

MG Interview: John Calhoun

by Don Henson

John Calhoun is a name that has been around Mac gaming since almost the beginning of Macdom. He is probably best known for Glider, which is a unique implementation of computer gaming, that started out as shareware and will soon be released as Glider Pro™ (probably by the time you read this). Calhoun has also written Pararena among other game and has been involved in advising others on many games.

IMG: What started your interest in computer game programming?

Calhoun: Just simply a love of technology and art — games are an obvious place where these things come together. But long before programming, I used to paint and draw a great deal (almost exclusively the female figure though, not paper airplanes or whatever). I began writing games though because it wasn't that difficult, it was fun learning, and I had a lot of ideas for games.

IMG: What was your first computer game that you programmed?

Calhoun: I don't know if you want to go back to the Commodore PET or the Apple][. On these machines though (since I didn't own them) I more or less just wanked around. Glider 1.0 was my first "real" game though (on my first very-own computer). That was shareware (\$5, I think) back in 1986 maybe.

IMG: What do you like about this new version of Glider as opposed to previous ones?

Calhoun: Two things mainly. One is just the obvious technological kick into the 90's. Not that there's anything cutting edge about Glider Pro, but it's a lot easier these days to expect 256 colors (or at least 16 grays). You can assume more RAM and go a little further with sounds. Larger monitors are so commonplace that it's worth my while to make the game take advantage of this. The old Glider was fairly dictated by the Mac Plus (screen size and bit depth) and the 16 colors in the game were a sort of bone for the color Mac users. I guess the lowest common denominator considered for Glider Pro was a 4 meg, 16-gray PowerBook (or on the desktop end, something like the IIsi).

But the primary thing I like about Pro is just the elegance of it. Not in a smart-ass way. I like to look at games holistically and let the metaphor of the game dictate the interface and such. My nightmare-game is one that looks like a bunch of pieces of code borrowed from other places and sort of forced together — a big kludge, a big crawling horror. In a lot of ways “Hellcats” was like this — great flight simulator model though. An elegant implementation doesn’t add a feature unless the game metaphor begs for it. An example of a standard game feature that I instead took issue with was the Standard File dialog — part of the Mac Toolbox. Standard File in general can look absolutely blasphemous in a game — and for a game that has “simplicity” as one of its driving metaphors, the Standard File can be a little contradictory. For Glider Pro I went to any length to completely avoid it. So selecting a house to load brings up a Finder-like window showing you all the houses in a sort of flat-file grid of icons — just click on an icon to play that house. Glider Pro has a lot of that simplicity stuff. Very few menus as another example. Hide the editor portion of the game from the play portion. No hierarchical menus.

IMG: If you had unlimited development time and staff what features would you like to have included?

Calhoun: Nothing really. Swear to God. I can envision a sort of Pro-Pro version that has more unique backgrounds and objects — maybe as a CD ROM version perhaps, but I didn’t find these things wanting in Glider Pro as it stands. As well, in as much as you can add your own custom backgrounds to each house, there wasn’t an immediate “crying out” for that one. Maybe a networked 2-player version would have been nice — it currently does 2-player games but on the same machine.

IMG: How long do various parts of the game development and programming process take? (It varies with game size and complexity of course).

Calhoun: Yeah, that’s a tough one. As per volume, a good portion of the code comes from library functions that I’ve have created, maintained and polished for several years now. That portion of the game is already there before I begin. Graphics can take a couple months if I just sat down and did them, but usually the graphics work is created on a per-need basis throughout the development of the game so it doesn’t fit into a nice little time frame. Sounds are done in a similar fashion but clearly are quicker to create. Usually though there is an initial push to get something going on the game as soon as possible. Unfortunately, for Glider Pro I had to write a good chunk of the editor portion of the game before I could get anything else going. Quite often though, something is going within a week of beginning a game. When I did the shareware version of Glider — there was a paper airplane wafting on a column of air before there was even much of a menu bar. At that point it’s little more than a shell with some sort of input and animation. It’s critical to me to do it this way because you may discover at this point that game isn’t going to work. If you scrap the idea you won’t have wasted all this time with high scores, saved games, etc. I tend to start about 5 game ideas this way before finding one I feel comfortable going to completion with. But back to your question, I might say that about 80 percent of the time is spent on the little details and polish with the initial 20 percent producing the “meat” of the game.

IMG: Do you plan to market extra scenarios (houses in this case)? If so how soon?

Calhoun: No, I don’t plan to. I never plan anything. If it’s received well and people are begging for new houses or backgrounds, I’m sure C&G will talk about a More Glider Pro or whatever. Still, for those with net-access, there ought to be plenty of houses show up that others have done. I’m aware of at least five houses being created by beta-testers even now — a couple of which are done.

