those who don't have Wing 2 would, of course, simply duke it out in whatever form we select in Flagship.) Modem/network play would allow players to team up against the Kilrathi or play human vs. Kilrathi, and so on.

I like the  
appeal of the  
Wing Commander  
subject, but I'm  
worried about  
burning out  
consumers  
with too  
much of it.

### FLAGSHIP 2

As an alternative to the wargame described above, we could do a game of space exploration set before the events depicted in Wing Commander 1. (In essence, this would be a game that tells players how the Wing Commander universe came to be.) The player would explore the reaches of space, encountering alien races, possibly coming into conflict with them, possibly establishing trade routes, and so on.

## REAL-WORLD GAMES

### KENTUCKY DERBY

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

### FRANCHISE OWNER

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs. You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### GANGLAND

A game of gang warfare from the early years of the 20th century through the present day.

I remember  
some games  
that were  
similar,  
didn't do  
very well from  
a sales  
standpoint.  
That might  
have been due  
to implementation  
instead of  
subject matter.



The player takes the part of a small-time operator in New York or Chicago. He begins with control of a small neighborhood, takes over a city and can even go national. Eventually, he becomes the head of a Mafia family a la The Godfather.

The player must decide whether to get into the bootlegging racket during Prohibition (and what to do after Prohibition is repealed). Will he kill a rival gangster or reason with him? Will he try to go legit or rat on his Mafia brothers? Will he build Las Vegas? How will he deal with the rise of drugs and the rise of Jamaican gangs (to say nothing of the Crips and the Bloods)?

Everyone's interested in the underworld. Mobsters are always in the news. Books glorifying gangsters are everywhere. The success of movies like The Godfather (I, II, and III), Wiseguys, Bugsy, etc. bodes well for the success of an underworld game. The chance to play the part of a bad guy holds undeniable appeal.

### WAR ROOM

One of the computer's greatest strengths is its ability to dole out information selectively. It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield; he'd just see a map representing it. (Imagine the British war room, from which British commanding officers conducted the Battle of Britain.)

A Hypercard-style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information and the situation as it appears on your map. You decide which information is accurate (this is used to update the map) and which is false or misleading (these messages are discarded).

Sometimes, 2-3 (or even 10-20) radio messages may come in at once, from various field positions. Messages may be garbled, or misunderstood by those manning the war room phones, or plain wrong.

Based on this information and the updated map, the player deploys forces. The enemy carries out a pre-determined plan. The results are reported (again, through intelligence reports). The reports are sometimes late, sometimes sketchy. The player learns, through trial and error, that some of his field observers are more reliable than others (though no one's perfect).

The player must decide where to move reliable observers. He must decide whether to wait for more accurate reports (the longer you wait, the better the report), or whether to move quickly on sketchy information.

I like this by itself as a focus for the game. While the drug gang issues have been in the news for a while, this issue is only going to become more controversial in the future. In a game I'd want to be the good guy though.

How about using one of the above styles in a game where the player attempts to take out the Medellin drug cartel (and others) in Columbia? Obviously, the background would have to be established that the U.S. & Colombian governments had reached some sort of cooperative agreement. The game could incorporate intelligence reports/briefings, news bulletins, undercover operatives, <sup>deployment of</sup> special forces teams, negotiations through diplomatic channels, etc.



This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

We would probably apply this approach to the Wing Commander universe, but we could just as easily do a Britannian battle game.

## **FANTASY GAMES**

### **THE MAD SCIENTIST SIMULATOR**

A light-hearted, humorous game in the style of Lemmings. The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

First, he builds his castle. (In the introductory game, we'll provide some basic designs and let the player modify them...) Does he build an underground dungeon? Does he put a huge lightning rod on top? Does he build on the site of an ancient Indian burial ground?

Then, he adds traps designed to catch potential experimental subjects or kill intruders (the pesky good guys who always seem to be lurking about).

What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

### **TUNNEL WARS**

The player is a Dwarf-king (or a Mountain Man, if we want to set the game in Britannia and Richard doesn't want dwarves in Ultima). He lives deep underground. Dwarf workers build and expand tunnels, construct halls, forge weapons, mine gold and gems, etc. Other races, including dwarf bands, are also running around -- but you don't know where exactly. You can sometimes hear digging, but until one of your tunnels happens to stumble across their tunnels, you don't interact with them.

## **ON ANOTHER TOPIC...**

In addition to the system simulation ideas above, I'd like to present the following educational game for your consideration. I believe we could do a system simulation (or an edutainment product of the sort Dallas has proposed) and STILL do one or several "Early Reader" games:

### **EARLY READER GAMES**

These could use Ultima VII technology or (better, I think) run under Windows or just under DOS. In any case, we acquire the rights to classic early reader literature (Where



*how about Maurice Sendek?*

the Wild Things Are, the entire Dr. Suess collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product (as I believe we should), we'd recreate the stories exactly in on-screen, animated sequences. All text would be recorded and digitized, if possible.

The player/reader would have the option of playing the story through straight or he/she could select simple branching options.

In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

The effort involved in something like this would be somewhat greater than a Special Ops disk but nowhere near the effort to do an Ultima or Wing Commander spin-off. However we do it, we already have the technology to do this entire game.

CD versions of these games would be a snap and the sequel possibilities are limited only by the number of children's books (which is to say, we're not limited at all).

Finally, if the concept is a hit, we can generate original stories and sell the rights to a book publisher.



TO: Anyone who'll listen...  
FROM: Warren "Small voice in the wilderness" Spector  
DATE: 1/15/92  
RE: Games I want ORIGIN to consider...

## UNDERWORLD (OR STRIKE) SPIN-OFFS

### ALIEN COMMANDER

Look -- I think this is the hottest game idea I've come up with in years. We really should find a way to take some cool new (finished) technology and tie it in with our hottest property. How can it miss?

This game combines Underworld technology with a Wing Commander storyline. The technology is strong and there have been very few first-person SF games (none of them successful, to my knowledge). We all know the strength of the Wing Commander trademark.

It's been over a decade since the destruction of the Tiger's Claw and a huge chunk of the old girl has been discovered in a backwater portion of the galaxy. Strange signals are being picked up from the derelict and the player has been sent to investigate.

The player's ship is mysteriously destroyed after he's dropped off on the derelict, leaving him alone, with no way to signal for help. Exploration reveals that the chunk of the Claw is remarkably well-preserved, though there's no power and the life-support systems are out. (The player must wear an armored space suit, explaining why his view is so small and also why he has no peripheral vision...And digitized speech is a breeze -- the suit warns you when there's something approaching from out of sight...)

[NEED DETAILS HERE -- WHY ARE THERE CREATURES AND PEOPLE ON BOARD?]

There are lots of creatures roaming around the ship, most of them dangerous. There are some people, too, survivors of the Claw's explosion (or children of survivors).

What the player doesn't know (and must learn) is that members of the race known as the Double Helix (introduced in the Claw Marks magazine included with Wing Commander) had infiltrated the ship before it was blown up. They've spent the last ten+ years taking over the living creatures on the ship -- most (but not all) of the people and creatures the player encounters are DH hybrids.

The DH are genetic manipulators. They survive and thrive not by reproducing, but by merging with new races. The hybrids created by the merger are shape-shifters. There's no way to tell an enemy from a friend...

[THERE SHOULD BE AT LEAST ONE WAY TO TELL, SOMETHING SUBTLE.]

As the player explores the corridors of the ship, he must get the power on, repair life-support and communications systems, figure out that things are not what they seem, avoid being taken over by the DH, etc. Also, a cadre of Kilrathi are on the way -- they've picked up the signals from the ship, too. When they get on-board, they'll be at risk of being taken over and they'll also be a risk to the player.

Only by forging an alliance with the Kilrathi can the player survive.

Finally, the player must figure out the DH big plan. [I'D BETTER FIGURE THAT OUT, TOO...] There's a big, climactic battle at the heart of the Claw's anti-matter reactor. Getting to the reactor is dangerous beyond belief because of the DH minions and because of amazing levels of radiation (or something). The whole look of the game changes as the core is approached (lots of flashing lights, dimming visions, countdown timers that show how long the player has to live before the radiation kills him, etc.)

The DH being at the core is huge and hideous and must be defeated or all mankind and Kilrathi-kind are doomed, of course.

### MELT DOWN



An adventure set in the Strike Commander universe, possibly a few years later. A nuclear power plant at a university goes haywire and the whole place is shut down (for months? years?). Eventually, the place cools down some and the player is contracted to go in and shut the still dangerous plant down. While there, the player has to deal with security systems that seem far more complex and deadly than necessary -- heavy, locked doors, robotic guards, remote control guns, etc.). There are also bizarre, mutated people and creatures here. Ultimately, the player learns that the university was engaged in genetic research for the government and the monsters developed in the labs are on the loose. The player must explore the university buildings, the underground steam tunnels, the sewers, and the heart of the reactor itself.

## **SYSTEM SIMULATORS**

(All new technology)

### **KENTUCKY DERBY**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

### **FRANCHISE OWNER**

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs. You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **THE MAD SCIENTIST SIMULATOR**

A light-hearted, humorous game in the style of Lemmings. The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

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Then, he adds traps designed to catch potential experimental subjects or kill intruders (the pesky good guys who always seem to be lurking about).

What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

### **MEDIA MOGUL**

Ted Turner is Time magazine's Man-of-the-Year. Robert Maxwell's death is front



page news. The Japanese buy American movie studios and shockwaves ripple throughout the business world. Magazines like *Premiere* and *Entertainment Weekly* and cable television's E! channel bring media news to a huge and growing audience of film and TV fans. Media Mogul gives the player the chance to make waves in the world of entertainment and big business.

The game could begin in just about any era, but I favor beginning back in the 1890's, when the movies and radio were little more than a gleam in the eye of inventors and entrepreneurs around the world and newspapers were in their heyday. The scope of the game is the entire 20th century, spilling over into the 21st...

The player has some investment funds available and must select a field of endeavor (print, movies, radio-telegraphy, etc). For the purposes of this discussion, we'll stick with film examples, but the same kinds of decisions apply regardless of the medium the player chooses to enter:

If, for example, he selects movies, he would pick a technology -- Edison-style peep shows with short strips of film...Mutoscope-style flip cards...etc.

Once a technology is selected, he must pick a distribution/exhibition system. Will he own all of his own venues? Will he license others to show his stuff and sell them films? etc.

He must decide how to promote his work -- will he publicize his stars and/or writers/directors or keep their names a secret so he doesn't have to pay them as much?

As time passes, new technology becomes available -- will he move into projection devices capable of entertaining many people at once or stick to the peep shows? Will he use the huge, Edison-style cameras which require studios or will he go with a Lumiere-style portable camera?

Where will he set up shop? In New York, where actors are readily available? In New Jersey, nearby and with varied scenery? In Florida or California, where the weather is better?

How will the player respond when Edison tries to monopolize the film business? When wide screen becomes available shortly after the turn of the century? When sound becomes available in the early-20s? When scandal hits? When government regulators and Wall Street money men enter the picture?

Will the player diversify into radio and/or television? When and to what degree?

How will the TV mogul deal with the introduction of cable and satellite communication?

This isn't just a dry simulation, but a dynamic, multi-media experience. The choices the player makes determine what he/she sees and hears. We'll provide little movies/TV & radio shows. Which things the player sees and hears are determined by the choices -- art or commerce? quality or quantity? If we can license REAL film/TV/radio clips, so much the better. If we can't we can always generate our own...

## WAR ROOM

To date, no one's done a computer war/board game that takes advantage of one of the computer's greatest strengths -- the ability to dole out information selectively.

It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield, he'd just see a map representing it. (Imagine the British war room, from which British commanding officers conducted the Battle of Britain.)

A Hypercard-style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information and the situation as it appears on your map. You decide which information is accurate (this is used to update the map) and which is false or misleading (these messages are discarded).



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The player must decide where to move reliable observers. He must decide whether to wait for more accurate reports (the longer you wait, the better the report), or whether to move quickly on sketchy information.

#### MYSTICIOUS WORLD (aka MONSTER HUNTER)

about expeditions to discover the truth about (or debunk) the world's most mysterious and most fascinating mysteries -- does the Loch Ness monster really exist? Was Columbus right about the "natural" phenomena he reported? Is there a "ghost"? Can monsters exist?

#### MOMENT OF CRISIS

You're the commander in chief of a nation that has just gone to war. Your generals will do the fighting for you. (This is NOT a wargame), but you have to manage the supplies, equipment, and manpower to do the job. Your population will supply the supplies, equipment, and manpower, if you keep them happy. And there's always an election on the horizon. Ultimately, you can play for victory or peace.

#### SIM-REALITY

Wish you had it in to do over again? Wonder how the other half lives? You can live as a poor ghetto kid, a middle-class kid, or a wealthy kid. The choices you make -- about school, college, career, family, etc. -- will determine the course of your life.

#### FRONTIER

This is an idea I proposed over a year ago. Response was pretty favorable at the time and I still think this is a viable idea. However, I wonder whether this could be a platform for any CAI West-oriented project. In any event, submitted for your attention.

A simulation of the settling of the old west. The player could select a specific approach or a whole western policy. What we're talking about here is a simulation of the settling of the old west by the exploration of Africa or the settling of a desert in a desert order system or... you get the idea!

#### Population Building

You have to decide how many people to send across country in covered wagons. You decide the makeup of the families. Are you a capitalist or humanitarian? Forty-famers? Are you one of the whole going out west to ranch?

What route will you take? Northern (Oregon Trail)? Southern (Santa Fe Trail)? And what time of year will you leave?

Where will you stop? In Wisconsin? In Texas? In California? In the Pacific Northwest?

#### Activities & Goals

What will you do when you get there? Farm? Ranch (cattle? sheep?)? Mine (gold? silver?)

Your goal is to attract people and set up a prosperous town or mining company. Things that will attract people are increased population, attracting mail routes



This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

### **MYSTERIOUS WORLD (aka MONSTER HUNTER)**

Mount expeditions to discover the truth about (or debunk) the world's oldest, most fascinating mysteries -- does the Loch Ness monster really exist? Was Charles Fort right about the "natural" phenomena he reported? Is there a Bigfoot? Did Atlantis ever exist?

