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The Internet Audio Talk Show for .NET Developers

With Carl Franklin **msdn**
and Richard Campbell

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Carl Franklin and Richard Campbell interview experts to bring you insights into .NET technology and the state of software development. More than just a dry interview show, we have fun! Original Music! Prizes! Check out what you've been missing!

Carl Franklin

Richard Campbell

Text Transcript of Show #309
(Transcription services provided by PWOP Productions)

Les Pinter Looks Back
January 22, 2008
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[Music]

Lawrence Ryan: Hey, Rock heads! Quit reading the Confessions of the FoxPro Murderer and listen up! It's time for another stellar episode of .NET Rocks! the Internet audio talk show for .NET developers with Carl Franklin and Richard Campbell. This is Lawrence Ryan announcing show #309, with guest Les Pinter, recorded live, Tuesday, January 15, 2008. .NET Rocks! is brought to you by Franklins.Net - Training Developers to Work Smarter, and now offering SharePoint 2007 video training with Sahil Malik on DVD, dnrTV style. Order your copy now at www.franklins.net. Support is also provided by Telerik, combining the best in Windows Forms and ASP.NET controls with first-class customer service, online at www.telerik.com, and by the ANTS Profiler from Red Gate Software, the .NET profiler of choice of over 11,000 developers worldwide, online at www.red-gate.com. And now, the man who still wonders why Richard screwed that lamp into his head, Carl Franklin.

Carl Franklin: Thank you very much. Welcome back to .NET Rocks! This is Carl Franklin, your hostess with the moistest, and Richard Campbell in Vancouver, British Columbia.

Richard Campbell: Yes, sir.

Carl Franklin: Mr. Campbell.

Richard Campbell: Ah, how are you sir?

Carl Franklin: Yeah, I just got one question.

Richard Campbell: Hit me.

Carl Franklin: How was it that you were supposedly on vacation at that time? I just got one more question. You couldn't have been on vacation, see, because your fingerprints were all over that gun.

Richard Campbell: Wow.

Carl Franklin: Ah, that's my Columbo.

Richard Campbell: You do a serious Columbo there, man.

Carl Franklin: Well, you know.

Richard Campbell: You had me going, and of course your reference is to the fact that I am in Lithuania at the moment.

Carl Franklin: Yes, you are.

Richard Campbell: And yet still on the show.

Carl Franklin: How does that happen?

Richard Campbell: It's amazing technology.

Carl Franklin: And I am only beginning to recuperate from my hellacious cold.

Richard Campbell: Yeah. You've had a tough week.

Carl Franklin: Hellacious. Let's get right to Better-Know-A-Framework.

[Music]

Richard Campbell: All right mending sir, how are you? What have we got?

Carl Franklin: Yes, making you smart one class at a time. Well, this is a key word actually for our C# friends.

Richard Campbell: Oh.

Carl Franklin: It's the yield keyword. The yield keyword is a very, very wonderful, powerful thing. Let's say you're doing a custom iterator inside of a collection class and you need to do this because your collection returns something that has to be calculated on the fly.

Richard Campbell: Right.

Carl Franklin: So, what you really need is to - - but here's the thing, it's dynamic so you don't want to preload all of these things beforehand, you want them to dynamically come out. So you need some code in between each of the items in your list so that you can come up with the items but, you need to yield to the calling code that is doing a for each and iterating across your list and that's what the yield keyword does. It temporarily suspends where it is, returns the item to the calling code that is iterating through your collection. So, it's kind of weird, but it's really the only way you can do what you need to do when you have a custom iterator block. So, the yield keyword.

Richard Campbell: Excellent.

Carl Franklin: And if you didn't understand it, just watch dnrTV where Venkat Subramaniam talks about it and yeah, I probably should have been

prepared with the episode number, but I will find that and add a link to it.

Richard Campbell: All right, and, of course, not actually a class.

Carl Franklin: Nope. It's a keyword and it's a C# only keyword and that makes me sad.

Richard Campbell: There should be an equivalent in VB.NET. This isn't right.

Carl Franklin: Well, that's okay, you know, they have their days, we have ours.

Richard Campbell: They have something.

Carl Franklin: Yeah. We have XML literals.

Richard Campbell: There you go.

Carl Franklin: Nothing to sneeze at.

Richard Campbell: Nothing to complain about. So, that show we just did, #308…

Carl Franklin: Yeah.

Richard Campbell: The show with Aaron Skonnard stirred up a lot of emails, some funny ones actually. Let me read this one from John Dyer.

Carl Franklin: Okay.

Richard Campbell: "My ears also perked up with the mention of the word cruft during the show. There was a Dr. Dobb's column, "The New Adventures of Verity Stob," where this was mentioned and it gave me a real laugh. She details a PC going from cruft Force 0 through 10 as it moved from a nice clean machine into a completely unusable piece of junk." John was good enough to shrinksterize it for us, shrinkster.com/tz8, so that's Tango, Zulu, Eight. Let me read a couple of these Cruft Force ratings.

Carl Franklin: Awesome.

Richard Campbell: "Cruft Force 0, also known as *Virgin*. Description: The "Connect to the Internet" shortcut is still on the desktop, and the "How to use Windows" dialog appears at logon. Menu animations and the various event-based sound effects -- even the dreaded Microsoft Sound -- seem cheerful and amusing. Likewise, a clandestine installation of the Blue Screen Of Death screensaver (complete with simulated reboot, naturally) from the Sysinternals website is hilarious."

Carl Franklin: Yeah.

Richard Campbell: "Compilers run crisply, and report only sensible, easily resolved errors. There are just nine directories off of C:\." Now, I'll pick one in the middle here. How about a Cruft Force 5, aka *Worn Out*. Description: Some time after bootup, always get a dialog "A service has failed to start - BLT300." What is BLT300?

Carl Franklin: BLT300?

Richard Campbell: "Nobody knows."

Carl Franklin: Bacon, lettuce and tomato.

Richard Campbell: There you go. "Although one can manually remove/disable this service, it always reappears two or three reboots later. If one double-clicks a document icon, Word takes 4 minutes 30 seconds to start up. But it still works fine if started as a program. Somebody opines that this is due to misconfigured DDE. Or the Mars-Jupiter cusp."

Carl Franklin: Yeah, that's my wife's machine.

Richard Campbell: There you go. She's at Cruft Force 5.

Carl Franklin: Cruft Force 5.

Richard Campbell: Now, let me give you a Cruft Force 10. Let's go all the way. Also known as *Expiry*."

Carl Franklin: Yeah.

Richard Campbell: "Machine only runs in Safe mode at 16-color 800×600, and even then for about a minute and a half before BSODing. Attempts to start an app are rewarded with a dialog 'No font list found.' Ordinary dodges, such as reformatting the hard disk(s) and starting again, are ineffective. Cruft has soaked into the very fabric of the machine, and it should be disposed of safely at a government-approved facility. There it will be encased in cruft-resistant glass and buried in a residential district." Brilliant, brilliant piece. Thanks so much for finding that, and this is why we don't cruft code. It's not good.

