J. Margolin

Inter Office Memo

To: Support/Research Staff

From: Carol Martinez

Subject: Game Proposal/Technology Meeting Notes   Date: Feb. 16,1983

Attached are copies of the notes I took. If you would like to have me add
anything or if I need to make a change in the existing notes, please let
me know.

GAME PROPOSAL/TECHNOLOGY MEETING
February 10, 1983

General

Jed Margolin suggested:

1. A monster game that would include a menu to select different body
    parts. After assembling a monster the player would play against
    monsters created by other players. If their monster won, it would
    remain in the program to fight future player's monsters.

2. Cockroach Wars. This is a two player competitive game where each
    player controls an animated, articulated cockroach. This would be a
    third persons game using a Color XY or High Resolution Raster. The
    action takes place on several scrolling playfields:
           Under the kitchen sink
           Under the refrigerator
           In the pantry
           In the bathroom (don't get trapped in the bathroom)
    As the two cockroaches fight they have to avoid periodic natural
    disasters such as a human exclaiming, "Look Fred, we have
    cockroaches, again." The players would then have a limited amount of
    time to scurry to safety.*

    If cockroaches are too distasteful, use mice.

3. Betty Boop. This could be a third person game, possibly using Color
    Raster, Macho 44, Speech Synthesizer and/or a video disc. The object
    of the game would be for the player to lead Betty through a series of
    adventures, with her talking and exclaiming Boop-Boop-A-Doop at
    appropriate times.

Erik Durfey suggested a driving game along the line of Malibu. Hardware
might include the use of a projection mirror or video disc. Another
possibiliby mentioned was a "flying spot scanner" although there could be
an axis problem.

Dave Westerman suggested producing a motorcycle driving or motorcross
game.

Mike Hally brought up an idea that Mike Jang had mentioned during the
recent brainstorming session. A booth with a line to be used like a tight
rope was the idea and on the sides of this booth would be a video
projection of scenery like the Grand Canyon, etc. When you step off the
line the picture would show a falling squence. Comments: this would be
great for a bar (and to test sobriety).

Rick Moncrief brought up the point that Support/Research needs to use
technology to produce good games. The group has the capability within
itself. He suggested a Dungeons and Dragons type of game.

Jed Margolin felt an update of Pong with a face picture on the ball or select a face might be good.

Greg Rivera felt that younger (teenagers) might go for a game that produces some kind of award (status symbol). This could include:
1. A picture of a mag showing how far you got in the game.
2. Erik Durfey suggested a metal token.
3. A piece of paper with ?
4. The game could dispense a sticker that kids could stick on their jeans.
5. Upon reaching a certain level, the player could write graffetti on the screen or the player could modify the game program. This modified program would remain until another player gets to a higher level and can change the program.

Other ideas mentioned were:

1. Use a mini cassette tape recorder for pictures.
2. Use a audio high score table where you could say your name or whatever (in 5 seconds?).
3. Put in headphones. This would require a stereo jack on the game. WE NEED TO FIND A GOOD JACK.
4. Two player game in one cabinet (two displays).
   This could include a game like Joust (Bruce Hartman mentioned that this could be used for a first person version where the player could see horse bearing down on him) or a Pole Position type driving game.
OR Hook up more than one game together. The question was raised, "what cost/technology would be necessary?" The games would have to "talk" serially to communicate game play. At present possibly parallel interface with "flanging" (sp?) could be used. With both of these systems the player would have the option to play either the computer or another player.
5. On Star Wars add a point of view switch so the player could have the option to play first or third person.

At this point of the meeting, Rick Moncrief asked that everyone suggest at least one game that they would want to build if they wanted to make lots of money. Below are the responses.

R. Moncrief   He said he would build a multi-player game with another cabinet. This would be a first person video disc game that you could play by yourself or compete with others. Use good sounds, something in the seat for physical feel, feedback in the control possibly by using a steeper motor or maybe a DC gun motor so steering wheel wouldn't spin. Most important, he would model the car after a physical one, take a stab at a car simulator leading to a response like a 280Z, Porsche, etc. so you could tell different road surfaces.