### **MOMENT OF CRISIS**

You're the commander in chief of a nation that has just gone to war. Your generals will do the fighting for you (this is NOT a wargame), but you have to give them the supplies, equipment, and manpower to do the job. Your population will supply the supplies, equipment, and manpower, if you keep them happy. And there's always an election on the horizon. Ultimately, you can play for victory or peace.

### **SIM-REALITY**

Wish you had it to do over again? Wonder how the other half lives? You can start as a poor ghetto kid, a middle-class kid, or a wealthy kid. The choices you make -- about school, college, sports, business, career, family, investment, etc -- determine the course of your life.

### **FRONTIER**

This is an idea I proposed over a year ago. Response was pretty favorable at the time and I still think this is a viable idea. However, I wonder whether there's a big audience for any Old West-oriented project. In any event, submitted for your evaluation...

A simulation of the settling of the old west. The player could select a realistic approach or a John Wayne setting. What we're talking about here is a simulation of the taming of the old west (or the exploration of Africa or the settling of a planet in a distant solar system or...you get the idea).

### **Population Building**

You have to decide how many people to send across country in covered wagon trains. You decide the make-up of the families. Are you a caravan of homesteaders? Forty-Niners? Are you one guy who's going out west to ranch?

What route will you take? Northern (Oregon Trail)? Southern (Santa Fe Trail)? And what time of year will you travel?

Where will you stop? In Wisconsin? In Texas? In California? In The Pacific Northwest?

### **Activities & Goals**

What will you do when you get there? Farm? Ranch (cattle? sheep?)? Mine (gold? silver?)

Your goal is to attract people and set up a prosperous town or mining company.

Things that will signify success are: increased population, attracting mail routes



or railroads, a bank, a marshall's office, getting the train to stop, a seaport (if you're near the water), cavalry fort, post offices, stockyards, etc. Ultimately you want to attract the county seat and then the state capital (because, ultimately, you want to vie for the statehood).

Personal goals might be to become Mayor of your town (which you'll pretty much BE the mayor). Then, you move up to Senator, etc. OR you could strive to control the political figures (though this carries with it a completely different set of problems...)

### **Obstacles**

You have to deal with indians, bad men, droughts, flash floods, blizzards, natural predators, NPCs who compete with you (If you're the rancher, your competition is the miner, for example), nearby towns (which compete with you for resources and economic development).

## **WING COMMANDER 2 SPINOFFS**

### **TRADE COMMANDER**

You're a lone wolf with a small freighter. Your goal isn't to win a war, but to become rich. Like Han Solo, you've outfitted your ship with some weapons and a couple of techno-tricks that give you a chance of surviving in the hostile WC universe, but you're not flying a nimble fighter or megapowerful bomber -- you're piloting a space age cargo ship. You're out-maneuvered and out-gunned by just about every ship in space (at least at first...)

I envision this as a fun system simulation (like Railroad Tycoon), but from an entirely new perspective -- the first-person, real-time action of Wing Commander.

You must establish contact with suppliers and convince them you can deliver their goods faster and more reliably than your competition. Figure out which colonies require which goods and then find the trade routes that will bring you the most profit. Pick the wrong trade route and perishables may rot.

Decide whether you will deal only with humans or whether you will establish partnerships with the Kilrathi?

You decide whether to be an honest trader, working within the limits imposed by the Confed high command or a smuggler dealing in contraband, or a pirate raiding honest merchants. Your decisions in this area may bring you into conflict with human and kilrathi forces, both military and civilian. (Here's one of the areas where combat comes in -- in addition, however, you're trading in a universe at war and, inevitably, you'll find yourself in the middle of battles. Military pilots from WC and WC2 could show up in these battle missions.)

The way I see this, you start out with a one or two man ship capable of carrying a fair amount of cargo. As you become more successful, you can choose to buy bigger ships (even ships capable of carrying armed fighters for defense). Buy a bigger ship and you'll have to hire a crew (and hope you don't hire any trouble-makers or mutineers). You can even run a fleet of ships (okay, maybe just two...), but you'll have to find a captain for your other ship and hope he's honest (or, at least, takes the same approach to trade that you do...)

Contact with trading partners, hiring of crew, buying ships, adding cargo modules, etc. would all be done through interactive screens -- meeting rooms, back-alley bars, etc. (like the WC bar).

In space, you might view the world through a Star Trek-style viewscreen. This could show the 3D universe or allow you to carry on a conversation with the captain of another ship.

### **JAPANIME COMMANDER**



or railroads, a bank, a marshall's office, getting the train to stop, a seaport (if you're near the water), cavalry fort, post offices, stockyards, etc. Ultimately you want to attract the county seat and then the state capital (because, ultimately, you want to vie for the statehood).

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Decide whether you will deal only with humans or whether you will establish partnerships with the Kilrathi?

You decide whether to be an honest trader, working within the limits imposed by the Confed high command or a smuggler, dealing in contraband and raiding honest merchants. Your decisions in this area will lead you into a life of a mercenary, a man and kilrathi forces, both military and civilian. (The mercenary life is a dangerous one -- in addition, however, you're trading in the middle of battles. Military missions.)

The way I see it, you need a fair amount of cargo ships (even ships carrying cargo you'll have to hire). You can even run a ship as captain for your own cargo to trade that way.

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How about a giant, transforming robot slug-fest? There's no reason why we couldn't do a Japanese animated SF adventure. This isn't Robotech robots marching around on Earth -- it's Transformers in space.

The player is a teenager, an ace videogame player recruited by a quasi-governmental agency charged with defending the Earth against marauding alien invaders. He's young, he's green, he's cocky...and he's the best damn robot-jock we've got.

Press a button in your cockpit and trigger a specific flic that shows the transformation your button-press triggered. When you return to the cockpit, you're in a "new" ship, with new capabilities.

### **CARTOON COMMANDER**

Why not take the Commander technology and do wacky, cartoonish space adventures. We've been so serious to this point -- why not do a Duck Dodgers in the 24th-1/2 Century or a TOON-inspired Spaced Out SAPS adventure? How about gigantic plush toys attacking an unsuspecting planet?

Well, it'd be different...

## **ULTIMA VII SPINOFFS**

### **GUMSHOE**

Ultima technology has always been perfect for detective stories -- in Ultima AND in the world of criminal investigation, you talk to people, hoping they'll give you clues that will allow you to solve a mystery. In both, you must track down hidden or lost items and glean their significance. In both, you must take the knowledge and items gained and solve a puzzle.

I envision an urban setting. The player is a two-bit investigator in the Mike Hammer or Travis McGee style. A woman in distress comes to him with a seemingly simple request for aid. During the course of his investigation, the player picks up hints of other cases which he can pursue or not, as he wishes.

As he follows up on some of his new leads and solves the small cases he chooses to take, he begins to detect a pattern. Many (though NOT all) of the cases seem connected. Eventually, if the player picks up on the connections and chooses to follow them up, he stumbles upon a major political cover-up that, if revealed, could shake the very foundations of the American government.

Does he continue? Can he be bought off? Can he solve the case before he's killed or the government topples?

There are more mystery novels sold each year than any other form of literature. The market is adult, men and women. Action-oriented mysteries are a staple of film and television. Computer games are just beginning to tap into this market. The success of the Police Quest series and the Carmen Sandiego games (along with a new European entry, the name of which escapes me) shows that there's a market for this sort of game and no one has ever done it in Ultima style.



## MISCELLANEOUS

### PUBLIC DOMAIN GAMES

A collection of simple, public domain games running under Windows -- Nine Men's Morris, Cathedral, Oh-Wah-Ri, etc. Graphics would be ORIGIN-quality, putting us a notch above Microsoft's Entertainment Pack and shareware Windows games. We could also try to develop small, action-oriented puzzle games like Tetris.

### EARLY READER GAMES

These could use Ultima VII technology or (better, I think) run under Windows. In either case, we acquire the rights to classic early reader literature (Where the Wild Things Are, the entire Dr. Suess collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typeical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product, we'd recreate the stories exactly in on-screen, animated flics. All text would be digitized, if possible. The player/reader would have the option of playing the story through straight or he/she could select simple branching options. In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

### ROACH MOTEL — Underworld technology?

Yes, the game idea that will not die!

The player takes the role of a cockroach struggling for survival in a cruel world of bug sprays, roach motels, smashing newspapers, stomping feet, playful cats, and other insects.

The game is presented in side-view, with each screen having multiple levels upon which the player can move his roach.

The levels are as follows:

1. The Hatchery: A pantry in which the player is born (along with as many other little roaches as we can squeeze on the screen). Here, the player must eat enough crumbs to survive and grow as big and strong as he can. If he eats enough, he grows wings and can then fly into...
2. The Kitchen: Here, the player first encounters humans (in the form of huge fly-swatters).
3. The Bedroom: A fuzzy rug makes the going slow. After a while, the player comes upon a sheer white cliff face. Climbing up it, he reaches a plateau. Continuing along atop this plateau, the terrain undulates and rolls, occasionally moving with earthquake-like intensity. (This is a bed, and there's a guy sleeping in it.) Eventually, the player gets to the sleeping man's head (surprise! recognition! laughter!). The guy's snoring to beat the band, mouth open wide. There are crumbs on his beard and moustache which must be gathered, but don't get sucked into his mouth or blown off the bed!
4. The Bathroom: The sink's full of soapy, brackish water and the player has to cross it. Maybe he can swim, but there are big risks. He can leap from soap chip to soap chip. His object is to unplug the stopper and get sucked down the drain into...
5. The Plumbing: A winding narrow passage allows little room for maneuvering.



Encounter anything down here and there's no turning back, nowhere to run.

6. The Great Outdoors: The plumbing dumps the player into a field. Here there be tigers...or, at least, house cats. Also spiders, mice, rainstorms, and other dangers.

7. Roach Wars: In a new house, the player must confront and defeat the native roaches.

8. The Hatchery II: Having survived all of the earlier levels, the player finds himself (or is it herself?) back in a pantry giving birth to a litter (or whatever you call it) of roaches. As in *Altered Beast*, the game recycles, a little faster, a little harder, a little more intelligently.

- More levels (and more detail about each level) to come.

- Every few levels the player gets a Roach Motel round -- a bonus round where he can get lots of points. Each Motel must be navigated in a different way. In fact, the perspective might even change here.

- Death should be really disgusting (squished bugs, kicking legs, etc.)

- Characters are cute, but gross, bugs (like the old *Raid* commercials). If we want, we can call the "hero" roach Riki the Roach, giving us a trademarkable name and character we can spin off in other games or, even, other media.

- We can end with mankind completely frustrated by roaches. All attempts to kill the insects have failed, leaving just one alternative -- an atomic bomb. But even this doesn't work, and the final endgame screen shows thousands of roaches, the winning player's progeny, hatching.

#### WHY ROACH MOTEL?

It's unique. It's gross. It's kind of a funny/odd idea. It's a simple, easily explained idea that resonates for everyone -- nobody's going to see the game and react neutrally.

Every time a mom reacts with disgust, her 12 year old son is going to want the game a little more.



# WARREN SPECTOR'S BIG BOOK OF GAME IDEAS

6/10/92

## UNDERWORLD SPIN-OFFS

### ALIEN COMMANDER

This game combines Underworld technology with a Wing Commander storyline. The technology is strong and there have been very few first-person SF games (none of them successful, to my knowledge). We all know the strength of the Wing Commander trademark.

It's been over a decade since the destruction of the Tiger's Claw and a huge chunk of the old girl has been discovered in a backwater portion of the galaxy. Strange signals are being picked up from the derelict and the player has been sent to investigate.

The player's ship is mysteriously destroyed after he's dropped off on the derelict, leaving him alone, with no way to signal for help. Exploration reveals that the chunk of the Claw is remarkably well-preserved, though there's no power and the life-support systems are out. (The player must wear an armored space suit, explaining why his view is so small and also why he has no peripheral vision...And digitized speech is a breeze -- the suit warns you when there's something approaching from out of sight...)

There are lots of creatures roaming around the ship, most of them dangerous. There are some people, too, survivors of the Claw's explosion (or children of survivors).

What the player doesn't know (and must learn) is that members of the race known as the Double Helix (introduced in the Claw Marks magazine included with Wing Commander) had infiltrated the ship before it was blown up. They've spent the last ten+ years taking over the living creatures on the ship -- most (but not all) of the people and creatures the player encounters are DH hybrids.

The DH are genetic manipulators. They survive and thrive not by reproducing, but by merging with new races. The hybrids created by the merger are shape-shifters. It's very difficult to tell an enemy from a friend...

As the player explores the corridors of the ship, he must get the power on, repair life-support and communications systems, figure out that things are not what they seem, avoid being taken over by the DH, etc. Also, a cadre of Kilrathi are on the way -- they've picked up the signals from the ship, too. When they get on-board, they'll be at risk of being taken over and they'll also be a risk to the player.

Only by forging an alliance with the Kilrathi can the player survive.

Finally, the player must figure out the DH big plan. There's a big, climactic battle at the heart of the Claw's anti-matter reactor. Getting to the reactor is dangerous beyond belief because of the DH minions and because of amazing levels of radiation (or something). The whole look of the game changes as the core is approached (lots of flashing lights, dimming visions, countdown timers that show how long the player has to live before the radiation kills him, etc.)

The DH being at the core is huge and hideous and must be defeated or all mankind and Kilrathi-kind are doomed, of course.

### MELT DOWN

An adventure set in the Strike Commander universe, possibly a few years later. A nuclear power plant at a university goes haywire and the whole place is shut down (for months? years?). Eventually, the place cools down some and the player is contracted to go in and shut the still dangerous plant down. While there, the player has to deal with security systems that seem far more complex and deadly than necessary -- heavy, locked doors, robotic guards, remote control guns, etc.). There are also bizarre, mutated people and creatures here. Ultimately, the player learns that the university was engaged in genetic research for the government and the monsters developed in the labs are on the loose. The player must explore the university buildings, the underground steam tunnels, the sewers, and the heart of the reactor itself.



