

New Gaming Guru

Welcome to the third installment of Macintalk. Each month, Apple Wizards will interview one significant person in the Mac or Apple community. We will bring you interviews with programmers, executives, end users, and everyone in between.

This month we sat down with Peter J. Creath, one of the Mac community's newest game developers. Peter is one of the founders

of Elysium Digital, L.L.C. and is one of the creators of the newly-released, cross-platform, helicopter side-scroller entitled Cobra Gunship. This new entry to the computer gaming arena has revived the side-scrolling helicopter genre. It is the first high-quality game of this type since the classics Choplifter and Armor Alley.

Apple Wizards: Could you give a brief description of Elysium Digital, L.L.C., its role in the Mac community, and your part in the company?

Peter J. Creath: Elysium Digital, L.L.C. is a small company in its infancy started by three friends: Scott Mackenzie, Christian Hicks, and me. Our motives ranged (with a lot of overlap) from wanting to write games, to wanting to work on interesting projects, to wanting to build a company from the ground up. Two of us graduated from college last year and passed up real (i.e. "paying") jobs to start this company. The third graduated the year before and quit his full-time job for this. This is all we do, and we're hoping it'll get off the ground.

Our role in the Mac community is that of a hopeful newcomer. Our first product, a game called Cobra Gunship, was released in November for the

Macintosh. Unlike many large companies, we see a great deal of potential in the Macintosh software market, primarily due to the relatively meager software selection. And unlike many companies which release cross-platform products, we don't believe in making only token concessions to the Macintosh market. Our products are developed on all of our target platforms from the start, resulting in a product which is designed with each platform in mind. The Macintosh is not an afterthought for us.

My role (as are all of our roles) is rather varied. We all do a bit of everything. I tend to handle project management, create and coordinate artwork, write the Mac libraries, and handle all the company's finances.

For the Cobra Gunship project, I rendered the vehicles, buildings, people, and title screen, wrote the Mac libraries, and fixed up odd bits and pieces of the code. Scott wrote the DOS libraries, rendered the explosions, wrote the core game engine, and did all the sound effects. Christian wrote all of the enemy AI, coded all of the player's weapons, built all the missions, and rendered the backgrounds. Additionally, I fixed up the user interface, Scott and I both worked on the audio mixer, etc. So we all worked on some of everything.

AW: Where and how did the idea for Cobra Gunship come about?

PJC: We've always had a running list of classic arcade genres which we wanted to revive, and from that list we picked the one which we felt to be most keenly missed. Choplifter was one of those really cool games we had for our Apple II's, followed by Rescue Raiders. Rescue Raiders was later remade as Armor Alley for the Mac and PC, much to everyone's joy. And so we thought it was time for a new game with similar appeal and updated graphics and sound.

Once we had the basic theme down, we had to figure out just what it was about those older games that we found so much fun. The result is a varied mission structure which ranges from Choplifter-style troop ferrying to Armor Alley-style convoy defense. And we added a few more weapons. :)

AW: In brief, how was Cobra Gunship created? What ideas were trashed or thought of in the process of making it?

PJC: Well, we didn't really plan it out in advance, which was a mistake. It was originally going to be a much less ambitious (8-week) project, much closer to the monotonous simplicity of Choplifter. We kept coming up with cool ideas which we added as we went (since individually they didn't require a lot of time). Pretty soon it had taken 5 months to reach the alpha-testing

stage. This is a lesson in how NOT to handle a large project. But we ended up with a vastly better game than we originally intended!

None of us liked the fuel limitation of Armor Alley, so that was scrapped. We also weren't thrilled with the idea of being able to "heal" during a mission, so we dropped that as well. We did later add a repair-drone to help in later missions, but we didn't want the game to focus around your base as much as the older games did, so you still don't have to return to base to heal. We decided to omit the "power-ups" you often pick up in arcade games, since we didn't like the idea of magically acquiring a new weapon in midair. The exception to the "power-up" rule was cash. You do pick it up during a mission.