Carl Franklin: So there. Oh, my goodness. All right, Richard. I'm very happy to introduce to you Les Pinter and the audience of course. While working toward a Ph.D. in Economics at Rice University in Houston, Texas, Les Pinter teamed up with two high school friends to market the fourth word processing program ever written for microcomputers, the Magic Wand. A year later, Les had sold the Magic Wand to a 23-year-old Bill Gates and was hooked on microcomputers and that went on to become Microsoft Word. After writing and marketing the Real Estate Guide, the first nationally marketed templates for Lotus 123, Les discovered dBase II and became a

database specialist. He bought copy #253 of Fox BASE, and started publishing a monthly newsletter about Fox BASE in 1989. The Pinter FoxPro Letter was published for 10 years in the US and four years in Russia. Currently, Les continues to publish articles on FoxPro and ASP at his website, www.pinter.com. Les has been a speaker at dozens of FoxPro conferences in the US, France, Spain, Russia, and Canada. He gives seminars in five languages and has offices in San Mateo, California, and his consulting clients include Halliburton, Brown and Root, TRW, Stanford University, Anthology Software, uGetHeard.com, and many others. Les is a private pilot, and once played lead guitar in the road band for Jerry Lee Lewis. Folks, this is going to be an interesting hour. Please welcome Les Pinter.

Les Pinter: Well, thank you.

Richard Campbell: You know what? We're a bunch of old school computer guys here, but I think you sir, you're really more old school than we are.

Les Pinter: I have got grayer hair than any of you, I'm sure.

Carl Franklin: Oh, the stories.

Les Pinter: But I can still bench press more than either one of you, I believe.

Richard Campbell: Nice.

Carl Franklin: I believe you. I believe you could, yes.

Richard Campbell: Well, and the guitar line comes at the end there because I think that's an important part. You know, Carl is a serious guitar player.

Carl Franklin: Yes.

Les Pinter: Yes, I know. Well, you know, you gotta have fun, although I do love what I do for a living, but life is so short and there are so many fabulous ways to spend your time.

Carl Franklin: I certainly agree. I always tell my kids there's no excuse for boredom. No excuse.

Les Pinter: Yeah. I don't remember having been bored in the last 50 years.

Carl Franklin: Yeah, right. So you're obviously one of these guys who exercises both halves of your brain and does quite a good job of it. I'm interested. . .first let's talk about the elephant in the room, the Microsoft Word story. That's got to be a good one.

Les Pinter: Well, I finished my course work for a Ph.D, and I was teaching, as is the way we support ourselves - you become an assistant professor and work on your dissertation. They were paying me $333 a month, so it really wasn't enough. I had a child who had childhood cancer and we needed to cover a lot of expenses. So, a buddy of mine talked me into learning COBOL. He said, "The oil companies here are dying for programmers." I said, "But I don't know COBOL." He said, "Oh, that's easy. I'll teach you in a week." And he did.

Carl Franklin: What year was this?

Les Pinter: 1975 or 1976?

Carl Franklin: Wow.

Les Pinter: So, he taught me COBOL for about week. Every day, he would take an hour and say, "Here's how you do this and that." After a week I went out and interviewed at a company down in the Ship Channel in Houston and they asked me a few questions to determine whether or not I knew programming, and I said all the right buzz words. At the end, the guy said, "Okay, how much do you charge?" I was going to say $10 an hour, but this little voice in the back of my head (which has not spoken to me since, by the way) said, "Double it." So, I said "$20 an hour" and he said, "Fine. Can you start Monday?" and I said, "Sure." I got up, shook his hand, walked out, and I said, "Oh, Lord, please don't let me faint until I get to the men's room." I had just quintupled my salary with something that I'd learned in one week, after 11 years of studying for a Ph.D. in economics.

Carl Franklin: Wow.

Les Pinter: And that was the end of my being an economics professor. I didn't even go back the next year.

Richard Campbell: Wow.

Les Pinter: My consulting business continued and grew. I was doing a huge amount of work for Exxon. billing 60 bucks an hour back when that was a lot of money.

Carl Franklin: Yeah.

Les Pinter: And one day, a couple of friends of mine from high school called me up and said, "Mike…" (Mike Griffin) "has written this word processing program, and we need somebody who knows business. You're a business college professor and also a programmer, you'd be the perfect guy to run our company." So, we put together a little company. I was the president, Mike was the VP of

Programming, and Bill Radding was the VP of Marketing. And that was it. We started selling our little word processor called the Magic Wand in January of 1980. By September, we were doing pretty well. And I got a call one day from. . .I was by then the head of the 12th largest microcomputer software company in the United States. I had 13 employees. Bill Gates was the head of the biggest one; he had 50 employees. He called up and he said, ""This is Bill Gates, and I need to know if I can buy the source code from you. I'll give you a two-year non-compete agreement. How much will you charge me?" I covered up the phone and said, "It's Bill Gates. He wants to buy the source code. He'll give us a two-year non-compete agreement. How much?" Mike said, "Tell him 35 grand." I said, "$35,000." And he said, "You're not going to change your mind, are you?" I said, "No." He said, "I'll be there tomorrow."

So, the next day, I drove to Intercontinental Airport in Houston and I drove him to my house and made him a grilled cheese sandwich. He handed me a $35,000 personal check and I handed him the source code to the program that became Microsoft Word.

By the way, do you remember a Hungarian tourist who went up in the space station about six months ago?

Carl Franklin: Yeah, I do.

Richard Campbell: Yes.

Les Pinter: Charles Simonyi?

Carl Franklin: Yes.

Les Pinter: Charles Simonyi was actually the first employee hired by Gates and Steve Ballmer to help build Microsoft. But his job was to rewrite the Magic Wand so that it would work with their new DOS, which they were also developing at the same time.

Carl Franklin: Wow.

Richard Campbell: But he -- I mean not only did he come out with Hungarian notation, he was also the guy who believed in the concept of the common platform because back then, I mean the PC wasn't going to be the guaranteed winner. There was also Apple II and the Atari line and Amiga line, CBM series. There were all these different machines and Microsoft wanted to be on all of them, so Multiplan and all these different products tried to work across all of them.

Les Pinter: Well, you're almost old enough!. Do you know who Gary Kildall was?

Richard Campbell: Oh yeah, Digital Research, the guy who didn't sell DOS to IBM.

Les Pinter: He is the reason that I became a pilot.

Richard Campbell: Really?

Les Pinter: He's also the reason I didn't drink for 20 years.

Richard Campbell: Oh.

Les Pinter: Gary was asked to sell DOS to help IBM develop a DOS.

Richard Campbell: Right. Of course, at that time he was CP/M, like the operating system.

Les Pinter: That was it. In fact, they went to Gates and he said, "No, I don't have time. Go see Gary." So they flew down to Monterey to see Gary Kildall. And he and I talked all the time. In fact, he said, "You know, you ought to learn how to fly. It's very relaxing." So, I started taking flying lessons. Well, he decided to show IBM that they couldn't push him around, so he went out flying all morning. They sat there in his office for three hours and finally said, "Screw this," and went back up to Seattle and begged Gates to go into business with them. Gary got so disappointed, so upset about having missed the brass ring, that he started drinking too much, and many years later he fell off a bar stool and hit his head, had a cerebral hemorrhage, and died.

Carl Franklin: Oh.

Les Pinter: I wouldn't touch alcohol for years and years because I was so disappointed at having missed my big chance to make the big score with Word that I was afraid that I might not do well with alcohol, and I just refused to touch it for years.