## SYSTEM SIMULATORS

### DERBY WINNER

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. give this simulation a unique feel. Another key feature of the game is an unprecedented level of player choice: The player selects the kind of game he or she wants to play, automating whatever aspects of play don't appeal to him or her. There are three major elements to the game, any (or all) of which can be automated:

The first is a breeding game in which the player attends horse auctions, buys and sells horses or stud services in an attempt to make money and breed championship calibre racing horses. A basic understanding of genetics and economics would help the player (and any who didn't have such an understanding would acquire it through play).

The second element of the game is a betting/handicapping game here the player goes to the track, checks out the odds on various horses in various races under various conditions and decides how much money to bet on which horses. The game could provide a crash course in sports handicapping.

The third element is an action-oriented jockey game where the player actually races the horse, deciding when to make a move, whether to go to the outside of the track or the inside, when to use the whip, etc.

I'm not sure we REALLY want to do what I'm about to suggest, but we COULD try for a Daily Racing Form license...

### THE MAD SCIENTIST SIMULATOR

A light-hearted, humorous game combining the most appealing aspects of Lemmings and Sim City. The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

First, he builds his castle. (In the introductory game, we'll provide some basic designs and let the player modify them...) Does he build an underground dungeon? Does he put a huge lightning rod on top? Does he build on the site of an ancient indian burial ground?

Then, he adds traps designed to catch potential experimental subjects or kill intruders (the pesky good guys who always seem to be lurking about).

What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

### GENETIC ENGINEERS

Manipulate genes to create new strains of plants, creatures, etc. Respond to specific needs and achieve desired results (everything from disease-resistant plants to creatures capable of surviving on Mars).

You can create designer species to-order or creature stuff on your own (a living Erector-set...).

### MASTER BUILDER

At some time in their lives, everyone has stopped to look at a construction site. Now, instead of just watching you get to be the builder. You can build anything from a skyscraper to an Egyptian pyramid. (Suburban home, the Brooklyn Bridge, the New York subway, Austin's light rail system? Who knows?) We might also allow the demolition option.



## WING COMMANDER 2 (OR STRIKE) SPINOFFS

### CARTOON COMMANDER

Why not take the Commander technology and do wacky, cartoonish space adventures. We've been so serious to this point -- why not do a Duck Dodgers in the 24th-1/2 Century or a TOON-inspired Spaced Out SAPS adventure? How about gigantic plush toys attacking an unsuspecting planet?

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### JAPANIME COMMANDER

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The player is a teenager, an ace videogame player recruited by a quasi-governmental agency charged with defending the Earth against marauding alien invaders. He's young, he's green, he's cocky...and he's the best damn robot-jock we've got.

Press a button in your cockpit and trigger a specific flic that shows the transformation your button-press triggered. When you return to the cockpit, you're in a "new" ship, with new capabilities.

## MISCELLANEOUS

### CARTOON MAYHEM

A cinematic cartoon game designed to capitalize on the popularity of shows like Ren & Stimpy, The Simpsons, and perennial favorites from Warner Brothers and Walt Disney.

Players watch brief snippets of a cartoon. When a decision point is reached, the action freezes (in the beginners game -- in the advanced game, the action could continue along a predetermined path until and unless the player makes a choice) and a mouse cursor appears. Right-clicking changes the cursor shape. We determine what the shapes (and therefore the available choices/outcomes) are. Left click when the cursor is the shape of the object or action you want your character to perform and the action begins again, with the selected object determining which branch the story follows.

For example, the scene might involve a rabbit (the player's character) chasing a tortoise. When the action pauses, the cursor appears. The first cursor choice might be a blunderbuss, the second a cow, the third a paintbrush. The choice the player makes determines what happens next, though not necessarily in any way the player could predict -- in fact, unpredictability is the key to the success of the game.

Choose the blunderbuss, and the rabbit might produce a gun. The tortoise responds by pulling his own gun, and the two blast each other for a while. (At this point, the player controls the rabbit's aim and, therefore the outcome of the scene -- in fact, it may be that he would want to "die" so the tortoise would be forced to stop and comfort him, at which point, another choice point would allow the rabbit to produce a cream pie -- or a toaster or whatever -- and pie the tortoise before running off.)

Select the cow and a cow might fall from the sky, landing on the tortoise, allowing the rabbit to leap into the lead.

Select the paintbrush and you might be able to paint a train tunnel (out of which a real train emerges) or something equally silly.

At another point, the player might run up to the edge of a cliff and continues out over the edge. There the action stops. The cursor appears and offers a choice of legs, a question mark, or hands. The legs allow the character to run right across the open chasm, ignoring gravity. The question mark causes the character to stop and think, resulting (of course) in a fall. The hands could allow flapping and flying safely to the bottom of the chasm.

Players with enough hard drive space could be given the option of recording the game



(with no pauses at choice points) so they get to watch "their" cartoon whenever they want. The best way to think of this game is as a visual mad-libs story building utility. We tell the player where the blanks are (pauses at choice points) and provide cues about what sorts of choices can be made (choose a silly item at one time, a silly action at another, maybe a silly sound effect or comment at still others -- all displayed visually). Pauses at the choice points would give us time to load ALL of the potential outcomes into memory, resulting in relatively seamless play.

I still have to figure out ways to give players a bit more feeling of being in control than they would have in the scheme outlined above, but I don't anticipate too much of a problem.

What may be a more significant stumbling block is a potentially staggering amount of art this game would require. On the other hand, the modular nature of the design (several short, self-contained cartoon adventures) would allow us to schedule more efficiently and control our cost of goods more effectively. If we have time to put twenty adventures in the box, terrific. If we have art time and/or disk space for only five cartoons, that's what we provide, leaving the other fifteen for supplementary add-on modules.

### **EARLY READER "GAMES"**

These could use Ultima VII technology or (better, I think) run under Windows or just under DOS. In any case, we acquire the rights to classic early reader literature (Where the Wild Things Are, the entire Dr. Suess collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

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The game is presented in side-view, with each screen having multiple levels upon which the player can move his roach. OR we could do this in Underworld/Strike technology and do the game FROM THE PERSPECTIVE OF A COCKROACH!

The levels are as follows:

1. The Hatchery: A pantry in which the player is born (along with as many other little roaches as we can squeeze on the screen). Here, the player must eat enough crumbs to survive and grow as big and strong as he can. If he eats enough, he grows wings and can then fly into...

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6. The Great Outdoors: The plumbing dumps the player into a field. Here there be tigers...or, at least, house cats. Also spiders, mice, rainstorms, and other dangers.

7. Roach Wars: In a new house, the player must confront and defeat the native roaches.

8. The Hatchery II: Having survived all of the earlier levels, the player finds himself (or is it herself?) back in a pantry giving birth to a litter (or whatever you call it) of roaches. As in Altered Beast, the game recycles, a little faster, a little harder, a little more intelligently.

-- More levels (and more detail about each level) to come.

-- Every few levels the player gets a Roach Motel round -- a bonus round where he can get lots of points. Each Motel must be navigated in a different way. In fact, the perspective might even change here.

-- Death should be really disgusting (squished bugs, kicking legs, etc.)

-- Characters are cute, but gross, bugs (like the old Raid commercials). If we want, we can call the "hero" roach Riki the Roach, giving us a trademarkable name and character we can spin off in other games or, even, other media.

-- We can end with mankind completely frustrated by roaches. All attempts to kill the insects have failed, leaving just one alternative -- an atomic bomb. But even this doesn't work, and the final endgame screen shows thousands of roaches, the winning player's progeny, hatching.

Roach Motel would be unique. It'd be gross. It's kind of a funny/odd idea. It's a simple, easily explained idea that resonates for everyone -- nobody's going to see the game and react neutrally.

Every time a mom reacts with disgust, her young son will want the game even more.



TO: Myself  
FROM: Warren Spector  
DATE: 1/24/92  
RE: Games

## **UNDERWORLD (OR STRIKE) SPIN-OFFS**

### **UNDERWORLD 2: MURDER IN LORD BRITISH'S CASTLE**

The adventure begins shortly after Ultima 7, when the Avatar et al are trying to round up the remnant of the Fellowship. The clean-up after Ultima 7 is, in fact, the subject of the game.

But the Fellowship isn't about to just wait around until the noble Avatar and his pals put them out of their misery -- they've concocted a plot to ensure their safety. The plot begins with the kidnapping of the Avatar's closest friends -- Iolo, Shamino and Dupre, along with several acquaintances (Xiao, Mariah, etc.). Unless Lord British calls off the troops and allows the embattled Fellowship members to leave Britannia peaceably, the cream of Britannia's crop will be killed, one by one, in the most unpleasant manner.

The details of the plot are secondary to the concept of tying the Underworld 2 plot in directly with the mainstream Ultima saga. If, however, this concept is voted down, we should still strive to concoct a plot that allows players to explore Lord British's castle, the catacombs below, and the surrounding countryside from the unique 3D perspective of Underworld.

To give players something new to explore, I'd create a whole slew of new underground dungeons -- escape routes -- built in secret by the Fellowship. These are linked to the legitimate and well-documented dungeons below LB's castle by secret doors unknown even to Lord British himself. In the Fellowship dungeons, the player encounters the most nefarious traps and puzzles (as well as the most fearsome monsters from a variety of dimensions). Here are the remnants of the Fellowship (some repentant, others feigning repentance, still others committed to ridding the world of the Avatar and his ilk). Here, too, are prisoners maddened by years of torture. Some can be cured, others can only be subdued or killed (before they kill you...)

### **ALIEN COMMANDER**

This game combines Underworld technology with a Wing Commander storyline. The technology is strong and there have been very few first-person SF games (none of them successful, to my knowledge). We all know the strength of the Wing Commander trademark.

It's been over a decade since the destruction of the Tiger's Claw and a huge chunk of the old girl has been discovered in a backwater portion of the galaxy.



Strange signals are being picked up from the derelict and the player has been sent to investigate.

The player's ship is mysteriously destroyed after he's dropped off on the derelict, leaving him alone, with no way to signal for help. Exploration reveals that the chunk of the Claw is remarkably well-preserved, though there's no power and the life-support systems are out. (The player must wear an armored space suit, explaining why his view is so small and also why he has no peripheral vision...And digitized speech is a breeze -- the suit warns you when there's something approaching from out of sight...)

[NEED DETAILS HERE -- WHY ARE THERE CREATURES AND PEOPLE ON BOARD?]

There are lots of creatures roaming around the ship, most of them dangerous. There are some people, too, survivors of the Claw's explosion (or children of survivors).

What the player doesn't know (and must learn) is that members of the race known as the Double Helix (introduced in the Claw Marks magazine included with Wing Commander) had infiltrated the ship before it was blown up. They've spent the last ten+ years taking over the living creatures on the ship -- most (but not all) of the people and creatures the player encounters are DH hybrids.

The DH are genetic manipulators. They survive and thrive not by reproducing, but by merging with new races. The hybrids created by the merger are shape-shifters. There's no way to tell an enemy from a friend...

[THERE SHOULD BE AT LEAST ONE WAY TO TELL, SOMETHING SUBTLE.]

As the player explores the corridors of the ship, he must get the power on, repair life-support and communications systems, figure out that things are not what they seem, avoid being taken over by the DH, etc. Also, a cadre of Kilrathi are on the way -- they've picked up the signals from the ship, too. When they get on-board, they'll be at risk of being taken over and they'll also be a risk to the player.

Only by forging an alliance with the Kilrathi can the player survive.

Finally, the player must figure out the DH big plan. [I'D BETTER FIGURE THAT OUT, TOO...] There's a big, climactic battle at the heart of the Claw's anti-matter reactor. Getting to the reactor is dangerous beyond belief because of the DH minions and because of amazing levels of radiation (or something). The whole look of the game changes as the core is approached (lots of flashing lights, dimming visions, countdown timers that show how long the player has to live before the radiation kills him, etc.)

The DH being at the core is huge and hideous and



must be defeated or all mankind and Kilrathi-kind are doomed, of course.

### **MELT DOWN**

An adventure set in the Strike Commander universe, possibly a few years later. A nuclear power plant at a university goes haywire and the whole place is shut down (for months? years?). Eventually, the place cools down some and the player is contracted to go in and shut the still dangerous plant down. While there, the player has to deal with security systems that seem far more complex and deadly than necessary -- heavy, locked doors, robotic guards, remote control guns, etc.). There are also bizarre, mutated people and creatures here. Ultimately, the player learns that the university was engaged in genetic research for the government and the monsters developed in the labs are on the loose. The player must explore the university buildings, the underground steam tunnels, the sewers, and the heart of the reactor itself.

### **SYSTEM SIMULATORS (All new technology)**

#### **MASTER BUILDER**

At some time in their lives, everyone has stopped to look at a construction site. Now, instead of just watching you get to be the builder. You can build anything from a skyscraper to an Egyptian pyramid. (Suburban home, the Brooklyn Bridge, the New York subway, Austin's light rail system? Who knows?) We might also allow the demolition option.

#### **KENTUCKY DERBY**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

#### **FRANCHISE OWNER**

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs. You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report

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handled manually  
heavily at  
his creation*



the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **THE MAD SCIENTIST SIMULATOR**

A light-hearted, humorous game combining the most appealing aspects of Lemmings and Sim City. The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

First, he builds his castle. (In the introductory game, we'll provide some basic designs and let the player modify them...) Does he build an underground dungeon? Does he put a huge lightning rod on top? Does he build on the site of an ancient indian burial ground?

Then, he adds traps designed to catch potential experimental subjects or kill intruders (the pesky good guys who always seem to be lurking about).

What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

### **MEDIA MOGUL**

Ted Turner is Time magazine's Man-of-the-Year. Robert Maxwell's death is front page news. The Japanese buy American movie studios and shockwaves ripple throughout the business world. Magazines like Premiere and Entertainment Weekly and cable television's E! channel bring media news to a huge and growing audience of film and TV fans. Media Mogul gives the player the chance to make waves in the world of entertainment and big business.

The game could begin in just about any era, but I favor beginning back in the 1890's, when the movies and radio were little more than a gleam in the eye of inventors and entrepreneurs around the world and newspapers were in their heyday. The scope of the game is the entire 20th century, spilling over into the 21st...