The big things we left out were music and network play, both intentionally. The primary reason for leaving both of them out was the fact that we had extremely limited manpower. Scott's a musical prodigy and could've whipped up a killer soundtrack, but that would've either required an enormous audio file or writing a MOD playback engine. So we left it out.

Network play was a much tougher decision. We all liked Armor Alley's network play, but we knew from experience (in college) that network code is a lot more difficult to get right than it first seems. Additionally, the burden of getting network play to work across platforms using multiple protocols (TCP/IP, AppleTalk, IPX, etc.) was more than we could deal with given our time frame. It would've added at least two more months to the project. The project took 6 full-time months as it was.

AW: Cobra Gunship uses one of Apple's Game Sprockets. Have you found that Apple has provided adequate support for game developers or is there not enough help coming from Apple? Did you find that Windows/DOS platforms provided you with more support?

PJC: Since we didn't write the game for Windows specifically, we got no support from Microsoft. They're not interested in DOS-based games.

Apple's support has been, well, short-staffed. Chris De Salvo (the author of DrawSprocket) has been wonderful about answering my questions, but I think he's really swamped. Occasionally my messages go completely unanswered, but the feeling I get is that he never gets the chance to address them. When he does get the chance to respond, he's always a great help. Apple really needs at least one more person to handle full-time developer support for Game Sprockets.

The biggest complaint I have about Apple's game support is their legal department. Like all legal departments of very large companies, it moves at

the speed of molasses in Nome on a cold February night. The people who handle the licensing itself are quite helpful and efficient, but there's no chance of getting the official license agreements changed in any timely manner.

All the questions I sent to Software Licensing were answered quickly and helpfully, and they processed our agreement almost immediately. But the problem was with the Game Sprockets redistribution license itself. It failed to include some necessary technologies for 68K machines and featured some language geared exclusively toward retail sales. The official word I got was, "just follow it as best you can and we'll work on fixing the license." We'll see how long THAT takes.

I get the sneaking suspicion that the legal department doesn't consider a "free" product very important.

AW: How difficult was it to create an identical cross-platform game? How much time and resources could've been saved by doing a single platform version?

PJC: It's really not that difficult to create a cross-platform game, as long as you start out with multiple platforms in mind. It only gets really ugly when you have to retrofit poorly-written code with native OS calls scattered throughout.

In contrast, if you isolate the OS-specific code, you can share about 90% of your code. That shared code can be written on any platform, and it will work on any platform for which you've written the underlying 10%. This is what we did very early on. Once the low-level libraries had been written, we were all able to work on the shared code simultaneously, each on our own computers (me on my Mac, the others on their PCs).

It's hard to say how much time we would have saved had we not done multiple platforms. We wouldn't have released the product at all had it not been cross-platform, so in a sense we didn't lose any time. As I mentioned earlier, I had a Mac. The other two developers had PCs, so neither side could force a single-platform product.

AW: Which platform has been the easiest to work?

PJC: As I hinted, this would be hard to measure since all of us were developing at the same time, each on our own machines. We had to jump through hoops on both platforms. Most of the DOS-related hoops were functional: reading the mouse and joystick, programming the SoundBlaster

card, etc. Most of the Mac-related hoops were for polish: synchronizing the mouse cursor to the monitor's refresh rate so that it moves as smoothly as a Mac user would expect, adding support for the Mac menu bar and switching in/out of the game, building an installer which is smart enough to install what you need, etc.

The DOS development had the additional problem that debugging a protected-mode VESA program is just about impossible. (This would not have been the case had we developed for DirectX or OpenGL.) We certainly didn't have to fight the hardware as much on the Mac.

AW: How has Cobra Gunship been received by Mac and PC users?

PJC: The Mac response has been terrific. We have been reviewed at Mac Gamer's Ledge at <http://www.maclede.com> , MacCentral at <http://www.maccentral.com> , Mac Review at <http://www.macreview.com> and Macinsoft at <http://www.macinsoft.lumiere.net> , as well as here at Apple Wizards. That is a very healthy portion of the online press for Mac games, and every review has spoken well of Gunship.