J. Margolin   Jed suggested doing Tom Cat with new hardware. There are

three basic sections: the Host Processor, the Vector Generator, and the Aux Processor.

1. The Host Processor will be a 16032 or 68000 and will be supercharged with the Warp Speed Matrix Processor. (Perspective division will be done by the Host.) The Host Processor will do all the 3D math and deliver to the Vector Generator an updated point table for each object.

2. The Vector Generator will probably be similar to the analog type currently being used; however, it will contain the algorithms to connect the points for each object so that the Host Processor will not have to spend time formatting vectors.

3. The Aux Processor will be a 6502 or a 6809 and will do:
    A. Sounds
    B. Speech
    C. Coins
    D. EAROM stuff
    E. Pot reading with A/D Converter
    F. Communication between games

Using a separate sound board and ABZ controls suited for first person games were other ideas.

Other games Jed suggested building were a redone Battlezone and a 3D Time Pilot. Player could start out as infantryman and move up in equipment as score goes up.*

Destruction Derby might be another game that would be worth building. The player could put together their car in 10 seconds. That could create a problem for the slow player who might end up with only two wheels! The game could be first person and the view could change. In order to see other cars coming from behind, a top quarter of the screen could be dedicated to a rear view mirror.

P. McCarthy   He's feeling was an elimination game would do well. Something along the lines of Superbreakout and Pac Man. It could be easy to control how fast game increases difficulty. Weapon would be lazer-like. Idea of the game would be like a super Tempest with waves of objects. Hardware would include a good Color XY or a display that can unit Raster and XY (RCA Cody a possibility).

D. Simard   The main point Denny made was that the game should be very realistic so the player believes they're actually doing what the game is about i.e. flying, driving. Better the sensations, physical and aural (or was that oral?).

B. Hartman   He would change industries (or "broaden base") and make computer graphic and computer displays with a slant towards the mini computer or hobbyist.

J. Castillo   Some form of air racing game with crude instuments was
              Joe's idea. The game play could be similar to the Reno Air
              Race (WWII vintage airplanes). This would be a 3rd person
              game where the player would fly around other planes.
              Hardware would include a Raster display. The controls
              would include a joystick and instrument panel (skip/skid,
              airspeed). Also you could put the face of the player on
              the pilot and when the pilot crashed, you could have a
              death certificate printed out. Other features could
              include random speech interjected throughout the game play
              and the ability to make obstacles for other players.

W. Jones   A driving game that included pitstops (i.e. if you floor it
              you need more fuel or tires) was Wyatt's idea. And/or you
              could switch vehicles and add waves to make the game
              harder.

T. Rice   Tom felt a game that is easy to pick up on for someone who
              is not as skilled has potential. It should have increased
              realism (whiff of oil if a driving game). It would be a
              good idea give the players the option to select a training
              course or the first wave could show the player how to
              play the game. For two quarters you could give the player
              advanced hints. Also the game could tell the player what
              he is doing wrong.
              The actual game idea Tom had was a game based on the
              bullrun in Spain. The player would be the one chased.

At this point Earl Vickers suggested an interface device for home
appliances and home computer. He thought it would be a great idea if all
appliances had voice and face recognition features. That way, too, all
the appliances could talk to each other. (No need to worry about lonely
appliances again!) Also some kind of device to talk to plants or a device
so that plants could talk.

G. Rivera   Greg wanted to do a game that he would like to take home.
              Another suggestion was to use comic book characters
              (Superman, the Hulk, the Green Lantern, etc.). An example
              of a game play using the Hulk was if you run into trouble
              that you can't get out of, you turn into the Hulk. You
              only get so many Hulks so the object would be to get out of
              trouble. At the end of the game the Hulk would run off to
              the high score table.
              The game idea he liked best, however, was a first person
              howitzer game which would include:
              —more people
              —persons furthest upstream would get more fire
              —good graphics
              —faster
              Another game idea was a game similar to Liberator except
              the player could rotate around the surface (by moving
              stars).