The player has some investment funds available and must select a field of endeavor (print, movies, radio-telegraphy, etc). For the purposes of this discussion, we'll stick with film examples, but the same kinds of



decisions apply regardless of the medium the player chooses to enter:

If, for example, he selects movies, he would pick a technology -- Edison-style peep shows with short strips of film...Mutoscope-style flip cards...etc.

Once a technology is selected, he must pick a distribution/exhibition system. Will he own all of his own venues? Will he license others to show his stuff and sell them films? etc.

He must decide how to promote his work -- will he publicize his stars and/or writers/directors or keep their names a secret so he doesn't have to pay them as much?

As time passes, new technology becomes available - will he move into projection devices capable of entertaining many people at once or stick to the peep shows? Will he use the huge, Edison-style cameras which require studios or will he go with a Lumiere-style portable camera?

Where will he set up shop? In New York, where actors are readily available? In New Jersey, nearby and with varied scenery? In Florida or California, where the weather is better?

How will the player respond when Edison tries to monopolize the film business? When wide screen becomes available shortly after the turn of the century? When sound becomes available in the early-20s? When scandal hits? When government regulators and Wall Street money men enter the picture?

Will the player diversify into radio and/or television? When and to what degree?

How will the TV mogul deal with the introduction of cable and satellite communication?

This isn't just a dry simulation, but a dynamic, multi-media experience. The choices the player makes determine what he/she sees and hears. We'll provide little movies/TV & radio shows. Which things the player sees and hears are determined by the choices -- art or commerce? quality or quantity? If we can license REAL film/TV/radio clips, so much the better. If we can't we can always generate our own...

## WAR ROOM

To date, no one's done a computer war/board game that takes advantage of one of the computer's greatest strengths -- the ability to dole out information selectively.

It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield; he'd just see a map representing it. (Imagine the British war room, from which British commanding



officers conducted the Battle of Britain.)

A Hypercard-style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information and the situation as it appears on your map. You decide which information is accurate (this is used to update the map) and which is false or misleading (these messages are discarded).

Sometimes, 2-3 (or even 10-20) radio messages may come in at once, from various field positions. Messages may be garbled, or misunderstood by those manning the war room phones, or plain wrong.

Based on this information and the updated map, the player deploys forces. The enemy carries out a predetermined plan. The results are reported (again, through intelligence reports). The reports are sometimes late, sometimes sketchy. The player learns, through trial and error, that some of his field observers are more reliable than others (though no one's perfect).

The player must decide where to move reliable observers. He must decide whether to wait for more accurate reports (the longer you wait, the better the report), or whether to move quickly on sketchy information.

This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

#### **GANGLAND**

A game of gang warfare from the early years of the 20th century through the present day.

The player takes the part of a small-time operator in New York or Chicago. He begins with control of a small neighborhood, takes over a city and can even go national. Eventually, he becomes the head of a Mafia family a la The Godfather.

The player must decide whether to get into the bootlegging racket during Prohibition (and what to do after Prohibition is repealed). Will he kill a rival



gangster or reason with him? Will he try to go legit or rat on his Mafia brothers? Will he build Las Vegas? How will he deal with the rise of drugs and the rise of Jamaican gangs (to say nothing of the Crips and the Bloods)?

Everyone's interested in the underworld. Mobsters are always in the news. Books glorifying gangsters are everywhere. The success of movies like The Godfather (I, II, and III), Wiseguys, Bugsy, etc. bodes well for the success of an underworld game. The chance to play the part of a bad guy holds undeniable appeal.

#### **MYSTERIOUS WORLD (aka MONSTER HUNTER)**

Mount expeditions to discover the truth about (or debunk) the world's oldest, most fascinating mysteries -- does the Loch Ness monster really exist? Was Charles Fort right about the "natural" phenomena he reported? Is there a Bigfoot? Did Atlantis ever exist?

#### **MOMENT OF CRISIS**

You're the commander in chief of a nation that has just gone to war. Your generals will do the fighting for you (this is NOT a wargame), but you have to give them the supplies, equipment, and manpower to do the job. Your population will supply the supplies, equipment, and manpower, if you keep them happy. And there's always an election on the horizon. Ultimately, you can play for victory or peace.

#### **SIM-REALITY**

Wish you had it to do over again? Wonder how the other half lives? You can start as a poor ghetto kid, a middle-class kid, or a wealthy kid. The choices you make -- about school, college, sports, business, career, family, investment, etc -- determine the course of your life.

#### **AUTO MAGNATE**

You begin as a fledgling automaker (at the turn of the century, during the great depression, in the Fifties boom years, during the post-Nader seventies, or during Detroit's down years of the Eighties and Nineties).

Decide what you're going to build and where. Design cars that meet perceived market needs or build the car of your dreams. Respond to international competition.

#### **GENETIC ENGINEERS**

Manipulate genes to create new strains of plants, creatures, etc. Respond to specific needs and achieve desired results (everything from disease-resistant plants to creatures capable of surviving on Mars).

You can create designer species to-order or



creature stuff on your own (a living Erector-set...).

### **AMUSEMENT PARK MAYHEM**

Conceive, design and build amusement park attractions and try to attract the biggest crowds. Can you be the next Walt Disney?

### **FRONTIER**

This is an idea I proposed over a year ago. Response was pretty favorable at the time and I still think this is a viable idea. However, I wonder whether there's a big audience for any Old West-oriented project. In any event, submitted for your evaluation...

A simulation of the settling of the old west. The player could select a realistic approach or a John Wayne setting. What we're talking about here is a simulation of the taming of the old west (or the exploration of Africa or the settling of a planet in a distant solar system or...you get the idea).

### **Population Building**

You have to decide how many people to send across country in covered wagon trains. You decide the make-up of the families. Are you a caravan of homesteaders? Forty-Niners? Are you one guy who's going out west to ranch?

What route will you take? Northern (Oregon Trail)? Southern (Santa Fe Trail)? And what time of year will you travel?

Where will you stop? In Wisconsin? In Texas? In California? In The Pacific Northwest?

### **Activities & Goals**

What will you do when you get there? Farm? Ranch (cattle? sheep?)? Mine (gold? silver?)

Your goal is to attract people and set up a prosperous town or mining company.

Things that will signify success are: increased population, attracting mail routes or railroads, a bank, a marshall's office, getting the train to stop, a seaport (if you're near the water), cavalry fort, post offices, stockyards, etc. Ultimately you want to attract the county seat and then the state capital (because, ultimately, you want to vie for statehood).

Personal goals might be to become Mayor of your town (which you'll pretty much BE the mayor). Then, you move up to Senator, etc. OR you could strive to control the political figures (though this carries with it a completely different set of problems...)

### **Obstacles**

You have to deal with indians, bad men, droughts, flash floods, blizzards, natural predators, NPCs who compete with you (If you're the rancher, your



competition is the miner, for example), nearby towns (which compete with you for resources and economic development).

## WING COMMANDER 2 SPINOFFS

### TRADE COMMANDER

You're a lone wolf with a small freighter. Your goal isn't to win a war, but to become rich. Like Han Solo, you've outfitted your ship with some weapons and a couple of techno-tricks that give you a chance of surviving in the hostile WC universe, but you're not flying a nimble fighter or megapowerful bomber -- you're piloting a space age cargo ship. You're outmaneuvered and out-gunned by just about every ship in space (at least at first...)

I envision this as a fun system simulation (like Railroad Tycoon), but from an entirely new perspective -- the first-person, real-time action of Wing Commander.

You must establish contact with suppliers and convince them you can deliver their goods faster and more reliably than your competition. Figure out which colonies require which goods and then find the trade routes that will bring you the most profit. Pick the wrong trade route and perishables may rot.

Decide whether you will deal only with humans or whether you will establish partnerships with the Kilrathi?

You decide whether to be an honest trader, working within the limits imposed by the Confed high command or a smuggler dealing in contraband, or a pirate raiding honest merchants. Your decisions in this area may bring you into conflict with human and kilrathi forces, both military and civilian. (Here's one of the areas where combat comes in -- in addition, however, you're trading in a universe at war and, inevitably, you'll find yourself in the middle of battles. Military pilots from WC and WC2 could show up in these battle missions.)

The way I see this, you start out with a one or two man ship capable of carrying a fair amount of cargo. As you become more successful, you can choose to buy bigger ships (even ships capable of carrying armed fighters for defense). Buy a bigger ship and you'll have to hire a crew (and hope you don't hire any trouble-makers or mutineers). You can even run a fleet of ships (okay, maybe just two...), but you'll have to find a captain for your other ship and hope he's honest (or, at least, takes the same approach to trade that you do...)

Contact with trading partners, hiring of crew, buying ships, adding cargo modules, etc. would all be done through interactive screens -- meeting rooms, back-alley bars, etc. (like the WC bar).



In space, you might view the world through a Star Trek-style viewscreen. This could show the 3D universe or allow you to carry on a conversation with the captain of another ship.

#### **JAPANIME COMMANDER**

How about a giant, transforming robot slug-fest? There's no reason why we couldn't do a Japanese animated SF adventure. This isn't Robotech robots marching around on Earth -- it's Transformers in space.

The player is a teenager, an ace videogame player recruited by a quasi-governmental agency charged with defending the Earth against marauding alien invaders. He's young, he's green, he's cocky...and he's the best damn robot-jock we've got.

Press a button in your cockpit and trigger a specific flic that shows the transformation your button-press triggered. When you return to the cockpit, you're in a "new" ship, with new capabilities.

#### **CARTOON COMMANDER**

Why not take the Commander technology and do wacky, cartoonish space adventures. We've been so serious to this point -- why not do a Duck Dodgers in the 24th-1/2 Century or a TOON-inspired Spaced Out SAPS adventure? How about gigantic plush toys attacking an unsuspecting planet?

Well, it'd be different...

#### **ULTIMA VII SPINOFFS**

##### **GUMSHOE**

Ultima technology has always been perfect for detective stories -- in Ultima AND in the world of criminal investigation, you talk to people, hoping they'll give you clues that will allow you to solve a mystery. In both, you must track down hidden or lost items and glean their significance. In both, you must take the knowledge and items gained and solve a puzzle.

I envision an urban setting. The player is a two-bit investigator in the Mike Hammer or Travis McGee style. A woman in distress comes to him with a seemingly simple request for aid. During the course of his investigation, the player picks up hints of other cases which he can pursue or not, as he wishes.

As he follows up on some of his new leads and solves the small cases he chooses to take, he begins to detect a pattern. Many (though NOT all) of the cases seem connected. Eventually, if the player picks up on the connections and chooses to follow them up, he stumbles upon a major political cover-up that, if revealed, could shake the very foundations of the American government.

Does he continue? Can he be bought off? Can he



solve the case before he's killed or the government topples?

There are more mystery novels sold each year than any other form of literature. The market is adult, men and women. Action-oriented mysteries are a staple of film and television. Computer games are just beginning to tap into this market. The success of the Police Quest series and the Carmen Sandiego games (along with a new European entry, the name of which escapes me) shows that there's a market for this sort of game and no one has ever done it in Ultima style.

## MISCELLANEOUS

### PUBLIC DOMAIN GAMES

A collection of simple, public domain games running under Windows -- Nine Men's Morris, Cathedral, Oh-Wah-Ri, etc. Graphics would be ORIGIN-quality, putting us a notch above Microsoft's Entertainment Pack and shareware Windows games. We could also try to develop small, action-oriented puzzle games like Tetris.

### EARLY READER GAMES

These could use Ultima VII technology or (better, I think) run under Windows or just under DOS. In any case, we acquire the rights to classic early reader literature (Where the Wild Things Are, the entire Dr. Seuss collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typeical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product, we'd recreate the stories exactly in on-screen, animated flics. All text would be digitized, if possible. The player/reader would have the option of playing the story through straight or he/she could select simple branching options. In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

### ROACH MOTEL

Yes, the game idea that will not die!

The player takes the role of a cockroach



struggling for survival in a cruel world of bug sprays, roach motels, smashing newspapers, stomping feet, playful cats, and other insects.

The game is presented in side-view, with each screen having multiple levels upon which the player can move his roach. OR we could do this in Underworld/Strike technology and do the game FROM THE PERSPECTIVE OF A COCKROACH!

The levels are as follows:

1. The Hatchery: A pantry in which the player is born (along with as many other little roaches as we can squeeze on the screen). Here, the player must eat enough crumbs to survive and grow as big and strong as he can. If he eats enough, he grows wings and can then fly into...

2. The Kitchen: Here, the player first encounters humans (in the form of huge fly-swatters).

3. The Bedroom: A fuzzy rug makes the going slow. After a while, the player comes upon a sheer white cliff face. Climbing up it, he reaches a plateau. Continuing along atop this plateau, the terrain undulates and rolls, occasionally moving with earthquake-like intensity. (This is a bed, and there's a guy sleeping in it.) Eventually, the player gets to the sleeping man's head (surprise! recognition! laughter!). The guy's snoring to beat the band, mouth open wide. There are crumbs on his beard and moustache which must be gathered, but don't get sucked into his mouth or blown off the bed!

4. The Bathroom: The sink's full of soapy, brackish water and the player has to cross it. Maybe he can swim, but there are big risks. He can leap from soap chip to soap chip. His object is to unplug the stopper and get sucked down the drain into...

5. The Plumbing: A winding narrow passage allows little room for maneuvering. Encounter anything down here and there's no turning back, nowhere to run.

6. The Great Outdoors: The plumbing dumps the player into a field. Here there be tigers...or, at least, house cats. Also spiders, mice, rainstorms, and other dangers.

7. Roach Wars: In a new house, the player must confront and defeat the native roaches.

8. The Hatchery II: Having survived all of the earlier levels, the player finds himself (or is it herself?) back in a pantry giving birth to a litter (or whatever you call it) of roaches. As in Altered Beast, the game recycles, a little faster, a little harder, a little more intelligently.

-- More levels (and more detail about each level) to come.

-- Every few levels the player gets a Roach Motel round -- a bonus round where he can get lots of points.



Each Motel must be navigated in a different way. In fact, the perspective might even change here.

-- Death should be really disgusting (squished bugs, kicking legs, etc.)

-- Characters are cute, but gross, bugs (like the old Raid commercials). If we want, we can call the "hero" roach Riki the Roach, giving us a trademarkable name and character we can spin off in other games or, even, other media.