IMG: What are some of your favorite computer games?

Calhoun: Easy — “Prince of Persia.” Nothing has touched this game. It embodies elegance. It’s absolutely tied up into its own metaphor — which is seamless. It’s gorgeous — internally consistent — original. I’m a big fan of “The Arabian Nights Entertainments” and the old silent version of “The Thief of Baghdad” and this game comes close to capturing the same spirit. If it had any shortcoming I think it’s all the keys you have to use in order to control your player — perhaps that was unavoidable though.

“Eric’s Ultimate Solitaire” has about the slickest front end on a card game I’ve seen — also an elegant implementation. And also, all the pinball games that Little Wing and company have put out (although each of their pinball games have had a few annoying things about their interface).

IMG: What games have approached new levels of being the “perfect” game?

Calhoun: From the above question — look at “Prince of Persia.” “Prince of Persia 2” I think kept in the same spirit of “Persia 1” without violating the elegance of the first game. I think perhaps “Persia 2” may even be a little better.

IMG: What is your view on the current directions of Mac games?

Calhoun: I’m not too enthusiastic. To some degree you have but to look at the PC game market to see one aspect of where Mac games are going. On the PC side I see large committees turning out mediocre games with lots of fluff and some sort of media-tie with “Terminator 2” or whatever the current big budget film or trendy TV show is. You know all the animation sequences and such that take 18 megs of disk space and make great screen shot fodder (and then you buy the game and find the “actual game” is little better than a wireframe flight simulator). Someone said once that a camel was a horse designed by committee — you know? I could go on and on about this.

Essentially, I’d like to see originality remain the underpinning of a game. We’re all familiar with those “jump and kick” games in the arcade, right? Who was first with that? One of those simple Kung Fu games where you’re two guys on a log? Or maybe “Altered Beast” was the one that really catapulted the whole genre into existence. But why then does that become all you see when you go into an arcade these days? I hate drawing imaginary lines and saying this time was a golden age, but, honestly, when I was growing up and hitting the arcades, there seemed to be more of a diversity of games. God, “Stun Runner,” “Hard Driving” or even an old oily “Xevious” is a breath of fresh air when you’ve seen your 10,000th Mortal Kombat wannabe.

To me (although I thought Star Wars was a brilliant vision) the coming of “Rebel Assault” to the Mac is something of the death knell. Big bucks and Hollywood don’t a good game make (they don’t even make good movies 90 percent of the time). The lone game developer like myself is just about a thing of the past.

But as I said, I could go on and on about this.

IMG: What are your views on copy protection?

Calhoun: I don’t know. It’s an odd thing. I pirated software when I was a student in college, but I also took cigarette butts out of ashcans and rolled my own cigarettes with pages from a Gideon’s Bible. I did buy a used copy of “Borland Pascal” from a professor for \$40 to get started programming the Mac and a lot of the utilities (like ResEdit) were free. But until I

came into some cash, there was no other way I would have ever seen the software (the Mac Plus I picked up on a student loan that I'm still paying off).

Mind you too, as soon as I did come into money I bought everything. Even if I already had it as pirated software. So, I guess I come down like this: if the person wouldn't or couldn't buy the software anyway, where's the sales loss? Sadly though, I think most of the lost sales come instead from a sort of lazy copying. You know, my sister gets a copy of something from her boyfriend's friend. She could buy the software, but. . . It's almost that some people are such novices, that they really don't see anything wrong with it. So, I think some way to spank these people's hands is certainly in order. But don't spank the legitimate owners of the game. I think I've been able to get it just right with the copy protection I've done. Insert the master disk once when you first install the game. This is a reasonable spanking that I don't mind myself as a user. It doesn't come up and bother you every time you play, it doesn't keep you from putting it on your PowerBook as well. . . It's even pretty easily defeatable. (I thought that I pretty much invented it when I did "Pararena 2.0" but I've seen lots of games like that lately — I can't believe they got the idea from my game.)

But anyway. The (dare I say it) hackers don't buy software and will hack anything you can throw at them. I know, I know, not all people that call themselves "hackers" are into that stuff. It reminds me of the "skinhead" terminology in the early 80's punk circles — there were good skinheads and bad skinheads you know.

Anyway though, I myself hate copy protection that is intrusive and I tend not to play the games unless they're really good (now there's something I forgot to spank "Prince of Persia 2" for). I can't think of the last time I played "Pathways."

IMG: How is the market likely to change in your view over the next few years? Where are Mac games going in your opinion?