D. Westerman   Dave thought games aimed at teenagers would do well
               especially driving since that's what most teenagers would
               most like to do. The game could include freeway driving in
               a sedan car with various types of hazards such as cops,
               truckers, pot holes, etc. The player could advance to
               different types of vehicles i.e. from a sedan to a 280Z
               than to an 18 wheeler. A CB could tell you where the
               hazards are. Jed thought a cross country driving game
               might be good. There would be no actual starting point.
               The player would just put their quarter in and come in
               where the play is. This would be a good two or more person
               game. Another possibility would be to let the player
               create their own game.

N. Avellar   Norm didn't pinpoint a specific game. Instead he suggested
               a two player game that had head to head competition such as
               a sports game (football or "Jacuzzi Mingling").

E. Durfey   To get a medium speed raster up and running was Erik's
               first thought so he doesn't lose his hearing. Or to quiet
               down oscillation noise.
               An Indy 800 type of cabinet (eight players) would be good
               for Demolition Derby. Instead of damaging cars just bump
               like two player Warp Speed.
               He also thought a third person fun house game (Raster)
               would be good.

E. Vickers   Earl said he would like to do a 3D stereo style game (like
               Subrock) that would use shutter type technology. With a
               higher speed display it would be possible to speed up the
               shutter (with a faster interlace).
               Other ideas included:
               1. Computer dating for bars where you could put your face
                   on any part of someone else's body (video). Hook up
                   machine so it could produce a hard copy.
               2. Combination video game/toilet paper dispenser. The
                   control could be the flush handle which would operate
                   like a joystick.
               3. Attract mode plugs. These could be used for
                   advertising our latest games or other companies
                   products.
               4. Hummer. This would be a device that plugs into a
                   synthesizer so you could control pitch which would
                   control game.
               The game idea Earl suggested was something along the lines
               of bumper cars combined with pool (where how you hit the
               car would make a difference where it goes) but it would be
               in real time and be a multi-player game. You can gain
               energy during a collision.

At this point Tom Rice suggested a skateboard or surfer game with a sensor
underfoot (some type of pressure sensitive metal).

Greg Rivera liked the idea of a control that you can point around like a wand. Other people thought this might be dangerous.

T. Patten   Tom agreed with Pat about a game along the lines of Pac Man and also suggested a maze game where the maze keeps changing and the player can get trapped in the maze to keep the game moving fast.
He also mentioned a 3D game using multiple shuttering.
(Rick would like to get a Subrock game back to try this out. Mike Hally said he would work on it.)
Tom like the idea of a pylon race (air race) because there are so many ways to crash third person.

M. Hally   Mike favored a game that was simple, cute and graphically pleasing to the female players. He's currently working on an idea which is a rip-off of the Wizard of Oz and other famous adventure stories. The object of the game would be to rescue the princess. (You are Prince Atari.) At the beginning of the game it shows the princess being taken away by the bad witch to a distant castle. In order to rescue her, Prince Atari must travel through forest, grassland, mountains. Along the way you can pick up lucky clovers but as the prince takes more time, he increases the chance that the witch will change him to a lower level of intelligence (i.e. a woodsman, next to a peasant, and lastly to a frog). This game would use a video disc backdrop and forth scrolling. The pace of game would be determined by the characters ability. .

C. Martinez Carol suggested a game called Motherlode which as the name implies would be a mining game. This would be a two player game where the players compete to uncover the vein of gold. The vein would be progammed to move to different places from game to game. Play would be similar to Breakout. Of course the player would have hazards and obstacles such as avalanches, environmentalists (especially if using the hydraulic method of mining), and hard rock. In addition, the player would have to move the found gold to the assay office without being robbed. The winner would be shown in a mansion on the top of Nob Hill (surrounded by Gays?).*

*With the player's face on it.