-- We can end with mankind completely frustrated by roaches. All attempts to kill the insects have failed, leaving just one alternative -- an atomic bomb. But even this doesn't work, and the final endgame screen shows thousands of roaches, the winning player's progeny, hatching.

#### WHY ROACH MOTEL?

It's unique. It's gross. It's kind of a funny/odd idea. It's a simple, easily explained idea that resonates for everyone -- nobody's going to see the game and react neutrally.

Every time a mom reacts with disgust, her 12 year old son is going to want the game a little more.



**TO: Anyone who'll listen...**  
**FROM: Warren Spector**  
**DATE: 1/16/92**  
**RE: Windows games to consider...**

Here are the Windows system simulation ideas Steve and I believe are worthy of consideration. One of these warrants inclusion on this year's schedule. Please read this memo and let me know if any of these game ideas intrigue you. I'll compile the "votes" and we'll work up more detailed proposals on the top three.

In all cases, we would support modem and LAN play and, where possible, we would use digitized video footage, as we intended to do in Next Frontier.

## **WING COMMANDER GAMES**

### **FLAGSHIP 1**

A game of strategic conflict in the Wing Commander 2 universe. The player is a human or Kilrathi fleet commander maneuvering his forces so he can defeat the enemy. This is fundamentally a wargame -- a game of resource management and allocation. It may be possible to allow players who have Wing 2 to save battle data off to disk and fly missions in Wing 2-style. (Those who don't have Wing 2 would, of course, simply duke it out in whatever form we select in Flagship.) Modem/network play would allow players to team up against the Kilrathi or play human vs. Kilrathi, and so on.

### **FLAGSHIP 2**

As an alternative to the wargame described above, we could do a game of space exploration set before the events depicted in Wing Commander 1. (In essence, this would be a game that tells players how the Wing Commander universe came to be.) The player would explore the reaches of space, encountering alien races, possibly coming into conflict with them, possibly establishing trade routes, and so on.

## **REAL-WORLD GAMES**

### **KENTUCKY DERBY**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

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This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **GANGLAND**

A game of gang warfare from the early years of the 20th century through the present day.







This approach would work for a variety of battle-types. You could start with a single-building defense and build to huge campaign scenarios. The basic game could provide lots of battles or you could plan a whole line of games using the same system, with each new game featuring a single battle.

The War Room concept could be applied to air battles/naval battles (Battle of Britain, Midway) or land battles (D-Day, Battle of the Bulge).

The concept could even be applied to different time periods. There's no reason not to do a Spanish Armada game, a Napoleon's battles game, a WW3 game, a far future space fighters game, a Viet Nam game, and so on. Each era has different kind of intelligence, received at different rate of speed, etc.

We would probably apply this approach to the Wing Commander universe, but we could just as easily do a Britannian battle game.

## **FANTASY GAMES**

### **THE MAD SCIENTIST SIMULATOR**

A light-hearted, humorous game in the style of Lemmings. The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

First, he builds his castle. (In the introductory game, we'll provide some basic designs and let the player modify them...) Does he build an underground dungeon? Does he put a huge lightning rod on top? Does he build on the site of an ancient Indian burial ground?

Then, he adds traps designed to catch potential experimental subjects or kill intruders (the pesky good guys who always seem to be lurking about).

What kind of followers does the player want to attract? Is he creating a diabolical religion so he can call a Cthulhoid beast into our dimension? Is he a vampire who requires a willing dupe who can draw victims to his door? Is he a mad scientist who requires strong-armed thugs who can dig up corpses so he can sew them together and build a new man?

The real fun here is building the castle and then watching the pitiful forces of good try to penetrate the defenses. Their failures are shown in graphic, but humorous, detail (sort of like the death of the lemmings in Lemmings).

### **TUNNEL WARS**

The player is a Dwarf-king (or a Mountain Man, if we want to set the game in Britannia and Richard doesn't want dwarves in Ultima). He lives deep underground. Dwarf workers build and expand tunnels, construct halls, forge weapons, mine gold and gems, etc. Other races, including dwarf bands, are also running around -- but you don't know where exactly. You can sometimes hear digging, but until one of your tunnels happens to stumble across their tunnels, you don't interact with them.

## **ON ANOTHER TOPIC...**

In addition to the system simulation ideas above, I'd like to present the following educational game for your consideration. I believe we could do a system simulation (or an edutainment product of the sort Dallas has proposed) and STILL do one or several "Early Reader" games:

### **EARLY READER GAMES**

These could use Ultima VII technology or (better, I think) run under Windows or just under DOS. In any case, we acquire the rights to classic early reader literature (Where



the Wild Things Are, the entire Dr. Seuss collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product (as I believe we should), we'd recreate the stories exactly in on-screen, animated sequences. All text would be recorded and digitized, if possible.

The player/reader would have the option of playing the story through straight or he/she could select simple branching options.

In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

The effort involved in something like this would be somewhat greater than a Special Ops disk but nowhere near the effort to do an Ultima or Wing Commander spin-off. However we do it, we already have the technology to do this entire game.

CD versions of these games would be a snap and the sequel possibilities are limited only by the number of children's books (which is to say, we're not limited at all). Finally, if the concept is a hit, we can generate original stories and sell the rights to a book publisher.



**TO: Anyone who'll listen...**  
**FROM: Warren Spector**  
**DATE: 1/16/92**  
**RE: Windows games to consider...**

Here are the Windows system simulation ideas Steve and I believe are worthy of consideration. One of these warrants inclusion on this year's schedule. Please read this memo and let me know if any of these game ideas intrigue you. I'll compile the "votes" and we'll work up more detailed proposals on the top three.

In all cases, we would support modem and LAN play and, where possible, we would use digitized video footage, as we intended to do in Next Frontier.

### **WING COMMANDER GAMES**

#### **FLAGSHIP 1**

A game of strategic conflict in the Wing Commander 2 universe. The player is a human or Kilrathi fleet commander maneuvering his forces so he can defeat the enemy. This is fundamentally a wargame -- a game of resource management and allocation. It may be possible to allow players who have Wing 2 to save battle data off to disk and fly missions in Wing 2-style. (Those who don't have Wing 2 would, of course, simply duke it out in whatever form we select in Flagship.) Modem/network play would allow players to team up against the Kilrathi or play human vs. Kilrathi, and so on.

#### **FLAGSHIP 2**

As an alternative to the wargame described above, we could do a game of space exploration set before the events depicted in Wing Commander 1. (In essence, this would be a game that tells players how the Wing Commander universe came to be.) The player would explore the reaches of space, encountering alien races, possibly coming into conflict with them, possibly establishing trade routes, and so on.

### **REAL-WORLD GAMES**

#### **KENTUCKY DERBY**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. This could lead to a line of Sports Owner games like...

#### **FRANCHISE OWNER**

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style



you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs. You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

This isn't a sports simulation in the conventional sense -- you don't control (or even see) the action in individual games (except as the TV news shows report the action in canned video sequences). This is a simulation of running a sports franchise.

Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **GANGLAND**

A game of gang warfare from the early years of the 20th century through the present day.

The player takes the part of a small-time operator in New York or Chicago. He begins with control of a small neighborhood, takes over a city and can even go national. Eventually, he becomes the head of a Mafia family a la The Godfather.

The player must decide whether to get into the bootlegging racket during Prohibition (and what to do after Prohibition is repealed). Will he kill a rival gangster or reason with him? Will he try to go legit or rat on his Mafia brothers? Will he build Las Vegas? How will he deal with the rise of drugs and the rise of Jamaican gangs (to say nothing of the Crips and the Bloods)?

Everyone's interested in the underworld. Mobsters are always in the news. Books glorifying gangsters are everywhere. The success of movies like The Godfather (I, II, and III), Wiseguys, Bugsy, etc. bodes well for the success of an underworld game. The chance to play the part of a bad guy holds undeniable appeal.

### **WAR ROOM**

One of the computer's greatest strengths is its ability to dole out information selectively. It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield; he'd just see a map representing it. (Imagine the British war room, from which British commanding officers conducted the Battle of Britain.)

A Hypercard-style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information



and the situation as it appears on your map. You decide which information is accurate (this is used to update the map) and which is false or misleading (these messages are discarded).

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# WARREN SPECTOR'S BIG BOOK OF GAME IDEAS 1

6/10/92

## UNDERWORLD (OR STRIKE) SPIN-OFFS

### UNDERWORLD 2: MURDER IN LORD BRITISH'S CASTLE

The adventure begins shortly after Ultima 7, when the Avatar et al are trying to round up the remnant of the Fellowship. The clean-up after Ultima 7 is, in fact, the subject of the game.

But the Fellowship isn't about to just wait around until the noble Avatar and his pals put them out of their misery -- they've concocted a plot to ensure their safety. The plot begins with the kidnapping of the Avatar's closest friends -- Iolo, Shamino and Dupre, along with several acquaintances (Xiao, Mariah, etc.). Unless Lord British calls off the troops and allows the embattled Fellowship members to leave Britannia peaceably, the cream of Britannia's crop will be killed, one by one, in the most unpleasant manner.

The details of the plot are secondary to the concept of tying the Underworld 2 plot in directly with the mainstream Ultima saga. If, however, this concept is voted down, we should still strive to concoct a plot that allows players to explore Lord British's castle, the catacombs below, and the surrounding countryside from the unique 3D perspective of Underworld.

To give players something new to explore, I'd create a whole slew of new underground dungeons -- escape routes -- built in secret by the Fellowship. These are linked to the legitimate and well-documented dungeons below LB's castle by secret doors unknown even to Lord British himself. In the Fellowship dungeons, the player encounters the most nefarious traps and puzzles (as well as the most fearsome monsters from a variety of dimensions). Here are the remnants of the Fellowship (some repentant, others feigning repentance, still others committed to ridding the world of the Avatar and his ilk). Here, too, are prisoners maddened by years of torture. Some can be cured, others can only be subdued or killed (before they kill you...)

### ALIEN COMMANDER (A Personal Favorite)

This game combines Underworld technology with a Wing Commander storyline. The technology is strong and there have been very few first-person SF games (none of them successful, to my knowledge). We all know the strength of the Wing Commander trademark.

It's been over a decade since the destruction of the Tiger's Claw and a huge chunk of the old girl has been discovered in a backwater portion of the galaxy. Strange signals are being picked up from the derelict and the player has been sent to investigate.

The player's ship is mysteriously destroyed after he's dropped off on the derelict, leaving him alone, with no way to signal for help. Exploration reveals that the chunk of the Claw is remarkably well-preserved, though there's no power and the life-support systems are out. (The player must wear an armored space suit, explaining why his view is so small and also why he has no peripheral vision...And digitized speech is a breeze -- the suit warns you when there's something approaching from out of sight...)

There are lots of creatures roaming around the ship, most of them dangerous. There are some people, too, survivors of the Claw's explosion (or children of survivors).

What the player doesn't know (and must learn) is that members of the race known as the Double Helix (introduced in the Claw Marks magazine included with Wing Commander) had infiltrated the ship before it was blown up. They've spent the last ten+ years taking over the living creatures on the ship -- most (but not all) of the people and creatures the player encounters are DH hybrids.

The DH are genetic manipulators. They survive and thrive not by reproducing, but by merging with new races. The hybrids created by the merger are shape-shifters. It's very difficult to tell an enemy from a friend...

As the player explores the corridors of the ship, he must get the power on, repair life-



support and communications systems, figure out that things are not what they seem, avoid being taken over by the DH, etc. Also, a cadre of Kilrathi are on the way -- they've picked up the signals from the ship, too. When they get on-board, they'll be at risk of being taken over and they'll also be a risk to the player.

Only by forging an alliance with the Kilrathi can the player survive.

Finally, the player must figure out the DH big plan. There's a big, climactic battle at the heart of the Claw's anti-matter reactor. Getting to the reactor is dangerous beyond belief because of the DH minions and because of amazing levels of radiation (or something). The whole look of the game changes as the core is approached (lots of flashing lights, dimming visions, countdown timers that show how long the player has to live before the radiation kills him, etc.)

The DH being at the core is huge and hideous and must be defeated or all mankind and Kilrathi-kind are doomed, of course.

## **MELT DOWN**

An adventure set in the Strike Commander universe, possibly a few years later. A nuclear power plant at a university goes haywire and the whole place is shut down (for months? years?). Eventually, the place cools down some and the player is contracted to go in and shut the still dangerous plant down. While there, the player has to deal with security systems that seem far more complex and deadly than necessary -- heavy, locked doors, robotic guards, remote control guns, etc.). There are also bizarre, mutated people and creatures here. Ultimately, the player learns that the university was engaged in genetic research for the government and the monsters developed in the labs are on the loose. The player must explore the university buildings, the underground steam tunnels, the sewers, and the heart of the reactor itself.

## **SYSTEM SIMULATORS** (All new technology)

### **DERBY WINNER (A Personal Favorite)**

Breed, buy, sell, train, race a stable of horses in your attempt to reach the victory circle. Digitized video of horse auctions (interactive), races, etc. give this simulation a unique feel. Another key feature of the game is an unprecedented level of player choice: The player selects the kind of game he or she wants to play, automating whatever aspects of play don't appeal to him or her. There are three major elements to the game, any (or all) of which can be automated:

The first is a breeding game in which the player attends horse auctions, buys and sells horses or stud services in an attempt to make money and breed championship calibre racing horses. A basic understanding of genetics and economics would help the player (and any who didn't have such an understanding would acquire it through play).

The second element of the game is a betting/handicapping game here the player goes to the track, checks out the odds on various horses in various races under various conditions and decides how much money to bet on which horses. The game could provide a crash course in sports handicapping.

The third element is an action-oriented jockey game where the player actually races the horse, deciding when to make a move, whether to go to the outside of the track or the inside, when to use the whip, etc.

I'm not sure we REALLY want to do what I'm about to suggest, but we COULD try for a Daily Racing Form license...

If Derby Winner catches on, it could lead to a line of Franchise Owner games like...