Richard Campbell: Ultimately, Gary sold Digital Research to Novell. He made lots of money.

Les Pinter: Yeah, but it's a very bitter story. I was just looking on the Internet today about one of the guys who was on the inside of that story and he was very disappointed in Novell for missing their brass ring, too. There had been a lot of brass rings missed. I was not the only one, and I want to say before we go further in this interview, I'm doing great!.

Richard Campbell: Everything is fine. No chance of you diving off a bar stool anytime soon, is that what you're saying?

Les Pinter: No, no, no. I'll tell you what, I'm thinking of buying a Rolls Royce, and I'm going to

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have a license plate holder that says, "My other car is a Rolls, too." I wrote a book on rewriting FoxPro programs in .NET, and after years of having a pretty good career as a FoxPro developer - I think I was one of the top 30 or 40 money earners in the FoxPro world - rewriting entire applications for major American corporations that had previously committed to FoxPro and rewriting them in .NET is a HUGE business. I have a stable of Argentine programmers, another group in Brazil, and some guys in Russia that help me out. I had a team in Mexico. And since I speak four languages besides English. it's turned into a fabulous business that is sort of a dream come true for me, and quite profitable frankly. (Although I hasten to tell my customers who may be listening: It ain't all THAT profitable.)

Richard Campbell: Right, right.

Carl Franklin: It seems to me that you should be writing a book about the stories, about the time. I mean the things that you've done.

Les Pinter: Oh, I don't know.

Carl Franklin: Playing lead guitar with Jerry Lee Lewis? I mean…

Les Pinter: Well, that lasted about a week-and-a-half until he got me drunk and my mother said, "You're not hanging out with that white trash." So, that was that.

Richard Campbell: How old were you when that happened?

Les Pinter: They didn't know, I was just barely. . .I think I had turned 16 by then, but just barely.

Richard Campbell: Wow, but you're obviously a phenomenal guitar player if you ended up there.

Les Pinter: I blew that room away. When I went to the audition, I had memorized the album that B.B. King's brother, Freddie King, had done. B.B. King, he's a four chord wonder, but Freddie King was a virtuoso rock and roll guitar player.

Carl Franklin: Wow.

Les Pinter: And I was the only white kid around that could play his music so I aced the audition and then they told us what it was for, but I didn't last long. It's a pretty hard drinking -- it was a rough crowd and…

Carl Franklin: Yeah, it still is.

Les Pinter: Yes, I suppose. My mother raised me to be a little pinko intellectual ,so…

Carl Franklin: Yeah.

Richard Campbell: And you're supposed to be an economist.

Les Pinter: Yeah.

Richard Campbell: How did that, you know…

Carl Franklin: Speaking of economics, was your forte micro or macro economics?

Les Pinter: My dissertation was planned to be a linear programming model of the Texas energy sector, so I guess you would say micro.

Carl Franklin: I guess so.

Les Pinter: I have two masters; and one of them is in mathematical economics, and the other is an MBA in operations research. So, I was more of a mathematical guy. I was a math jock.

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Macro economics was one of my favorite classes in college that I took just because. . .at that time Alan Greenspan was doing wonderful things for the Fed and yeah, so… but, I don't know, micro. . .I don't know. I know a lot of people who liked micro better than macro because it's more like reality, business.

Les Pinter: Actually, the chairman of the Fed before Greenspan was a guy named Burns, and his son was one of our professors at Rice.

Carl Franklin: You have to write a book about this stuff.

Les Pinter: Nah, nobody cares.

Carl Franklin: Well, people haven't had this life that you've had. I find this…

Les Pinter: There's a lot more, believe me. I could write a book just about what I can't tell you. Suffice it to say, I used to be a lot better looking, and it *was* the '60s.

Carl Franklin: True, and you remember it, which is odd enough.

Les Pinter: Well, I didn't have an affinity for controlled substances, never did have any tolerance. I tried smoking marijuana a few times, and the last time I tried it, which was about the 10th joint I ever smoked in my life. . .I guess this means I can never run for president, right?

Carl Franklin: I think so.

Les Pinter: Oh - I didn't inhale. Now I can.

Richard Campbell: There you go, yeah.

Les Pinter: I had a buddy who is now the number one television producer in Mexico, a guy named Luis de Llano.

Carl Franklin: Okay.

Les Pinter: He once handed me a marijuana cigarette at his house, and it had hashish in it. I spent the next 12 hours hanging by my fingernails from the ceiling, as near as I can tell, and it scared me so much I never touched anything thereafter.

Carl Franklin: Well, you know, it obviously worked in your favor.

Les Pinter: I suppose.

Carl Franklin: Yeah.

Les Pinter: I also was once a guest of honor at the Harvard Club of New York. I was elected to the board of directors of something called the International Economics Students Association). I was leaving the next day to go for military training to be sent to Vietnam. So I drank too much and ended up passed out in the ladies room of the Harvard Club of New York. To this day, I can't even stand the smell of tequila. Well, I don't drink really anything, a glass of red wine once a week maybe. Me and drugs and alcohol have just never crossed paths. Too much stuff going on, you know?

Carl Franklin: All right, so, George Lucas. What's the story with George?

Les Pinter: Oh gosh. I was in Texas in 1986, and my consulting business was doing pretty well. Then the price of oil went from $49 a barrel to $9 a barrel, and it wiped out all the energy companies in Texas. Texas was a monoculture, and so all of my clients were oil companies, and they all went broke, Well, not quite broke but they fired 20% of their employees and all of their consultants, and that was me.

Carl Franklin: Wow.

Les Pinter So, I went from a $100,000 year to $12,000 year.

Richard Campbell: Ouch.

Les Pinter: I had three properties, and lost them all. So I climbed into my car and drove west with nothing but my car and 800 bucks. When I got to California, I found out that you can't get an apartment in California - or you couldn't then, 1986 - without the first and last month and a deposit. So I slept in my car. So here I was a Ph.D. candidate, one of the fathers of Microsoft Word, and I was sleeping in my car and feeling like a terrible failure. Then I went out and listed my name with an employment agency and the very next day they called up and said, "George Lucas is looking for a programmer."

Carl Franklin: Good Lord!

Les Pinter: So, I slept in my car in California for exactly two days and then went over to Lucasfilm, picked up a $10,000 a month consulting contract, and moved in to a houseboat in Sausalito.

Richard Campbell: Nice.

Les Pinter: Yeah.

Richard Campbell: So, it was a tough couple of days…

Les Pinter: It was a tough couple of days, yes. It was a terrible weekend. But it was funny because George Lucas at that time had just finished building his house, but the ILM building and the Carriage House weren't done yet. Well, the Carriage House was halfway done, but that was where the games division worked, so those of us who were just regular employees worked in his house. A big, beautiful house.
.
Carl Franklin: So, what kind of things were you programming?

Les Pinter: I did the royalty revenue system - you know, royalties for Princess Leia dolls and Darth Vader kites.

Carl Franklin: Oh wow.

Les Pinter: They had 1,200 contracts for royalty agreements written on index cards in a shoebox.

Richard Campbell: Oh man.

Carl Franklin: Wow.

Les Pinter: Talk about an opportunity for a database programmer to show what he's worth…

Carl Franklin: Really.