Calhoun: Well, I sort of beat that one to death in an earlier answer. I've always thought that computer games followed arcade games with arcade games leading in the hardware department. It seems these days the rift is narrowing between the home machine hardware and the coin-ops. Perhaps my Power PC is even a little faster than many machines in the arcades. Anyone know? I've seen some impressive numbers of polygons flying about in games like "Virtual Racing" but I think a Power PC could pull that. But when the arcades fail you, look to the PC. CD ROM will be bigger (that's not any kind of an impressive prediction though — maybe if I had said it five years ago). Faster, bigger, more — you know, games aren't rocket-science.

IMG: Where do you see yourself in this scheme of things in a few years?

Calhoun: Who knows. I don't have any plans to do another computer game ever. I may, but I don't have any plans too. I'm a little tired of it and want to go into AI or robotics or play in a band or something. Too much of it is just plain tedious.

IMG: What will the PowerMac and its speedy RISC chips change in the abilities of games?

Calhoun: I flip flop on this. I could be a pessimist and say, "Nothing." Because a lot of great games have had nothing to do with speed — "Sim City" comes to mind — "Prince of Persia" for that matter. Obviously simulators of all sorts will become more and more impressive.

You know, it's funny about simulators — they have as their underlying goal nothing short of reality. Ever since SubLogic's wireframe game they've been games that wanted to be real.

Kind of a Pinnocchio thing. It's admirable. In fact, in as much as they're always walking on the edge, you can gauge the state of hardware and computing in general by remembering just how far they've come. And no doubt they'll just keep merrily going along. They'll never get there of course. I suspect Bruce Artwick thought, "Wow, now this would be it if only the scenery was solid." And then they add solid-fill polygons and it's, "If only it were shaded too." And Gouraud shaded, and textured, and voxels, and raytraced, and stereo, and 3-D sound. . .

But back to your question — on the optimistic side, I can tell you that as a person who has spent time trying to come up with game ideas, you're constantly aware of what the hardware limitations are when designing the game. In this way, slow hardware can act as a sort of sieve that keeps some ideas from ever even entering in your mind. Sure, you could make "Prince of Persia" have real scrolling backgrounds, but that's a tweak — it doesn't add much to the game. Eric Snider (at Delta Tao) was talking about a water game that pretty much requires the power of the Power PC to handle the modeling of the streams of water that pour down. And who would have even touched that one — even thought of it perhaps — a few years back. So maybe the faster hardware will suggest games that dared not even whisper a name a few years back.

Maybe your question can be made to answer itself. It may not be quite comparable, but what did the Quadra do for Mac gaming? I think the answer may be: just an evolutionary thing — nothing radically new will result from it — some new ideas, but basically just a stepping stone.

IMG: For those interested in programming Mac games, where should they start?

Calhoun: I've posted and given away all my early source code from the shareware (now freeware) stuff I've done. It's not good stuff to learn from, but it's there. It's garbage really — but perhaps everyone thinks that a few years after the fact (although I don't think I was ever "proud" of it). But in fact, I think source code is a great place to start. You see how something is done, can tweak a few things and see what the results are. Pascal or C — it doesn't make any real difference. Most of the source code you'll come across is in C though so there's some advantage there — but then the Mac Toolbox uses Pascal calling conventions that can be a little ugly in C sometimes. So you know, six of one. . . C and Pascal are so close in fact, you can jump from one to the other pretty easily down the road.

The best books are undoubtedly Dave Mark's primer books — he has C and Pascal versions (there is a volume 2 though for C and maybe not for Pascal). I don't remember the whole name of the books, "Macintosh C Programming Primer" or something like that. The Pascal book is named differently of course.

Check around on the net. A lot of good questions and answers come up (especially on Usenet — comp.sys.mac.programmer). Look for UMPG (Usenet Macintosh Programmer's Guide) at various FTP sites. There are some good CD ROM compilations of Mac code and docs (culled from the Internet) out now — "Apprentice" is the one that comes to mind.

But above all else, just code — hack — do something. There's no substitute for crashing your machine a few dozen times a night (the Plus was a beautiful machine to crash — some really stunning patterns and noises could result). 90 percent of the learning comes from trying it for yourself.

IMG: What do you do in your spare time?

Calhoun: A million things. Not much have to do with computers though. I don't play as many computer games as I used to. I just made this seven-foot rocket out of 2-liter bottles

and launched it with 6 "D" engines (that was cool). I've been working on a robot leg. I like to play guitar and bass and wank about with my 4-track. Sometimes do the MIDI thing. I draw still. I don't paint much though.

IMG: Can you tell us about your next project(s), if any?

Calhoun: Nothing! I don't have a thing in the world planned! I might go back to college and get some sort of masters or whatever in AI or whatever. I have a degree in Education but I don't feel like teaching school in the near future. Who knows. I do like hanging out at the (MacWorld) Expos though.