### **FRANCHISE OWNER**

You're the owner of a fledgling sports franchise (sport to be determined, probably by marketing) in a budding league. You draft the players you want (within a set budget), hire the coach who will play the style you want. You make trades, handle marketing issues, decide whether to relocate or build a new arena, deal with injuries, drug problems, and player hold-outs.



You can even sell the team and start over, but the new owner will be right there, running your team and, possibly, showing you how a sports franchise should be run.

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Your goal is to build a sports dynasty and/or get seriously rich in the process.

### **THE MAD SCIENTIST SIMULATOR (A Personal Favorite)**

A light-hearted, humorous game combining the most appealing aspects of Lemmings and Sim City. The player takes the part of a mad scientist who wants nothing more than to be left alone so he can experiment with things man was not meant to know.

First, he builds his castle. (In the introductory game, we'll provide some basic designs and let the player modify them...) Does he build an underground dungeon? Does he put a huge lightning rod on top? Does he build on the site of an ancient indian burial ground?

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### **MEDIA MOGUL**

Ted Turner is Time magazine's Man-of-the-Year. Robert Maxwell's death is front page news. The Japanese buy American movie studios and shockwaves ripple throughout the business world. Magazines like Premiere and Entertainment Weekly and cable television's E! channel bring media news to a huge and growing audience of film and TV fans. Media Mogul gives the player the chance to make waves in the world of entertainment and big business.

The game could begin in just about any era, but I favor beginning back in the 1890's, when the movies and radio were little more than a gleam in the eye of inventors and entrepreneurs around the world and newspapers were in their heyday. The scope of the game is the entire 20th century, spilling over into the 21st...

The player has some investment funds available and must select a field of endeavor (print, movies, radio-telegraphy, etc). For the purposes of this discussion, we'll stick with film examples, but the same kinds of decisions apply regardless of the medium the player chooses to enter:

If, for example, he selects movies, he would pick a technology -- Edison-style peep shows with short strips of film...Mutoscope-style flip cards...etc.

Once a technology is selected, he must pick a distribution/exhibition system. Will he own all of his own venues? Will he license others to show his stuff and sell them films? etc.

He must decide how to promote his work -- will he publicize his stars and/or writers/directors or keep their names a secret so he doesn't have to pay them as much?

As time passes, new technology becomes available -- will he move into projection devices capable of entertaining many people at once or stick to the peep shows? Will he use the huge, Edison- style cameras which require studios or will he go with a Lumiere- style portable camera?

Where will he set up shop? In New York, where actors are readily available? In New Jersey, nearby and with varied scenery? In Florida or California, where the weather is better?

How will the player respond when Edison tries to monopolize the film business? When wide screen becomes available shortly after the turn of the century? When sound becomes available in the early-20s? When scandal hits? When government regulators and Wall Street



money men enter the picture?

Will the player diversify into radio and/or television? When and to what degree?

How will the TV mogul deal with the introduction of cable and satellite communication?

This isn't just a dry simulation, but a dynamic, multi-media experience. The choices the player makes determine what he/she sees and hears. We'll provide little movies/TV & radio shows. Which things the player sees and hears are determined by the choices -- art or commerce? quality or quantity? If we can license REAL film/TV/radio clips, so much the better. If we can't we can always generate our own...

## **WAR ROOM**

To date, no one's done a computer war/board game that takes advantage of one of the computer's greatest strengths -- the ability to dole out information selectively.

It would be fairly simple to recreate the real "fog of war" in a computer game, a game where the player would have to make tactical decisions and deploy forces based on short, written intelligence reports. The player would never actually see the battlefield; he'd just see a map representing it. (Imagine the British war room, from which British commanding officers conducted the Battle of Britain.)

A Hypercard-style display might be the way to go. The lowest level would be a stylized battlefield map. Intelligence reports from observers at the front would come in periodically, appearing over the map. You deploy your forces based on this limited information and the situation as it appears on your map. You decide which information is accurate (this is used to update the map) and which is false or misleading (these messages are discarded).

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### **GENETIC ENGINEERS (A Personal Favorite)**

Manipulate genes to create new strains of plants, creatures, etc. Respond to specific needs and achieve desired results (everything from disease-resistant plants to creatures capable of surviving on Mars).

You can create designer species to-order or creature stuff on your own (a living Erector-set...).

### **MASTER BUILDER**

At some time in their lives, everyone has stopped to look at a construction site. Now, instead of just watching you get to be the builder. You can build anything from a skyscraper to an Egyptian pyramid. (Suburban home, the Brooklyn Bridge, the New York subway, Austin's light rail system? Who knows?) We might also allow the demolition option.

### **MYSTERIOUS WORLD (aka MONSTER HUNTER)**

Mount expeditions to discover the truth about (or debunk) the world's oldest, most fascinating mysteries -- does the Loch Ness monster really exist? Was Charles Fort right about the "natural" phenomena he reported? Is there a Bigfoot? Did Atlantis ever exist?

### **MOMENT OF CRISIS**

You're the commander in chief of a nation that has just gone to war. Your generals will do the fighting for you (this is NOT a wargame), but you have to give them the supplies, equipment, and manpower to do the job. Your population will supply the supplies, equipment, and manpower, if you keep them happy. And there's always an election on the horizon. Ultimately, you can play for victory or peace.

### **SIM-REALITY**

Wish you had it to do over again? Wonder how the other half lives? You can start as a poor ghetto kid, a middle-class kid, or a wealthy kid. The choices you make -- about school, college, sports, business, career, family, investment, etc -- determine the course of your life.

### **AUTO MAGNATE**

You begin as a fledgling automaker (at the turn of the century, during the great depression, in the Fifties boom years, during the post-Nader seventies, or during Detroit's down years of the Eighties and Nineties).

Decide what you're going to build and where. Design cars that meet perceived market needs or build the car of your dreams. Respond to international competition.

### **AMUSEMENT PARK MAYHEM**

Conceive, design and build amusement park attractions and try to attract the biggest crowds. Can you be the next Walt Disney?

### **FRONTIER**

This is an idea I proposed over a year ago. Response was pretty favorable at the time and I still think this is a viable idea. However, I wonder whether there's a big audience for any Old West-oriented project. In any event, submitted for your evaluation...

A simulation of the settling of the old west. The player could select a realistic approach



or a John Wayne setting. What we're talking about here is a simulation of the taming of the old west (or the exploration of Africa or the settling of a planet in a distant solar system or...you get the idea).

You have to decide how many people to send across country in covered wagon trains. You decide the make-up of the families. Are you a caravan of homesteaders? Forty-Niners? Are you one guy who's going out west to ranch?

What route will you take? Northern (Oregon Trail)? Southern (Santa Fe Trail)? And what time of year will you travel?

Where will you stop? In Wisconsin? In Texas? In California? In The Pacific Northwest?

What will you do when you get there? Farm? Ranch (cattle? sheep?)? Mine (gold? silver?)

Your goal is to attract people and set up a prosperous town or mining company.

Things that will signify success are: increased population, attracting mail routes or railroads, a bank, a marshall's office, getting the train to stop, a seaport (if you're near the water), cavalry fort, post offices, stockyards, etc. Ultimately you want to attract the county seat and then the state capital (because, ultimately, you want to vie for statehood).

Personal goals might be to become Mayor of your town (which you'll pretty much BE the mayor). Then, you move up to Senator, etc. OR you could strive to control the political figures (though this carries with it a completely different set of problems...)

You have to deal with indians, bad men, droughts, flash floods, blizzards, natural predators, NPCs who compete with you (If you're the rancher, your competition is the miner, for example), nearby towns (which compete with you for resources and economic development).

## WING COMMANDER 2 SPINOFFS

### TRADE COMMANDER

You're a lone wolf with a small freighter. Your goal isn't to win a war, but to become rich. Like Han Solo, you've outfitted your ship with some weapons and a couple of techno-tricks that give you a chance of surviving in the hostile WC universe, but you're not flying a nimble fighter or megapowerful bomber -- you're piloting a space age cargo ship. You're out-maneuvered and out-gunned by just about every ship in space (at least at first...)

I envision this as a fun system simulation (like Railroad Tycoon), but from an entirely new perspective -- the first-person, real-time action of Wing Commander.

You must establish contact with suppliers and convince them you can deliver their goods faster and more reliably than your competition. Figure out which colonies require which goods and then find the trade routes that will bring you the most profit. Pick the wrong trade route and perishables may rot.

Decide whether you will deal only with humans or whether you will establish partnerships with the Kilrathi?

You decide whether to be an honest trader, working within the limits imposed by the Confed high command or a smuggler dealing in contraband, or a pirate raiding honest merchants. Your decisions in this area may bring you into conflict with human and kilrathi forces, both military and civilian. (Here's one of the areas where combat comes in -- in addition, however, you're trading in a universe at war and, inevitably, you'll find yourself in the middle of battles. Military pilots from WC and WC2 could show up in these battle missions.)

The way I see this, you start out with a one or two man ship capable of carrying a fair amount of cargo. As you become more successful, you can choose to buy bigger ships (even ships capable of carrying armed fighters for defense). Buy a bigger ship and you'll have to hire a crew (and hope you don't hire any trouble-makers or mutineers). You can even run a fleet of ships (okay, maybe just two...), but you'll have to find a captain for your other ship and hope he's honest (or, at least, takes the same approach to trade that you do...)

Contact with trading partners, hiring of crew, buying ships, adding cargo modules, etc. would all be done through interactive screens -- meeting rooms, back-alley bars, etc. (like the



WC bar).

In space, you might view the world through a Star Trek-style viewscreen. This could show the 3D universe or allow you to carry on a conversation with the captain of another ship.

### **JAPANESE COMMANDER**

How about a giant, transforming robot slug-fest? There's no reason why we couldn't do a Japanese animated SF adventure. This isn't Robotech robots marching around on Earth -- it's Transformers in space.

The player is a teenager, an ace videogame player recruited by a quasi-governmental agency charged with defending the Earth against marauding alien invaders. He's young, he's green, he's cocky...and he's the best damn robot-jock we've got.

Press a button in your cockpit and trigger a specific flic that shows the transformation your button-press triggered. When you return to the cockpit, you're in a "new" ship, with new capabilities.

### **CARTOON COMMANDER (A Personal Favorite)**

Why not take the Commander technology and do wacky, cartoonish space adventures. We've been so serious to this point -- why not do a Duck Dodgers in the 24th-1/2 Century or a TOON-inspired Spaced Out SAPS adventure? How about gigantic plush toys attacking an unsuspecting planet?

Well, it'd be different...

## **ULTIMA VII SPINOFFS**

### **GUMSHOE**

Ultima technology has always been perfect for detective stories -- in Ultima AND in the world of criminal investigation, you talk to people, hoping they'll give you clues that will allow you to solve a mystery. In both, you must track down hidden or lost items and glean their significance. In both, you must take the knowledge and items gained and solve a puzzle.

I envision an urban setting. The player is a two-bit investigator in the Mike Hammer or Travis McGee style. A woman in distress comes to him with a seemingly simple request for aid. During the course of his investigation, the player picks up hints of other cases which he can pursue or not, as he wishes.

As he follows up on some of his new leads and solves the small cases he chooses to take, he begins to detect a pattern. Many (though NOT all) of the cases seem connected. Eventually, if the player picks up on the connections and chooses to follow them up, he stumbles upon a major political cover-up that, if revealed, could shake the very foundations of the American government.

Does he continue? Can he be bought off? Can he solve the case before he's killed or the government topples?

There are more mystery novels sold each year than any other form of literature. The market is adult, men and women. Action- oriented mysteries are a staple of film and television. Computer games are just beginning to tap into this market. The success of the Police Quest series and the Carmen Sandiego games (along with a new European entry, the name of which escapes me) shows that there's a market for this sort of game and no one has ever done it in Ultima style.

## **MISCELLANEOUS**

### **CARTOON MAYHEM (A Personal Favorite)**

A cinematic cartoon game designed to capitalize on the popularity of shows like Ren & Stimpy, The Simpsons, and perennial favorites from Warner Brothers and Walt Disney. Players watch brief snippets of a cartoon. When a decision point is reached, the action



freezes (in the beginners game -- in the advanced game, the action could continue along a predetermined path until and unless the player makes a choice) and a mouse cursor appears. Right-clicking changes the cursor shape. We determine what the shapes (and therefore the available choices/outcomes) are. Left click when the cursor is the shape of the object or action you want your character to perform and the action begins again, with the selected object determining which branch the story follows.

For example, the scene might involve a rabbit (the player's character) chasing a tortoise. When the action pauses, the cursor appears. The first cursor choice might be a blunderbuss, the second a cow, the third a paintbrush. The choice the player makes determines what happens next, though not necessarily in any way the player could predict -- in fact, unpredictability is the key to the success of the game.

Choose the blunderbuss, and the rabbit might produce a gun. The tortoise responds by pulling his own gun, and the two blast each other for a while. (At this point, the player controls the rabbit's aim and, therefore the outcome of the scene -- in fact, it may be that he would want to "die" so the tortoise would be forced to stop and comfort him, at which point, another choice point would allow the rabbit to produce a cream pie -- or a toaster or whatever -- and pie the tortoise before running off.)

Select the cow and a cow might fall from the sky, landing on the tortoise, allowing the rabbit to leap into the lead.

Select the paintbrush and you might be able to paint a train tunnel (out of which a real train emerges) or something equally silly.

At another point, the player might run up to the edge of a cliff and continues out over the edge. There the action stops. The cursor appears and offers a choice of legs, a question mark, or hands. The legs allow the character to run right across the open chasm, ignoring gravity. The question mark causes the character to stop and think, resulting (of course) in a fall. The hands could allow flapping and flying safely to the bottom of the chasm.

Players with enough hard drive space could be given the option of recording the game (with no pauses at choice points) so they get to watch "their" cartoon whenever they want.

The best way to think of this game is as a visual mad-libs story building utility. We tell the player where the blanks are (pauses at choice points) and provide cues about what sorts of choices can be made (choose a silly item at one time, a silly action at another, maybe a silly sound effect or comment at still others -- all displayed visually). Pauses at the choice points would give us time to load ALL of the potential outcomes into memory, resulting in relatively seamless play.

I still have to figure out ways to give players a bit more feeling of being in control than they would have in the scheme outlined above, but I don't anticipate too much of a problem.