Les Pinter: I wrote a simple little flat file database, did the very first search for expired contracts, and handed him a report showing that they were owed $12 million for which they had paid me about $12,000 for the software.

Carl Franklin: Nice.

Les Pinter: So, they were pretty impressed. But the software was slow - it was written in dBase III - and they were not impressed. So they said, "Well, thanks, but we're going to go back to C and write it on the VAX."

I had heard about this thing called FoxBASE, which could run dBase III program seven times faster, so I went and bought a copy and came back out to the ranch. This was at the Skywalker Ranch. By the way, we all ate lunch in George's dining room. You'd sit down at whatever table had room. One day I walked in, and the only table left was to sit down at the one remaining seat with George Lucas, Francis Ford Coppola, Ron Howard, Philip Glass, and - who was that girl that sang with the Stone Pony? His girlfriend, Linda Ronstadt.

Carl Franklin: Linda Ronstadt, yeah.

Les Pinter: There are some things I could say, but I won't. She was not a smart girl.

Carl Franklin: Oh.

Les Pinter: But a beautiful voice.

Carl Franklin: Yeah.

Les Pinter: At any rate, there was some story behind all of that. So we all worked in his house. So I got a hold of FoxBASE program, brought it back and ran it, and they said, "Oh yeah, that's much better," and they gave me another $50,000 worth of work.

Richard Campbell: Nice.

Carl Franklin: Wow.

Les Pinter: Needless to say, I didn't want to go back to sleeping in my car, and I felt like FoxBASE had just saved my life, so I became emotionally very attached to it and worked with it almost exclusively for the next 10 or 12 years. I never got interested in VB 6 - I guess it was 3 at the earliest stages.

Carl Franklin: Yeah.

Les Pinter: Never got interested in it. FoxPro was a great ride.

Carl Franklin: Well, the Fox community is very, very dedicated to FoxPro.

Les Pinter: Yes. They have been. Well, it's a great product. I still look for things in -- well, if your readers will go to my www.pinter.com, look at my -- actually, the editorial is not there. I have written for the utmag.com, U-T-M-A-G-dot-com. I've written about 40 or 50 editorials for them and I've got one there called Confessions of a Programmer, or something like that, and the confession is, you know, I'm a .NET MVP and I do all this stuff in .NET but when I have to write utilities to do almost anything, I write them in FoxPro because nothing does data like FoxPro. It's fast, it's easy as far as utility programs. When I'm doing conversions from FoxPro to .NET, I write all the utilities in FoxPro.

Richard Campbell: Of course that's ultimately why Microsoft bought Fox in the first place was that data engine.

Carl Franklin: Yeah.

Les Pinter: It is part of the story. I'm a little more cynical than that.

Carl Franklin: Well, tell us. Please share.

Richard Campbell: Okay. I'd love to hear your version of it because of course you there largely, I mean working with the product right -- now, I was always a Clipper guy, so it sort of happened on the side of me.

Les Pinter: I wonder if it's time for me to reveal a deep dark secret.

Richard Campbell: Uh-oh.

Les Pinter: I'll get close to it.

Richard Campbell: Okay.

Les Pinter: I'll get close to it. I'll leave a hint. This is like the Da Vinci code. I once reported that I had heard that Bill Gates personally had said in a meeting in his office, "Every time we sell a copy of FoxPro, we lose $10,000 in SQL Server license revenues." Those exact words.

Richard Campbell: Right.

Les Pinter: So, I mentioned it at a conference. The next day, I got an email from Ken Levy, who was the head of the FoxPro division at Microsoft. He said, "I want to know who said it, where they said it, and exactly what they said." I called him back and I said, "Ken, what he said was exactly those words. I quoted it verbatim. When he said it was about a week ago; and I'm not going to tell you who it is, because he still works for Microsoft, but I'll tell you after he leaves Microsoft." Well, he hasn't left Microsoft. He was promoted recently but let's just say that I have placed his name in a highly visible location for anybody who can figure that out, we'll just leave it at that. But it was a direct quote from Bill Gates.

Carl Franklin: Wow.

Les Pinter: So I know why Microsoft bought FoxPro and killed it, and it was because FoxPro users don't need to buy SQL Server.

Richard Campbell: But it took so long.

Les Pinter: Well, the Justice Department was pretty much ready to eat them alive if they used practiced any monopolistic practices. Monopoly is against the law of the United States of America, and so when Microsoft does practice monopoly practices, they have to be damned circumspect about it.

Richard Campbell: I mean back then, if you go back that far to the whole Rushmore deal, they were hardly on the radar of the US government back then, but they had plenty of opportunity to let this thing go and they waited for so long.

Les Pinter: Yes, but to be entirely fair, there are several things about FoxPro data access that are not compatible with large scale systems. I don't mean to bore your listeners, but the indexes are a real problem, just the data volume. There are timeout problems. The indexes can get detached and not reattach. They can get corrupted.

Carl Franklin: So, they work with smaller sets really well?

Les Pinter: They work with smaller. . .you know, a 10-user network is not very data intensive, no problem at all. You get up to 100 users and you're really going to need client server. And SQL Server is not a bad product.

Carl Franklin: No.

Les Pinter: And compare it to Oracle, geez. How does Oracle sell a product that's a hundred times worse for a hundred times as much money. I don't understand.

Carl Franklin: Hundred times bigger.

Richard Campbell: It's amazing, and they won't tell you how much it costs.

Les Pinter: Yeah. I once bought the little developers edition of Oracle and I kept trying to call and get some tech support. All I wanted to know was what's the user ID and password because I couldn't find it in the documentation.

Richard Campbell: Right.

Les Pinter: So I finally just dialed an Oracle number because I lived right down the street from them. I did live down the street from the Oracle headquarters and I knew what their exchange was so I just dialed a number and I said, "You know, I'm trying to get some tech support," and the guy said, "If you paid less than $100,000 for your license, we don't even return your phone calls," and he hung up on me.

Carl Franklin: Oh my God, you're kidding me.

Les Pinter: That's what an employee of Oracle told me.

Carl Franklin: Wow!

Les Pinter: I can't imagine. It's like an IQ test for the IT profession.

Carl Franklin: And you are…?

Richard Campbell: Fox was never built to that, but, course, the thing that Microsoft always said was that they brought the Fox technology to get Rushmore into Access and the whole Jet architecture in the entire data engine.

Carl Franklin: But did they?

Les Pinter: I think Rushmore got all the way up to SQL Server and I think Access got bypassed. It still has only page locking, right? No record locking, it has page locking?.

Carl Franklin: I don't know the answer to that.

Richard Campbell: Yeah, but SQL Server didn't get record locking until the rewrite after SQL 7.0. That's a long time after Fox's acquisition.

Les Pinter: I know. The whole thing surprises me. I am truly amazed with all of the truly smart people that Microsoft hires why it still takes so long to get the obvious in place. It just surprises me.

Carl Franklin: Well, perhaps it's not on their radar, right? There's a business reason why they're not doing it.

Les Pinter: I must believe that it's for business reasons.

Carl Franklin: It's got to be.

Les Pinter: Because Microsoft is very smart. The purpose of a corporation is to maximize share price. It has nothing to do with producing the best products for the fuzzy-headed guys like me. It has to do with maximizing share price, it's a business. It's like Bill Gates said early on, "I'm a businessman. I'm not a tech head."