The Intel response has been much smaller, but equally positive, with reviews at Hotgames at <http://www.hotgames.com> and games.net.nz at <http://www.games.net.nz> , as well as a preview at Telefragged at <http://www.telefragged.com> .

Everyone who has reviewed the game likes the fact that we have brought back the old side-view chopper feel. We are very pleased with that, since that is always a looming fear when you develop a game: "What if no one else thinks that it's fun?"

AW: In your judgment, has your decision to be cross-platform been a wise one thus far?

PJC: Definitely.

The hardest problem facing a company with a midsize game release is getting publicity. On the Intel side, this is a serious problem. The market is swamped with big-name, big-budget releases that dominate the press.

On the Mac side, a good game that is well-crafted for the Mac gets good attention. We've had several great reviews, again including one right here in Apple Wizards.

Another benefit of developing for the Macintosh relates to our selling

system, which is completely online. The Mac's offshore market share is much larger than its U.S. market share. Many of the countries in which the Mac is very strong have import tariffs that make imported boxes quite expensive. That's where the system we are using (described in detail at <http://www.emania.com/>) scores big, because no matter which country someone orders from, he/she can buy our game online for \$20 in about 10 minutes. To date, about 25% of our sales are international.

The flip side is that the DOS/Win95 side has more explosive potential. If we ever got a good review in, say, PC Gamer, we would be set. But with the sheer number of releases on PC, there is a great risk that you will never get that kind of press.

So, developing cross-platform covers the reliable market (Mac) and the Hail Mary market (Intel). Additionally, the good press on the Mac increases our chances of getting that critical press on the PC.

AW: What has been the single toughest thing to overcome in creating Cobra Gunship? What setbacks did you incur while working on the project?

PJC: I hear that the toughest thing to overcome was the low-level DOS libraries. Things just get ugly when you hit the hardware directly and when that hardware can vary so greatly.

The toughest thing to overcome as a team was the limited manpower. We had no support staff to handle accounting, support, publicity, etc. We had to deal with the lawyers ourselves, we had to do our own books, we've had to contact everyone, we had to do all the art ourselves, all working ridiculous hours until the game was done.

Our first setback was a reformatted drive due to a bug in the early DOS audio libraries. The second was a flood in our basement which submerged Scott's computer in 18 inches of murky water. It was really funny (in a macabre sort of way) to pick up the computer and dump water out of it. That's one of those things you really don't want to wake up to. "Can you come downstairs? The basement flooded." Fortunately we were able to borrow a computer from a friend until the insurance company decided to reimburse us. Now it's a fond memory.

AW: What advice could you give up-and-coming game designers about making cross-platform software and designing for the MacOS?

PJC: Plan ahead! We can't stress this enough. We planned ahead like crazy, and still found ourselves wishing we had done more. Spec out the game.

Spec out the libraries. Spec out the development schedule. Fly-by-the-seat-of-your-pants development may work in school or in tiny projects, but if you have a big project, you have to plan like a mother with 12 children getting ready for Christmas.

AW: As a relatively new company, how hard has it been to get the word out about Cobra Gunship? What techniques have you found most helpful in getting the word out?

PJC: There are some challenges unique to being a new company, but the major challenge in getting the word out has been our lack of capital. We started the company on a shoe-string budget, living off of our savings without income for almost the entire duration of Cobra Gunship's development. So we didn't have any money with which to buy advertising space on the web or magazines or to show up at MacWorld Expo. We also couldn't afford someone to take care of marketing while we developed the game.

The advantage of doing it ourselves with little money (besides not costing much) is that we're learning a lot about how to market software effectively. The most important thing is to make yourselves heard as widely as possible. Practically speaking, this means that you need to contact as many people in the industry as you can, via e-mail and phone, to get the word out about your product.

We're now building relationships with people who run web pages and magazines, who print CD-ROMs, and so forth. Had we gotten the chance, we would have started this process long before the release of Cobra Gunship in order to build up anticipation and allow time for the word to spread.

But we're starting to make up for it now.