What may be a more significant stumbling block is a potentially staggering amount of art this game would require. On the other hand, the modular nature of the design (several short, self-contained cartoon adventures) would allow us to schedule more efficiently and control our cost of goods more effectively. If we have time to put twenty adventures in the box, terrific. If we have art time and/or disk space for only five cartoons, that's what we provide, leaving the other fifteen for supplementary add-on modules.

## **RALLYE**

A real-time, dynamic, first-person puzzle. Like a car rally (though not requiring a car...) The player must follow route instructions along a convoluted path while maintaining a constantly changing average speed (or number of steps or something). Course changes can be dictated by distance ("Turn at 3.45 miles") or by landmark ("Turn left at a sign reading 'Joe's Diner.'") or by main road rule (You reach a T-intersection but have no instructions -- an overall rule, or set of rules, determines whether you turn right or left). Also, the player must report seeing (or NOT seeing) specific landmarks.

The idea is to complete the course NOT in the shortest amount of time, but in the amount of time closest to the ideal (as determined by the rally master based on the distance he



knows you'll have to travel, the speeds he dictates and the landmarks you report seeing in your travels).

Rallying is a popular participation sport involving people who are into cars and, of greatest importance, computers. (For years, there have been classes for rallyists who use computers in their cars.)

## **PUBLIC DOMAIN GAMES**

A collection of simple, public domain games running under Windows -- Nine Men's Morris, Cathedral, Oh-Wah-Ri, etc. Graphics would be ORIGIN-quality, putting us a notch above Microsoft's Entertainment Pack and shareware Windows games. We could also try to develop small, action-oriented puzzle games like Tetris.

## **EARLY READER GAMES (A Personal Favorite)**

These could use Ultima VII technology or (better, I think) run under Windows or just under DOS. In any case, we acquire the rights to classic early reader literature (Where the Wild Things Are, the entire Dr. Suess collection, Make Way for Ducklings, etc.). We'd also do well to include a copy of the book being adapted in the game box.

If we go with U7, we'd recreate (in Ultima style) the worlds depicted in these books. The "player" could explore the world in typeical Ultima fashion, engaging in SIMPLE interactive conversations with the inhabitants. The plots of the books would be recreated as much as possible, with the player/reader having the option of changing things a little through his/her actions. We'd definitely lift as MUCH text from the books as possible.

If we do a new, Windows-based product, we'd recreate the stories exactly in on-screen, animated flics. All text would be digitized, if possible. The player/reader would have the option of playing the story through straight or he/she could select simple branching options. In addition, the player could listen to the digitized speech or just display the book's text on screen or have the words pop up as they're spoken, making this a fresh, fun, educational approach to old favorites.

## **ROACH MOTEL (A Personal Favorite)**

Yes, the game idea that will not die!

The player takes the role of a cockroach struggling for survival in a cruel world of bug sprays, roach motels, smashing newspapers, stomping feet, playful cats, and other insects.

The game is presented in side-view, with each screen having multiple levels upon which the player can move his roach. OR we could do this in Underworld/Strike technology and do the game FROM THE PERSPECTIVE OF A COCKROACH!

The levels are as follows:

1. The Hatchery: A pantry in which the player is born (along with as many other little roaches as we can squeeze on the screen). Here, the player must eat enough crumbs to survive and grow as big and strong as he can. If he eats enough, he grows wings and can then fly into...

2. The Kitchen: Here, the player first encounters humans (in the form of huge fly-swatters).

3. The Bedroom: A fuzzy rug makes the going slow. After a while, the player comes upon a sheer white cliff face. Climbing up it, he reaches a plateau. Continuing along atop this plateau, the terrain undulates and rolls, occasionally moving with earthquake-like intensity. (This is a bed, and there's a guy sleeping in it.) Eventually, the player gets to the sleeping man's head (surprise! recognition! laughter!). The guy's snoring to beat the band, mouth open wide. There are crumbs on his beard and moustache which must be gathered, but don't get sucked into his mouth or blown off the bed!

4. The Bathroom: The sink's full of soapy, brackish water and the player has to cross it. Maybe he can swim, but there are big risks. He can leap from soap chip to soap chip. His object is to unplug the stopper and get sucked down the drain into...

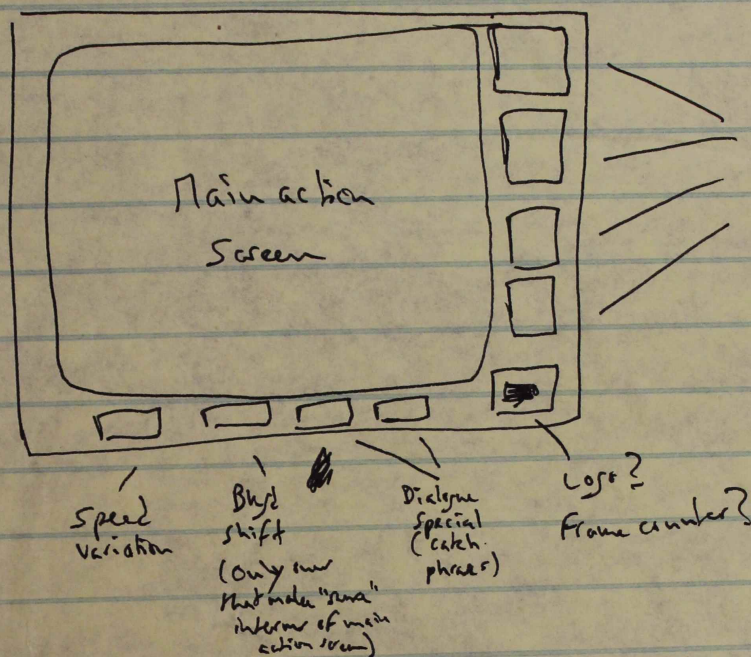
5. The Plumbing: A winding narrow passage allows little room for maneuvering. Encounter anything down here and there's no turning back, nowhere to run.



6. The Great Outdoors: The plumbing dumps the player into a field. Here there be tigers...or, at least, house cats. Also spiders, mice, rainstorms, and other dangers.
  7. Roach Wars: In a new house, the player must confront and defeat the native roaches.
  8. The Hatchery II: Having survived all of the earlier levels, the player finds himself (or is it herself?) back in a pantry giving birth to a litter (or whatever you call it) of roaches. As in Altered Beast, the game recycles, a little faster, a little harder, a little more intelligently.
    - More levels (and more detail about each level) to come.
    - Every few levels the player gets a Roach Motel round -- a bonus round where he can get lots of points. Each Motel must be navigated in a different way. In fact, the perspective might even change here.
    - Death should be really disgusting (squished bugs, kicking legs, etc.)
    - Characters are cute, but gross, bugs (like the old Raid commercials). If we want, we can call the "hero" roach Riki the Roach, giving us a trademarkable name and character we can spin off in other games or, even, other media.
    - We can end with mankind completely frustrated by roaches. All attempts to kill the insects have failed, leaving just one alternative -- an atomic bomb. But even this doesn't work, and the final endgame screen shows thousands of roaches, the winning player's progeny, hatching.
- Roach Motel would be unique. It'd be gross. It's kind of a funny/odd idea. It's a simple, easily explained idea that resonates for everyone -- nobody's going to see the game and react neutrally.
- Every time a mom reacts with disgust, her young son will want the game even more.



## Cartoongame:



~~Frame~~ Frame counter tells player how much longer shot in main action screen will last.

When frame counter reaches 0, game selects next shot automatically. Any time before it reaches 0, player can select one of the option scenes (by clicking on it). That overrides game's auto selection. When frame counter = 0, next option scene is displayed.

If player doesn't like option scene available, a byte shift usually causes at least one new option to appear. (A desert main scene can be replaced by a blizzard background. Instead of desert options, player gets cold drink option.)

A dialogue special can also affect option scene. (Character says, "Your character is injured" and option scene appears to follow consequences of that line)

Speed variation can change a character's walk to a run, which also affects option scene.



## HISTORY OF AUSTIN GAMING

### **Metagaming**

It all started in 1977 when Howard Thompson and Metagaming Concepts launched the first microgame -- Ogre, Steve Jackson's homage to Keith Laumer's Bolo stories.

Others quickly followed:

- Steve Jackson's Melee, 1977 (with Wizard, the heart of The Fantasy Trip RPG)
- Chitin: I, 1977
- Warp War, 1977
- Rivets, 1977 (Robert Taylor)
- Steve Jackson's Wizard, 1978
- Olympica, 1978
- Steve Jackson's G.E.V., 1978
- Ice War, 1978

Ultimately, 22 games were released in the MicroGame line between 1977 and 1982 before Metagaming closed up shop in April of 1983.

The MicroGames came in a 4x7 plastic bag and sold for \$2.95. Even as a starving grad student I was able to buy nearly all of 'em (so did most of my friends) and became a devoted reader of Metagaming's Space Gamer magazine. To this day one of the best, most literate, most thoughtful game magazines ever. (And I had the privilege of editing it, later, with Allen Varney.)

For a diehard Avalon Hill/SPI boardgame fan and TSR roleplaying geek (and starving grad student), the Metagaming stuff, was a godsend. Cheap, easy to learn, fast to play, obviously inspired by



the fiction and movies I loved (instead of classic SF or historic battles...)

The fact that all of this was happening right here in Austin was pretty incredible – you'd run into the guys making the games at the local SF convention! For me (and probably most gamers of the time), Steve Jackson was something of a hero. We all knew the mysterious Howard Thompson (who eventually disappeared – and I mean disappeared as in private investigators couldn't track him down when we wanted to talk about buying the Fantasy Trip from him!). We all knew he was the publisher of the line, but Steve designed the best of the games (well, Robert Taylor's Rivets rocked pretty hard...)

### **Steve Jackson Games**

In 1980, to the glee of many of us game fans, Steve Jackson started his own company, buying Space Gamer magazine from Metagaming and announcing plans to publish his own line of microgames.

Steve bought back the rights to Ogre and GEV from Metagaming, and added two more signature games to the line: Car Wars (1981) and Illuminati. All classics still well worth playing today and all still in print.

Among others, he also added to the SJG line:

- Necromancer (Allen Varney, with whom I had the pleasure of collaborating on many projects)
- Killer (a game I eventually worked on and refused to have my name listed – light bulbs!)
- One-Page Bulge (one BIIIIIG page!)
- Raid on Iran (people thought I was nuts when I set up a Raid on Iran game in my office at UT. “What a tasteless idea for a game!”)



I joined SJG in September of 1983, shortly after this run of creativity in pocketbox format. Ogre/GEV was still selling strong. Illuminati was a cult hit. And Car Wars was paying the bills. SJG was publishing Autoduel Quarterly, Space Gamer, a new mag called Fantasy Gamer and Fire & Movement.

And they were doing all this from a two story home attached to a metal barn just south of Oltorf, east of I35. Horrifyingly, they're still there.

### **How I Got My Job**

I kind of fell into working for them. To make a long story short, I was working my PhD at UT when the RTF department took my class away. I needed a way to pay the rent and, out of the blue, I got a call from a guy I'd worked with at the Daily Texan who was then working as an assistant editor at SJG. They needed another assistant editor. I interviewed with Steve and got the job. I couldn't believe it.

I had no professional experience. I was just a game junkie and Steve Jackson fan. I was also playing in a D&D campaign DM'ed by local soon-to-be-SF-phenom-but-then-newbie-author, Bruce Sterling (who we also have to get out here to talk some time). Steve gave me a shot I probably didn't deserve.

### **The SJG Experience**

I was pretty stunned when I started at SJG. It was...low rent. No computers except an Apple II with visicalc for the finance guy. We had a bunch of typewriters and a typesetter and a tiny paste-up department. Everybody did everything. I mean, when we got a game back from the printer, even Steve helped out with stuffing manuals and maps in boxes. We worked stupid long hours for no



money. (I started, literally, at minimum wage – made more money as a teaching assistant in grad school.) There was one guy who used to show up in the morning, smoke a j and then sit in the barn/warehouse meditating for a couple of hours. There were office romances all the time. We were crammed into a space way too small, way too hot and way too tense as a result.

But we did some great work... And we were the only game in town.

### **The Early 80s**

Steve assigned me to assist the editor of Space Gamer and Fantasy Gamer and had me do development work on a choose your own adventure called Thing in the Darkness by Matthew Costello (who went on to work on Seventh Guest). Steve had to hold my hand through the whole process. I was pathetic. But I learned a bunch from him.

The year after I arrived, we published TOON (originally slated to be a magazine game but I bitched enough that Steve let me and Allen Varney turn it into a standalone game that's still selling today). We released some Illuminati expansion packs, Globbo... And we were planning our move into the big-time with a new roleplaying system from Steve himself (which eventually became GURPS) as well as deluxe, boxed versions of the classic Car Wars and Illuminati games.

We were riding high and ready to take on the world (which, at the time meant going for fourth or fifth place, after TSR and Avalon Hill – we were competing with Chaosium, Hero Games as well as Mayfair, Flying Buffalo, FGU, FASA and a bunch of other little guys).



We had no money for marketing, really (or much anything else – it all got plowed back into the games), so we did a lot of convention stuff – Scott Haring, still active locally, was the convention manager and he kicked ass. We had a fan following wherever we went.

We played games constantly, playtested stuff constantly, churned out magazines – three a month. We fretted over every penny. We all had huge egos that resulted in some amazing arguments and people literally having to be told they weren't allowed in the office anymore and had to work at home because everyone hated them. The business manager had not one but two heartattacks, the first a result of working too hard as we graded the damn driveway! But it was great.

### **Seeds of Greatness**

SJG seeded the Austin area with talent that later contributed to the growth of Austin as a gaming center.

It started with Howard Thompson (mysterious disappearing act notwithstanding) but the Father of Austin Gaming is absolutely Steve Jackson. Steve gave so many people their start in gaming it's not even funny. I started there. So did

- Allen Varney (worked with me at LG Austin)
- Aaron Allston (designer of Savage Empire)
- Jeff George (Bad Blood, Wing Commander, Martian Dreams)
- Steve Beeman (Ultima VI, Wing Commander II, co-founder of Illusion Machines)
- Bill Armintrout, Denis Loubet, David Ladyman and many others who went on to bigger and better things in electronic gaming...