Carl Franklin: That's the problem. . .when you have a plethora of products that sometimes overlap. . . is that the cheaper ones, that are seen as a cheaper version of the more expensive ones, can eat the expensive ones up.

Les Pinter: Yes, and that does happen sometimes. There's something that I want to make sure that I say at some point during this hour. I'm astounded at all the capabilities in .NET.

Carl Franklin: Yes sir.

Les Pinter: It has so, so many things in it. In fact, I did a, what did I call it, a concordance once of FoxPro 6.0 and Visual Basic 6.0, comparing. . . here's the command or function in FoxPro; here's the equivalent in Visual Basic 6.0.

Carl Franklin: So, you were bored one day and just decided to, "You know, I think I'll make a concordance."

Les Pinter: Oh, it took two months. It took two months, but you know, it was really a labor of love, and I wanted to do something to help these FoxPro guys, because I thought maybe VB 6.0 was their migration path. I was wrong. I don't think it was a migration path. I think VB.NET was the first real database version of Visual Basic that I could get behind.

Carl Franklin: Yeah.

Les Pinter: At any rate, there are about 2,000 commands and functions in FoxPro, and they have equivalents in VB. There are approximately the same things in the two languages VB is better for some things, especially graphics. FoxPro is better for data. But there are more or less 2,000 commands and functions. There are **400,000** properties, events and methods in .NET. ***400,000!***

Carl Franklin: Yeah.

Les Pinter: A 400,000 class library.

Richard Campbell: It's just a different scale.

Les Pinter: It's an order of magnitude times two, no it's two orders of magnitude times two. And you will never, *never* master more than 4% or 5% of .NET. Nobody will.

Carl Franklin: Yeah.

Les Pinter: So I just don't see how anybody is expected to be an expert in anything more than a niche, just some corner, of .NET.

Carl Franklin: Yeah.

Les Pinter: That leads me to a real concern about the quality of life for programmers in an environment like .NET. It's a fabulous resource. It's got everything. But for programmers it's just another chance to look like a beginner.

Carl Franklin: Well, that's why they listen to our show.

Les Pinter: And even so, every day – I get up at 6:00 or 7:00 in the morning - come out here to my little office, and start working. Five minutes later my wife calls me and says, "Hey, it's dinnertime."

Richard Campbell: Yeah, where have you been?

Les Pinter: Twelve hours had passed and I have learned three things. It's just like, "I'm not going to *live* long enough to learn everything there is in .NET, and then there's going to be another version."

Carl Franklin: Yeah, right.

Richard Campbell: Yeah. They're moving forward faster than we can possibly absorb it.

Les Pinter: I'm not sure what the solution is. I'm smart enough to complain about things but not smart enough to solve the problem.

Carl Franklin: I think the just-in-time learning thing is as good as it gets, not to be anxious about it,

but to try to know what you don't know at least is a good place to start.

Les Pinter: Yeah, to solve the problem that you have right now – or rather, to solve the problem that somebody is willing to pay you to solve is generally the approach that most of us have to take.

Carl Franklin: Yeah.

Richard Campbell: It's such a leap from what Fox was and dBase was. These were so much closer to the metal. We were still building effective apps from it all and then the complexity has grown so dramatically now.

Les Pinter: I do find that now that I have had nearly five years with .NET, I can generally write about the same application in about the same amount of time with about the same number of lines of code in .NET as I did in FoxPro, not in everything, but in most areas, and it will run just about as fast. But I didn't see that equivalency for a long time. I must say, learning FoxPro was so much easier than learning .NET has been. Although once you know it, .NET is fabulous, but it is just huge, it's monolithic.

Carl Franklin: It also sets you up to be a lot more extensible. There's a lot more places you could go with it once you have .NET grasped.

Les Pinter: The benefits are incontrovertible. It's just that getting there, it's that making a living, getting to the point where you can be proud of yourself and not feel like you're going to be blind-sided by some guy who knows one more thing that you didn't know. In FoxPro, everybody knew everything - it wasn't that much. In .NET, everybody you meet knows something you don't know. It's like watching our political candidates these days where every single one of them is looking for that one thing that he can slip in a second before the other guy thinks of it and make the other guy look like an idiot when in fact, none of them are idiots - well, I don't know if none of them are idiots, but…

Carl Franklin: I'm interested. . .I'm curious to know, you've been working with it for five years. What was the most challenging conceptual thing for you to wrap your mind around?

Les Pinter: Oh, not even conceptual: *Data.*

Carl Franklin: Okay.

Les Pinter: Just dealing with data. FoxPro has three ways of dealing with data and they're all pretty good. .NET has 20 and they're all layer after layer after layer, object after object, you have to do this and that. I mean look at *BROWSE*. There's a

command in FoxPro called BROWSE. You use TableName, BROWSE, and boom, you're looking at a grid. That's 19 lines of code in .NET. *Why?* It's just so much harder than I expected it to be.

Carl Franklin: Yeah.

Les Pinter: Some friends of mine, when I told them I was going to have this conversation with you today, suggested that I do a sort of a comic routine where I suggested improvements to .NET , and they would essentially be, "Hmm, I got an idea. Why doesn't .NET add a current selected table object? And that current selected table object could have some commands that would automatically default to that object - like DELETE, SKIP, TOP, BOTTOM, USE. . . which quite basically you would have duplicated the data handling in FoxPro which is trivially simple.

Of course it introduces many of the same problems that FoxPro had, but we were going to do it a little bit as a joke, but it seemed like a cheap shot. This is a .NET environment and .NET is a good language and I'm making a ton of money doing it. And I like it.
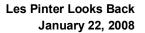
Carl Franklin: Well, we could write a class for you, Les. We could certainly do that.

Les Pinter: There was a guy, some kid from India, that did a fabulous job of duplicating most of the functions in FoxPro in .NET. I looked at it and I thought, "this is a really brilliant individual effort;" but it's never occurred to me to *use* it.

Richard Campbell: I guess therein lies the issue. Like you said you're not writing any code in Fox these days, you're just migrating apps. Do you just simply rewrite them or are you actually doing migration?

Les Pinter: Most clients don't want exactly the same application. They want certain things done, and their existing software is the guideline for what they want done. If there is a better way to do things, they want it done. If there is a way to share reusable code, they want that done. If there is a way that they did something wrong to begin with, they want it fixed. If there are things that users have never liked, they want better user interfaces. So, no, there are improvements to be made just everywhere.

I've been doing this for five years, so there's almost a metal mapping that takes place as they are showing me their code, scrolling it by the screen, I'm thinking, "OK, I know what that is. That's a B42, and that's a C7, and that's an A3." And if I had a naming scheming of how I was going to redo each construct in .NET, I already know what most of them are.

Carl Franklin: You know, first-class developers like you and me insist on knowing how their code performs before releasing their application into the wild. The ANTS Profiler from Red Gate Software is a very easy-to-use profiler for .NET developers that will profile the performance of your code so you can identify any performance bottlenecks before you ship. Using ANTS Profiler gives you that extra edge that makes all the difference in the world since you can fix any known issues before shipping and before anyone notices anything. ANTS Profiler can be a lifesaver, so if you want to get your hands on it, download a 14-day free trial from www.red-gate.com/dnr/antsprofiler or www.shrinkster.com/tq9.