AW: Why have you chosen to distribute Cobra Gunship directly through your own web distribution system and not resellers? Why did you choose to use a download and register system for distribution instead of a CD ordering system?

PJC: The big reason we avoided physical distribution was that we're small and distributors are big. They avoid small companies and go for big-name products. They're also undependable. This isn't to say that they're bad per se, it's just to say that they're interested in the bottom line, and if you don't fit in, they'll drop you without a second thought. We didn't want to pin our hopes on someone who could bail on us.

Additionally, shelf space is scarce for Macintosh products.

We decided to start our own sales service because we really weren't happy with the other options out there. Either they took too large a cut or they provided too little service.

One well-established "competitor" (the cheapest) takes only a few percent less than we do, but offers a lot less. They added support for registration codes as an afterthought. As a result, they don't support real-time ordering — when they only supported shareware on the honor system there wasn't any time constraint on how long it took them to process an order.

We designed our system to support immediate credit card processing and response. This feature isn't quite so interesting for developers who don't use a serial number or other registration scheme to protect their software, and so we don't expect to be so appealing to them. However, there has been at least one reasonably rigorous study which shows that protected shareware gets purchased more than unprotected shareware 6 to 1. So to increase our appeal to these developers, we also provide a pre-built serial number library for them to use in programs they sell through us. We also offer fax orders, postal mail orders, and a toll-free order line in addition to a secure web server order form.

Our ambition is to replace the retail stores with direct sales. The developers get a larger cut, the developers don't have to deal with distributors interested only in the biggest names, and the consumers pay less. Everybody wins (except the retailers).

AW: What projects are you or Elysium Digital, L.L.C. considering as your next release? Will it be cross-platform? Why?

PJC: It will definitely be cross-platform for several reasons. First, we still develop on both Macs and PCs. Second, you always want the widest target market possible — that's why Cobra Gunship supports 68K Macs. Third, you actually end up writing better code when you have to make it portable: you tend to be a lot less sloppy.

Our next project is currently under tight wraps, but we can say that it will feature traditional role-playing elements. We're quite excited about the project and we've started the design work, but we probably won't dedicate all of the company's resources to it for about six months.

Right now we're taking a break from games to raise some more capital. We plan to do contract work and small projects for the next six months in an

effort to have enough money to be able to choose our direction (rather than be forced into a path by financial need). Cobra Gunship is currently not quite paying the bills.

AW: What is it about the Mac platform and OS that has caused you personally to be a big supporter of it?

PJC: Half of it was loyalty and half of it was pragmatism. On the loyalty side, I've used Apple computers since I was a kid and have been programming Macs ever since my sophomore year in high school.

There are two parts to the pragmatism side. The less glamorous part is that I had a Mac on my desk and didn't want to buy (nor could I afford) another computer on which to develop. The more glamorous part is that we knew that the Mac game market would be much easier to enter than the Intel game market. And we were right. Just under 90% of our sales in the first three weeks were Mac sales. However, as word gets around and we get a second look in the Intel world, the sales are starting to even out.

The fact is that, for a startup, the Mac platform is a fantastic safety net. If you release a good product, people will buy it, largely because the market is so starved for good software. Now note that I'm not in any way endorsing shabby products or ports. I've seen such products hit the Mac market and completely flop, much to the publisher's confusion. It's really not that confusing — having a limited software selection doesn't mean we'll snap up bad products. It simply means that it's a lot easier for a good piece of software to get noticed by reviewers and customers.

AW: How do you view the MacOS and Mac hardware as a gaming platform? What are the strengths and weaknesses, and how does it compare to Windows/DOS as a gaming platform?

PJC: For the most part, the Mac is a fantastic gaming platform. The hardware is generally easy to access, people tend to have good video cards and monitors, and the PowerPC really is a fast processor. However, the Mac does fall short in a few critical areas:

- 1) Joysticks. Apple released a PPC-only way to communicate with them, but that's not acceptable for people who want to support 68K Macs. (**Editor's Note:** I use a CH Gamepad from <http://www.chproducts.com/> to play Cobra Gunship. I simply programmed the gamepad control panel to use my Cobra Gunship keys. Therefore, I do not miss a more native approach to joystick support).