(We HAVE to get Steve in here some time to talk about the early days, the Secret Service raid and his attempts to get into electronic gaming himself...)

Okay, so how does all this old-timey stuff tie into anything relevant to all of you?

Well, in a Kevin Bacon game way, there came a day when Steve Jackson met Richard Garriott and Austin gaming was changed forever.

Honestly, I don't know exactly when Steve and Rich met. But I do remember my first, brief encounter with Lord British (bet even he doesn't remember this): I was sitting at my crappy desk in the crappy SJG office when a sleek black sportscar purred into our gravel parking lot in a cloud of dust. No one I knew could afford a \$25,000 car like that!

Shortly thereafter, in walked a guy in full geekchic regalia – black pants, black form-fitting t-shirt, braided blond hair, and ten pounds of more jingling jewelry.

Frankly, I thought the guy was kinda weird.

That was in 1984, I think, when Origin licensed Ogre and Autoduel and was making computer games based on them. The Big Time!

I have no idea how those games got made. I was the editor in chief at SJG by then but I had nothing to do with the process. It was all Steve.

I will say, I played both games and thought Autoduel was incredibly cool – even now I find myself wishing someone would make a game like it. And Ogre, man, was the AI tough. In all the



years I worked for Steve, I never saw a human beat him at Ogre but the Ogre computer game could do it. (Dallas Snell, later VP of Product Development, did the AI code.) Too tough for me.

## **ORIGIN**

Though Richard had been making games for years (a story he can tell himself some time), Origin didn't come into existence until 1983. For reasons I'll never understand, Texas-boy Richard set up shop in New Hampshire. (I blame his brother, Robert...)

## **Authors**

From '83-'89, Origin games were made in this weird, unworkable system involving freelance "Authors" (like Richard, Chris and others). These authors got office space at Origin and a complete staff of Origin programmers, artists, designers, writers, testers, etc. Yet they still got industry standard independent developer royalty rates. Pretty good deal!

That was the situation when I signed on in 1989 – employee #26. But, let me tell you, no royalties for me!

## **How I Got My Job**

The opportunity to sign on with Origin was total luck. I was up at TSR, manager of the game division. October of 98 I came back to Austin for Armadillocon, where Richard and I were on a panel together. I don't even remember what the panel was all about. I just remember Ultima 5 was in development and the way he was talking was making me incredibly jealous.

At TSR, we were working with SSI on the first D&D licensed computer games and I hated them. They were going after all the uninteresting aspects of roleplaying. I'd played Ultima IV and now



Rich was talking about U5 and it was so The Right Thing to Do. He clearly understood roleplaying. His ambition was inspirational.

But I had a job and, after the con, I went back to Wisconsin, even more convinced the SSI games weren't the way to go. A couple months later, I was sitting in my office, contemplating a new game system, trying to decide whether to use percentile dice or 20-siders and realizing I was in a dead-end business.

That was when the luck happened. I got a call from Denis Loubet, ex-SJG artist and then Ultima artist at Origin. He said Origin was looking for an AP and was I interested. He'd talked to Rich and I could get an interview if I wanted.

I was on a plane a couple days later.

The interview process was grueling -- 9 hours with Dallas and after that, a blur, as I talked with Richard, Chris Roberts, Todd Porter... I was completely blown away by what everyone was trying to do. Everyone was as ambitious in his own way as Richard.

I got an offer -- took a 20% paycut and considered myself lucky.

### **Early Days of Self-Publishing**

When I started, Origin was in its early days as a publisher.

There were six authors working for Origin:

- Todd Porter (Knights of Legend)
- Stuart Marks (Omega)
- Greg Malone (Windwalker -- big-head sequel to Moebius)
- Paul Neurath (Space Rogue).

The company was trying to put those projects to bed.



The other two authors were hard at work, too. Richard was thinking about Ultima VI. Chris Roberts and Jeff George had an idea that turned into Bad Blood. Jeff and I did the bulk of the work on that one, freeing Chris to start working on Squadron, which became Wing Leader, which became Wing Commander.

### **My Role in All This**

Dallas Snell, the VP of product development, threw me in the deep end and had me work on almost all of those titles.

I was Associate Producer for both Richard and Chris on their projects. (In other words, I worked on schedules, managed documentation, dealt with contractors and argued – a lot – trying to keep two creative wackos from spending us into bankruptcy. That was when I learned that you're a successful producer if you win three arguments out of ten with the project visionary!)

I flow-charted the Space Rogue plot and wrote first-drafts of all the conversations, with Paul Neurath.

I was responsible for the documentation on Knights of Legend.

(And I worked with Stuart and Greg on the sequels for their games, which didn't happen – Greg's in particular would have been pretty damn revolutionary...)

Those were heady days at Origin. Ultima VI was a revelation and working with Richard taught me more than I can tell you. I came in as the papergame guy who was going to show all these computer game geeks what interactivity was all about. I quickly got over that idea! Learned more in those first few months, from Richard, Chris and Paul, especially.



## Ultima VI

Richard and I spent several weeks basically holed up at his house (a theme park-like place that blew me away). We ate a ton of Chinese food and came up with the characters, quests and storylines of U6.

- He beat into me the power of simulation and the importance of offering players multiple solutions to problems. I still live by those ideas.
- He taught me about the limitations of the medium and how cool it could be to work within them. (I was used to the limitless space of papergaming where you could literally forget to include a critical combat table from a rules set and still have a playable game...)
- And I still use much of Richard's approach to design documentation (much to the frustration of many who work with me!)

Chris taught me about

- the potential of the medium and how much growth technology and imagination together allowed.
- He was, despite his inability to actually hit a shipdate, a tremendous organizer of people and personalities and schedules.
- He was the first person I know who used an actual project management program (probably because he was the first person audacious enough to make a game complex enough that it required one!)

Paul showed me

- the need for rigor and algorithmic approaches to design.
- Designing a game, I learned, was (surprise!) more like spec'ing out a piece of software than it was like anything I'd ever done...



- You don't want to know what he did to my pitiful flowcharts and branching conversations!

There are a million stories:

- *Producer's responsible for everything!!*
- Shipping U6, one of Origin's first PC titles, and the very first that could be installed to a hard drive only to discover the very first day that we hadn't ever tested SAVING to a hard drive. And it didn't work.
- Or realizing that U6 had a fatal bug that almost every player was bound to see - Cross a map region boundary with your party aboard a ship and the boat would split into pieces, the party members would disappear and lord british would appear as some random object in the world. My personal favorite was the time LB turned into a decorative sword found inside a chest. The sword followed a player around, talking to him as long as he continued to play the game!
- The joy of watching a tester come to a point where Richard and I had FAILED to come up with a second solution to a problem (the portcullis, sherry the mouse, telekinesis situation...)
- The 24 hour, seven day a week crunches that lasted for months... Let's not talk about Serpent Isle or Strike Commander!
- Dallas Snell issuing a decree in 1991 that "The 24-hour work cycle has outlived its productivity." After that date "only" 10 a.m. to midnight crunches were allowed. Until the next crunch...
- Multifloor lasertag games in the middle of the night (building management loved that!)
- Supertalented guys having all sorts of nervous breakdowns. (I'd get sued if I told you about any of that!)
- Early hints of where the industry was going, when folks like the Today Show started coming by to do segments about us...
- *Tearing down bunk beds*
- *Photo covers (old, fat, bald barbarian, Biker dude Space Rogue)*



- Trips to CES before everyone had big screens and badass sound systems and our competitors screamed at us to turn the volume down!
- Chris Roberts coding all night in a hotel room to get Wing Commander ready for CES (and keeping me up!). His computer banging around in the back of a van as Fred Schmidt drove like a madman so Chris could tweak the demo for day two by coding all night again!
- A writer claims to be the world's biggest James Bond fan who will, someday, write James Bond novels, for real, instead of for fun. Yeah, whatever. He's now the official James Bond novelist. He's on like his sixth! And we all thought he was nuts to leave Origin!
- Mike McShaffry's 1991 Point of Origin editorial about the perils of rapid studio growth and what to do about it. None of us listened. You could post that same editorial at any development house in town today and it'd be as relevant.
- People showing up (or ending up) nearly naked at some of Richard's parties (which wasn't all that surprising) or at the office (which was).
- The thrill we all felt in March 1992 when Underworld's initial sell-in hit 25,000 units (5,000 higher than projections!)
- The announcement in Point of Origin (this was news!) that Origin was buying itself AND LookingGlass 28.8 modems to "cut the download time for new versions of System Shock in half!"
- The goofiness of supporting VR headsets on System Shock and Wings of Glory. (Sitting the Software Etc. buyer down in a Thunderseat, tying a scarf around his neck, plopping a Forte VFX1 headset on him, and cranking up Wings of Glory, a WWI flight sim. And THEN turning on a big box fan in front of him, so he could feel the wind blowing through his virtual cockpit. Increased his order big-time!



We were always on the edge of going out of business. But that was okay -- it was a business driven by enthusiasm and imagination more than by marketing and sales. It didn't seem that way at the time, but it sure was fun. But more than that, it laid the foundation for a thriving industry.

### ***The Legacy of SJG and ORIGIN***

In 1983, when I started at SJG, there were no more than 20 people making a living from games in Austin.

By 1989, when I signed on with Origin, there were about 50.

Origin grew to over 100 in the two years that followed.

By 1995, a couple of years after EA bought Origin, the company was over 300. We had over 75 QA and CS people alone.

In 1996, when I left Origin, I made a list of all the game companies in Austin and came up with 26 names. All of those studios were either started by ex-Originites or drawn here by the pool of talent created by Origin.

Since then, the number of studios may have dropped, and the number of people in the business may be lower than it was at its peak -- we're probably down to maybe 700 people in Austin's gaming community. But we're still a power, a talent center. Richard Garriott's mark on the game business goes far beyond the creative influence of the Ultima series. His influence on the Austin economy has been profound -- thousands of highly paid game developers and their families have come here because of him).

But it's worth remembering that Austin's gaming roots go deeper. Would Richard have set up shop here if not for his experience with Steve Jackson Games? And would Steve have done what he did



without Howard Thompson and Metagaming? Let's see if we can get them up here some time to tell their side of the story.

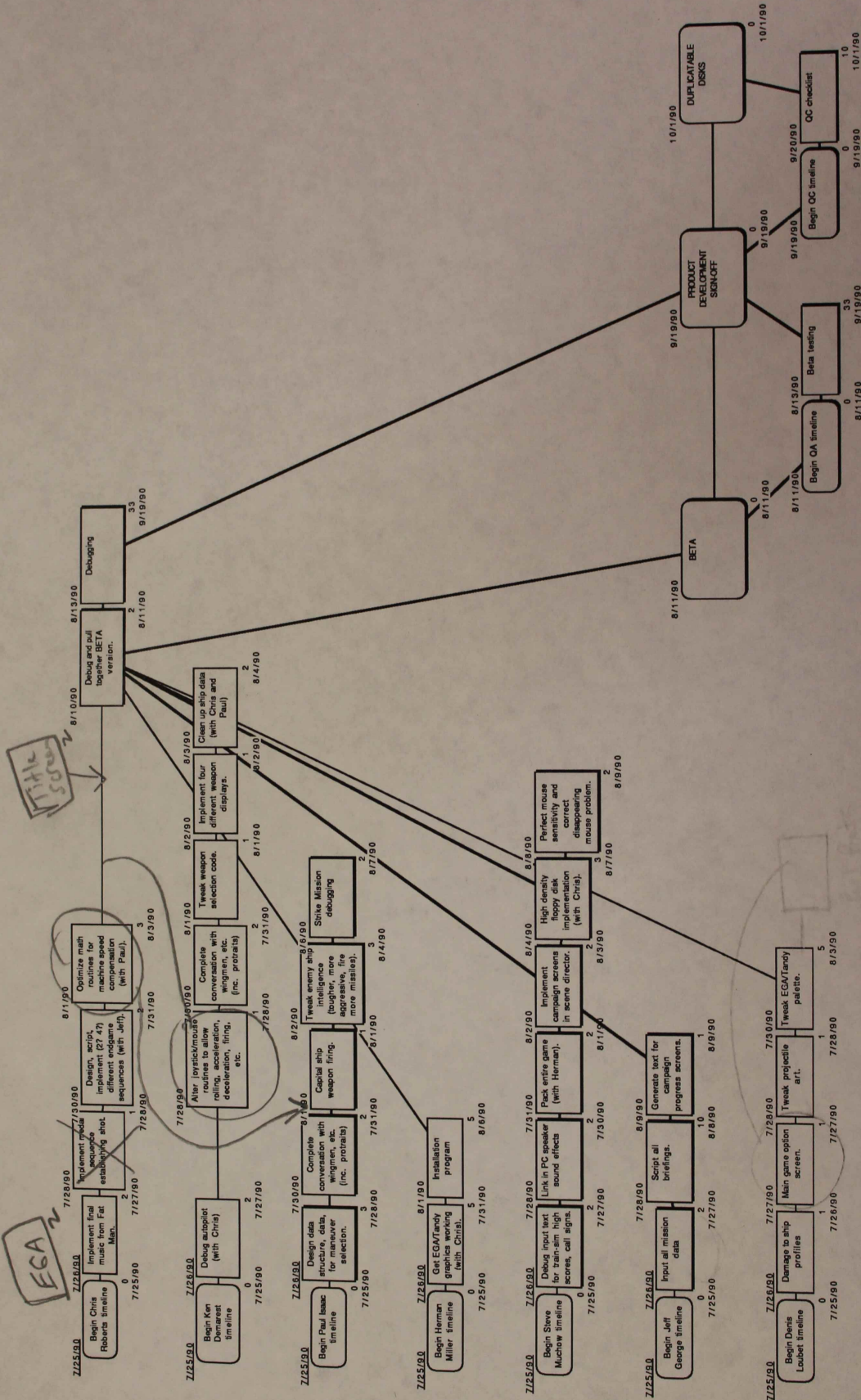


# WING COMMANDER

Shutdown Schedule v1.1

7/27/90

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①) Avenstar



22) Omar Tyran