Richard Campbell: So, your fluency in Fox is definitely helping you to break down what this app actually is into functional units that you then re-manifest in .NET, but it's not like you're running a magic tool that converts the code for you.

Les Pinter: Oh, that would be *spectacularly* bad. That would just suck like a Hoover. No, we wouldn't do that, wouldn't even think of doing it.

Carl Franklin: Did you take any training or read any books when you were learning the data stuff or did you just do like most people and crack the help file and try to figure it out?

Les Pinter: Well, there were about four books out on .NET data access when I first started writing my book on migrating FoxPro to .NET. I started when it was in beta. My son was an occasional partner of mine in business. He graduated from Berkeley, then went up and worked for Microsoft for a year. He built the micro language in Excel 5.0. .

Richard Campbell: Oh really?

Carl Franklin: Wow.

Les Pinter: … and then decided that he hated it. He was at Microsoft the first year the stock didn't go up. So at the end of the year, he said, "You know what? They're paying me for 40 hours a week, telling me they will fire me if I don't work 80 hours a week. . .

Richard Campbell: You give me options that are worthless.

Les Pinter: "They give me options that are worthless, and the manager of the Burger King down at the corner is making more per hour than I am. This is stupid. I'm leaving." So he came back to work with me, and then went out on his own. He actually bought a company whose biggest client was Schwab, and he did the Schwab website. So during the year

that everybody else was going broke, my son was well on his way to becoming a millionaire.

Carl Franklin: Wow.

Les Pinter: He said, "You know, you should quit whining about Microsoft killing FoxPro." He said, "Like grandma says, it's better to light a candle than to curse the darkness. Why don't you write a book on how to redo FoxPro applications in .NET and help all of your gray-haired buddies keep their jobs?" I said, "Okay, if you'll help me." He said, "Sure." A week later, we were out watching the Leonid's meteor shower on November 15, 2001...

Carl Franklin: Oh, that was…

Les Pinter: …and his back started hurting. Well, he had had cancer 30 years before and they treated him with radiation. By 6:00 in the morning, the pain was more than he could bear, so I drove him to California Pacific Hospital, and it was cancer.

Richard Campbell: It relapsed.

Les Pinter: The radiation had caused a sarcoma, completely different from the first cancer, Basically, we checked him into the hospital, and I stayed with him that day, the next day, the day after that, and every day for the next five months. He died five months later.

Carl Franklin: Oh, I'm sorry to hear that.

Les Pinter: I moped around the house for about a year, and finally my wife said, "Finish the damned book." I finished it. I took it to the publisher and said I wanted my son's name on the cover with mine. They said legal department won't let us and I said, "Well, the hell with it." My wife said, "Publish the damned book," so I went back and said, "Okay, just my name." The book came out, and six months later the phone started ringing, and I've been booked solid ever since.

Richard Campbell: So, he was right.

Les Pinter: Yes. It is very poignant that I owe the best career I've ever had to my son, who isn't here to share it with me.

Richard Campbell: Yeah, that is something.

Les Pinter: It's been five and a half years now. But, yeah .NET is a great environment. Things are done differently than they are in FoxPro, but it's not worse; it's just different.

Richard Campbell: What do you think of the Fox product now? Fox has become open source essentially. They have moved it to CodePlex.

Les Pinter: Yeah, it doesn't matter. I wrote an editorial years ago for – I wrote op ed for an outfit called Fox Talk, for a few years before I started writing for UTMag. I wrote an editorial called "All I Want." The first paragraph was, you know, I've been doing this FoxPro thing and software is operating out of a grocery store complex in Toledo Ohio. All I want is just for this product to be backed up by a solid company that can afford to market it and tell people how great it is, and blah, blah, blah. Then FoxPro version for Windows came out and it was even better. Or, FoxPro, what was it?

Richard Campbell: Visual FoxPro.

Les Pinter: Then I said, "This is great, but all I really need is something that can work with Windows." Then FoxPro for Windows came out. I said, "This is great; now, but all I need is something that's got object orientation." And then VFP came out. I said, "This is great."

And then Microsoft bought FoxPro, and I thought, "This is great." And then Microsoft stopped the advertising for FoxPro from one day to the next. It was just dead as a doornail. So after a couple of months of realizing this was really and truly company policy (this was shortly after the famous 'every time we sell a copy of FoxPro, we lose $10,000 in SQL Server license revenues' line). So I said, "And here I am back where I started. All I need is a company that will support the language that earns me my living." That was sort of my feeling about the whole thing, of "what are you going to do?" You can curse the darkness or light a candle.

Richard Campbell: Right.

Carl Franklin: You know what you can't do is write a song about it that anyone will have any idea what it means.

Les Pinter: I was going to write a song called the "Disappearing FoxPro Blues," but there was no audience that would get it.

Carl Franklin: That was good, yeah. I mean you go out in the bar and try that one and people will just look at you with a cocked head.

Richard Campbell: What?

Les Pinter: Well, you know, I spoke at Microsoft, at FoxPro conferences for years, but the last time there was a FoxPro conference, the gal who has been in charge of putting these on for a long time sent out the perfunctory call for speakers and she said, "And by the way, we're not interested in presentations about how to rewrite FoxPro in .NET." Why didn't she just say "Les Pinter is not invited?"

Carl Franklin: Oh man.

Les Pinter: It would have been a lot shorter, save all that ink and save a tree.

Carl Franklin: They should have just let you into the conference to tell the stories, man.

Les Pinter: Well, I think I have to go the conference and just walk around and buttonhole people one at a time. Those people who are still trying to base their career on FoxPro, there is some business there, but there is a lot more in .NET. We are swinging into a giant recession. You know companies; if they're in for the long haul, when business is booming, they need better software to help them grow with the expansion. My newest client has 3.6 billion dollars in jet engine orders that they can't fill because they don't have enough production capacity. China went and ordered 800 airliners and there aren't enough people in their factory to build all the engines they need.

Richard Campbell: Right.

Les Pinter: On the other hand, when things slow down and they've got time on their hands and nothing better to do, it's the perfect time to rewrite their software. It's *always* a good time to rewrite software.

Richard Campbell: Yeah, software has always been so leverageable that in tight times it is really about this is the least amount of money you could spend to get the most amount of results.

Les Pinter: Well, nothing wrong with efficiency, but I think that people now who are operating their shops with FoxPro need to be seriously concerned that they are no longer using a product that is no longer supported by Microsoft.

Richard Campbell: I think the announcement is that support line runs until 2015.

Les Pinter: Yeah, but that's irrelevant. What Microsoft has said by not. . .there's no FoxPro staff. What do they do? Do they call Randy if there is a problem?

Carl Franklin: Well, they've released it on an open source license now, right?

Les Pinter: Yeah. It's essentially an unsupported product. Supported but not supported. I

don't think that there is any guarantee that it will work with future operating systems. There are some FoxPro features that won't work with Vista. I tried to install Sage Accounting software the other day on Vista machine, and it wouldn't work. Installed it on XP, it runs fine, so Sage, the largest selling source code accounting system in the world and is written in FoxPro. So it's already happening to people. Since March, I think everybody who is a FoxPro shop has got serious concerns. If they don't tell the world that their product is written in FoxPro, their competitors damn sure will.