2) Video. Macs tend to have very good video, but that's part of the problem.

On a DOS machine you can use very low resolutions (i.e. 320x200) which, while not very visually appealing, requires a lot less horsepower than 640x480. Thus a lot of the fast action games will run on a cheap PC, but will only run on a very fast (and expensive) Mac.

3) 3D Accelerators. They come out for the Mac after they come out for the PC, if you're lucky enough to find drivers for them. Additionally, Apple needs to jump on the OpenGL bandwagon so that developers who write

OpenGL games for Windows can release them for the Mac with minimal effort. I know QuickDraw3D is cool, but it's just not a replacement for OpenGL.

4) Price. Unfortunately prices are on the rise at Apple again. This is a very bad thing. The PC clones may be lower quality, but you can buy a high-speed Pentium with 3D accelerator for \$2000 with monitor.

That's a lot more appealing than the \$3000 Mac without monitor to Mom & Dad buying Junior a computer to play with. The price difference is even making us consider whether my next machine will be a Mac, and that's scary.

The real problem is that Apple's focusing almost exclusively on the high end again. That's not good for the mass market of families buying relatively cheap computers for the home.

AW: How do you view the future of Apple and the MacOS or Rhapsody?

PJC: Uncertain. Rhapsody has a great deal of potential, but Apple's going to have to learn how to market. Even more importantly, Apple's going to have to get serious about attracting developers. The fact is that Apple can't afford to have average or even good support for developers. They've got to have phenomenal support. They have to get developers excited, and they have to convince companies that there's money in developing for Rhapsody. Simply putting a cool technology out and pointing to it with a self-satisfied smile isn't going to cut it. OpenDoc comes to mind as a prime example of this attitude.

Look at the way Microsoft works. They don't let ANY new technology die on the vine. It may not be warmly accepted when it's first released, but then they go on a marketing blitz, using other products to promote it and vice versa. Eventually it catches on. Of course Apple doesn't have quite the same cross-promotional advantage now that they don't produce applications.

I have high hopes for Rhapsody, but Apple doesn't exactly have a stellar record for making sensible business decisions. But hope springs eternal....

AW: If you were chosen as Apple's CEO, what would be your first order of business and why?

PJC: First I'd stop playing games with the customers. They've stuck with Apple through some ridiculously hard times, and now it's time to repay the loyalty and tell them what on earth the company is up to.

The Jobs mystique may be cool and interesting and inspire a lot of discussion and curiosity, but it's hell on companies and users trying to figure out if the platform will even exist in a year.

Apple needs to convince the world that they're not going to disappear.

Then I'd institute a CEO dictatorship, similar to Bill Gates' control of Microsoft. Whatever else you might say about him or his company, he turned that company's attitude toward the Internet around in a week. They went from belittling the Internet as an annoyance that would go away to a major Internet power in under a year. Apple's still battling internal problems from 5 to 10 years ago. That's got to go.

Don't even get me started on Apple's indecision in the hardware market.

AW: What do you see for the future of gaming on the MacOS? Will Apple's support for gamers prove to be enough or do you think more hard times are coming for Macintosh gamers?

PJC: I'd say the future for Mac gamers is brighter than it has been, but not as bright as it could be. Currently companies won't get rich developing for the Mac, but they won't go broke, either. Companies who have already spent the time and money developing for the PC are finding that the Mac is a market which will make them a fair chunk of money for minimal extra development.

would like to thank Peter Creath very much for providing some insight into the world of cross-platform game creation and Mac gaming from a developer's standpoint. Peter has provided the Macintosh gaming community an outstanding new game and we are very grateful for this contribution.

For more information about Peter, Cobra Gunship, and Elysium Digital L.L.C., please visit their website at <http://www.elys.com/> .

If there is a well-known person in the Mac community that you are dying to learn more about, please let me know. I would love to hear your suggestions. You can reach me at macintalk@applewizards.net to let me know who it is that you wish you knew more about.

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