CHART A

FEATURES AND QUALITIES OF A SUCCESSFUL GAME

- SKILL TO ATTAIN A SPECIFIED OBJECTIVE(S)
- INCREASING CHALLENGE
- INDICATORS OF LEVEL OF PERFORMANCE (GRAPHIC MEASURE OF ACCOMPLISHMENTS, SCORE, OR GAME TIME)
- FEASIBLE IMPROVEMENT
- AN ATTAINABLE GOAL, PURPOSE, OR SENSE OF ACCOMPLISHMENT
- COMPETITION AGAINST OPPONENT, COMPUTER AND/OR ONESELF
- EASE OF COMPREHENSION INITIALLY
- ELEMENTS OF RANDOMNESS, VARIETY AND ACTION
- NEW/UNIQUE THEME OR CONCEPT
- FANTASY ELEMENT/STORYLINE
- OFFENSIVE AND DEFENSIVE ELEMENTS
- PLAYER IDENTITY THAT ASSOCIATES THE PLAYER AGAINST OBSTACLES (OR PERCEIVED ENEMY)
- AUDIO AND VISUAL EFFECTS TO REWARD OR PRESENT SITUATIONS TO THE PLAYER
- CONTROLS THAT COMPLIMENT GAME PLAY
- VALUE IN GAME TIME FOR MONEY SPENT
- GRAPHICS WITH 3-D PERCEPTION AND DETAILED PITCURES
- VARIED LEVELS WITH DIVERSE SCENES, PARTICULARLY ON CHARACTER GAMES

MOST RECENT HITS WITH LONGEVITY ARE:

- OF UNIQUE SUBJECT MATTER/THEME
- SIMPLE TO LEARN/PLAY
- UNCOMPLICATED CONTROLS
- EXCELLENT GRAPHICS

CHART B
CHALLENGE

A. GOAL(s) WITH UNCERTAIN OUTCOME(s):

    'VARIABLE DIFFICULTY LEVELS

    'MULTIPLE LEVEL GOALS

    'HIDDEN INFORMATION

    'RANDOMNESS

B. INTRINSICALLY MOTIVATING ACTIVITIES:

    'STRIVING TOWARD NEW SKILLS

    'ABILITY TO INCREASE OR DECREASE THE LEVEL OF CHALLENGE
    IN ORDER TO MATCH SKILLS WITH GAME PLAY REQUIREMENTS.

    'CLEAR CRITERIA FOR PERFORMANCE AND ABILITY TO EVALUATE
    PERFORMANCE AT ANY TIME.

    'CONCRETE FEEDBACK TO THE PLAYER TO DETERMINE HOW WELL
    HE IS MEETING THE PERFORMANCE CRITERIA

    'BROAD RANGE OF CHALLENGES POSSIBLY, WITH DIFFERENT
    RANGES OF DISCOVERING MORE COMPLEX INFORMATION

CHART C

TOP GAMES

1981 · - 1982

(BASED ON EARNINGS PERFORMANCE)

CATEGORY	1981	1982
MAZE/CHARACTER GAMES	PAC MAN FROGGER DONKEY KONG	MS. PAC MAN DIG DUG DONKEY KONG JR. JUNGLE KING *POPEYE *TUTANKHAM *Q-BERT
SPACE/SHOOTING GAMES	DEFENDER SCRAMBLE BERZERK *AST. DEL. GORF GALAGA *SUPER COBRA	STARGATE ROBOTRON ZAXXON FRENZY *MOON PATROL
DRIVING GAMES	MONACO GP	TURBO POLE POSITION
OTHER	CENTIPEDE *QIX TEMPEST	MILLIPEDE JOUST TRON *FRONT LINE *ALPINE SKI

*LONGEVITY LESS THAN OTHER GAMES OR YET UNKNOWN

CHART D

"GAME YEAR" TOP EARNERS

10/81 THROUGH 9/82 (BASED ON PLAYMETER AND REPLAY OPERATOR POLLS)

(DOES NOT INCLUDE RECENT AMOA)

RELEASES

GAME	# OF MENTIONS IN TOP FIVE
DONKEY KONG	24
PAC MAN	19
MS. PAC MAN	18
TURBO	14
TEMPEST	12
ZAXXON	10
DEFENDER	11
CENTIPEDE	11
STARGATE	9
ROBOTRON	7
GALAGA	6
OMEGA RACE	6
FROGGER	5
SUPER COBRA	5
TRON	4
DIG DUG	3
KANGAROO	2

OUT OF 180 POSSIBLITIES OF MENTION