Richard Campbell: Yeah. There's no way of hiding from that.

Les Pinter: No way of hiding from it, and if a company has software that is written in FoxPro, they need to seriously think "What am I going to do it in?" Well, if it's JAVA, you can double the budget of what it would cost to do it in .NET. Besides that, I think Microsoft is not a bad horse to bet on.

Carl Franklin: No, it's not.

Les Pinter: So .NET is kind of the only game in town for a lot of us, and it's not a bad platform.

Carl Franklin: It's a great platform. It's the best platform!

Richard Campbell: Arguably, the best platform now. The dominance is substantial. It can't just be marketing that has made .NET so successful. Something tells me some software out there is working.

Les Pinter: Oh no. I write stuff all the time and I'll d sit back and run it and it's just gorgeous and it's fast and I love it. No, no, I don't have complaints about .NET. The difficulty of learning it is a problem that beginners have to deal with. I have a soft spot in my heart for people who are just trying to get into their career. I've probably received 2000 emails and letters in the last 20 years from people saying, "Thank you for your…" I answer every single tech support email and call that I get, every single one. People send me their program and say, "Why isn't this working?" I fix it and send it back. It was kind of fun going there after dinner and spend a half an hour, sip a little tea and fix a program. I've seen everything, so you know I look at it and say, "Oh, I know what that is," boom." I've gotten 2000 or so letters and emails from people saying, "You saved my career." "You saved my marriage," three or four of them said.

I went to speak at a FoxPro conference in Germany, and the guy who was the head of FoxPro user Group there, a very successful guy. He lives in a million-dollar house. We were sitting there about 3:00 in the morning getting our presentations ready for the next day and he just sat up, a propos of nothing, and said, "You know, your first book gave me my career." That's all he said.

Richard Campbell: It's quite a moment.

Les Pinter: I almost cried. I mean it was so touching. I've heard that story over and over. There' a guy named -- I won't give his name – he was the head of SQL Consulting in Microsoft Russia. I was sitting in Bill Gates' house having dinner with him about 12 or 13 years ago and I said, "You know, I've got this guy in Russia who is helping me publish my FoxPro newsletter there and if you guys would just drop the price of FoxPro to $50 in Russia, people there would love to get a legal copy. They'd love to be part of the real, honest world and they'd feel proud of themselves and whatever." Gates sort of said, "Well, the marketing guys are in charge of that." Two months later (this was in October), two months later, January 2nd or 3rd, they opened their first office in Russia, dropped the price of FoxPro to $70, and hired my guy away from me.

Carl Franklin: Oh, great, that…

Les Pinter: His name is Dimitri and he is now a very important guy in the SQL Consulting Division. One day after TechEd, I was being interviewed by John Box I guess on this radio show that he has, and Dimitri walked by and I said, "Dimitri, come on over. I want them to meet you." I told them the story about how I helped Dimitri. He and I started a business in Russia and I handed him the microphone and I said, "Tell them some stuff about what's going on with programming in Russia," and he said, "Well, before I say anything, I want to say that I owe my career and, in fact, all the success in my life to Les Pinter."

Richard Campbell: Nice.

Les Pinter: I was just choked up. He couldn't give me the microphone back. I couldn't talk.

Carl Franklin: Wow.

Les Pinter: That's been the great pleasure of my life and if I can do things to help beginners -- that was the start of this thread.

Carl Franklin: Yes.

Richard Campbell: Yeah.

Les Pinter: I love to do it, and beginners need help writing their first program. You know, I'm a speaker for INETA. . . .

Richard Campbell: Yes.

Les Pinter: I've done INETA presentations where people come up afterwards and say, "You know what? Yours is the first INETA presentation that I've ever understood. These people come in here and they talk about threading and enterprise services and I don't know what the hell that is. I'm still trying to get my first program to work. How do you do a data adapter? Why does the data adapter know how to do an update statement?" So, it's hard and that concerns me.

Carl Franklin: I have that experience a lot, or I had it when I was teaching. I would typically have people come up to me saying that they learned more in the first day of my class than like weeks of other classes, things like that. That's why you do it.

Richard Campbell: So Les, I'm looking at this book list, the ones that you've -- there are six books here and it's an interesting jump because they're in the '90s. It's all these serious FoxPro books, which surely look like the fundamentals people would need to know to learn how to program in Fox, and then the latest one from 2004, which is the Fox to VB.NET book.

Les Pinter: Well, FoxPro was my game for the longest time and that was what was more important to me, but then my son pointed out to me that these FoxPro people were going to need to jump ship, and we thought that the demise of FoxPro was imminent. Well, it took 10 years.

Richard Campbell: It was imminent for a long time.

Les Pinter: Yes. I think Microsoft was very aware of the fact that if they did something that was too obvious, that the Justice Department would give them a great deal of grief. So I think, they decided that benign neglect was the best way to kill it. And they've still got a lot of irons in the fire. Killing FoxPro wasn't the only thing that mattered to them. They had other products that they wanted to kill, too.

Richard Campbell: I think the Visual Fox community was so strong and kept driving the product forward for so long. It's interesting where it's at right now, where it seems like folks are finally going in different directions. The product hasn't been killed so much because as moved on. It is still out there in the forums. Like they never need to kill it. Finally, the market caught up to a point where they would be able to put it somewhere else.

Les Pinter: Well, I think the lack of advertising was just a. . .There was a magazine, FoxPro Advisor, that had a tremendous circulation and tremendous readership. The month after Microsoft stopped advertising FoxPro, FoxPro Advisor

went from 100 pages to about 20 because everybody knew what this meant. Microsoft paid a $750 million fine for monopoly practices in Europe; it's not like I made this up. They are a monopolistic company, and they do as much as they can get away with, but I don't think that they court disaster. The founder of the company is Bill's father, a lawyer. So the company's main. . .when the State Department shows up, I mean the Commerce Department shows up with seven lawyers, Microsoft shows up with fifty. They outspend them.

Richard Campbell: Well, and I've often said Bill Gates' real legacy is the end-user license agreement. It's really the legal part of the concept of selling software because before Microsoft software was included with the box. Every company that had software was selling a machine.

Les Pinter: Yes.

Richard Campbell: Microsoft was really the first to say, "Well, we're only selling software. We don't sell machines."

Les Pinter: I actually have a lot of juicy things that I just don't think I ought to say but…

Carl Franklin: Oh, go ahead, you're among friends.

Les Pinter: Microsoft's first product that they tried to mass market was a C compiler, and the price was 2% of your gross sales of your product that you compiled with it. *Nobody* would go along with it. Nobody, I mean it didn't matter that it was 2%. How dare they? They didn't have the right to do that. Nobody has the right to 2% of a piece of the action. It was just so, I don't know…

Carl Franklin: Ballsy.

Les Pinter: No, greedy. Well, what is SQL Server? You pay to have access to your own data. What is Web Services? I think that Microsoft's dream has always been to put a parking meter on everybody's desk.

Carl Franklin: Toll booth.

Les Pinter: I think that we have not yet seen the end game of .NET. I think that we're seeing the beginning of it but I…

Carl Franklin: Well, then again, Les, you could write your own SQL Server.

Les Pinter: No, but if it were really good, they'd just buy it and kill it.

Richard Campbell: That's not cynical. No, no, not at all.

Les Pinter: SQL Server is simply a mechanism of pricing. It's paying for stuff a little bit at a time. People buy things on the installment plan they would never pay cash for. What does Microsoft have now, 20 products that are based on SQL Server? Almost everything has SQL Server behind it. There will be 50, there will be a 1,000.

I'm 61 now. I'm not going to live long enough to see all the fabulous things that are going to happen in this industry. In fact, my son, practically his last words were, "I just wish that I could stay around and see what technology is going to bring." I feel that way too, but there is a direction to all of this and it is not all random. Some of it is being thought out in company offices right now. Not everything that people hope will happen will actually happen, but I would just love to see it. I mean, it's just been such a thrill to be involved in technology instead of out trying to keep 18-year-old kids awake telling them economic theory.

Richard Campbell: Yeah. It's so much innovation. We move so quickly in this industry and there are very little others… I actually had this conversation with my daughter who is 16 now where I said, "You know, it happens to be that the computing industry makes a lot of money. There's a lot of opportunity in it, but if there wasn't, would I still do it? Am I actually here for the money or was I here because I like the work? If it was gardening, if I was in love with gardening and that is what I did, would I really have the same kind of opportunities? No, it is not the same opportunities, but I would probably still do it." We like computing because computing is very interesting. It happens that you can make a living at it as well.

Carl Franklin: Well, I've learned long ago that I can't just do things for the money. I've had the most miserable high-paying jobs that I care to ever have and I wouldn't wish it on anybody.

Les Pinter: Oh yeah. I would rather shoot myself than be a DBA, for example. I mean what a crummy job! You know why they pay you $250,000 a year to be a DBA in New York City?

Richard Campbell: Why is that?

Les Pinter: So you can afford a $4000 a month apartment that's five minutes' walk away from work at two in the morning if they want to call you in.

Richard Campbell: Right.

Les Pinter: That's the reason. You don't get to keep that money.

Richard Campbell: Yeah, it is just to cover the expenses of doing your job.

Les Pinter: Yeah, net up taxes and your overpriced Manhattan apartment, you're making about $8 an hour. It's a horrible job. But programming, I mean if this weren't my job, it would be my hobby. I *love* what I do.

Carl Franklin: Yeah, me too.

Richard Campbell: Yeah, and it's an interesting part of this whole equation is that it did grow out of the hobbyist, that people did it for fun and it became business.

Carl Franklin: Les, have you been able to bridge the gap between music and programming in any way?

Les Pinter: No. Well, yes; I was finally able to justify a Martin with the money I made last year. That's about it. It is such a cherry axe, it's just amazing.

Carl Franklin: Yes. This is new for you.

Les Pinter: I played acoustic, and I've just gotten back to metal strings again with the Martin, but, wow, what a beautiful, beautiful guitar.

Richard Campbell: Yeah because you were playing guitar when you were 16. You just kept it up just for fun?

Les Pinter: Well, I had a nice voice for many years and I did mention it was the '60s and I was better looking, right?

Richard Campbell: Right.

Carl Franklin: Yes.

Les Pinter: I don't need to elucidate any further, do I?

Richard Campbell: Nope.

Les Pinter: I knew a lot of chicks, okay? Lots and lots and lots of chicks.

Carl Franklin: Say no mo!

Les Pinter: Just looking at my picture and hearing this conversation must be truly revolting, but it was the '60s, okay? I once walked up to a girl who was standing in front of the library and I said, "Excuse me, do you have the time?" She thought for a second and said, "Sure, I've got time." I'm not kidding! I said, "No, no. What time is it?"

Richard Campbell: "No, really, I just want to know what time it is."

Les Pinter: Things were different. I did enjoy the music business, but it was basically a way to meet chicks, and of course now programming is the way to meet chicks.

Carl Franklin: Oh yeah, those programming conventions.

Richard Campbell: That's it, their packed.

Carl Franklin: Their packed, yeah, just a veritable…

Les Pinter: I have two stories I can't tell you.

Richard Campbell: More.

Les Pinter: No, just two.

Carl Franklin: Maybe if you told them in the third person about somebody else.

Richard Campbell: There was this guy I knew. . .

Les Pinter: There was this guy I knew that went to his first FoxPro convention and the prettiest girl in the conference came up and put her room key in his pocket.

Carl Franklin: Nice.

Richard Campbell: Nice.

Les Pinter: And he went back the next year and a different girl did the same thing. I don't know who this guy was.

Carl Franklin: I know her! Richard, we know her.

Les Pinter: He must have been a lot better looking - and he was single at the time, by the way.

Carl Franklin: Oh, boy.

Richard Campbell: Wow.

Carl Franklin: Those FoxPro programmers.

Les Pinter: I was between marriages.

Richard Campbell: Obviously, we were going to the wrong conferences.

Carl Franklin: The wrong conferences.

Les Pinter: Oh yeah, FoxPro: it was hot.

Carl Franklin: So, we talked about guitars a little bit. You probably get asked this over and over again. I think we've talked about it on .NET Rocks! a hundred times, but I am always interested in hearing what everybody has to say about the correlation between music and programming.

Les Pinter: Oh, it's universal. The first few years that I was in programming, everybody that I knew who was really a good programmer played oboe or guitar or violin or something. It was just amazing. It seems that always the best programmers were also musicians and some of them really accomplished musicians.

Carl Franklin: Yeah. I found the same.

Richard Campbell: They all needed to eat, so they programmed.

Carl Franklin: So, why is that?

Les Pinter: I guess it was partly that, but also there is something about the creative process and making something out of nothing, which is what music is, and programming is sort of the same thing. "Okay, I've got a problem. How do I solve this?" It's kind of a motet, isn't it? It's kind of a little baroque formula.

Carl Franklin: I have a little bit of a theory about this which is when you practice an instrument, you really have to play and think at a lower level and a higher level and be able to switch back and forth pretty quickly. Like you're working on a technique or scale or a lick or something like that, you really have to break it down into smaller pieces and slow it down and practice and technically understand what is going on, but at the end of the day, you have to perform. You have to create something out of it that's bigger, at a higher level, and that's very much the programming experience as well.

Les Pinter: There are a lot of analogs between programming. Well, do you remember the 1980 Pulitzer Prize winner for nonfiction "Gödel, Escher, Bach: An Eternal Golden Braid," by Hofstadter?

Richard Campbell: I happen to own a part of a company called Strangeloop and that is our mantra book.

Les Pinter: I used that as a textbook in a finance course that I taught in the MBA program.

Richard Campbell: Oh man.

Les Pinter: My students didn't know what the hell I was talking about.

Carl Franklin: I don't know what you're talking about, so fill us in a little bit.

Richard Campbell: Gödel, Escher, Bach. Tell them all about it, Les. It's a book; it's something special.

Les Pinter: Well, you might say that I could tell you but it won't fit in the margin of this conversation.

Carl Franklin: Give me a summary.

Les Pinter: Only one of you laughed at that, so somebody read the book.

Richard Campbell: The author of the book is a guy named Doug Hofstadter.

Les Pinter: Yes, that was a reference to Fermat's last theorem, never mind.

Richard Campbell: Yeah.

Les Pinter: But two of us are feeling very clever right now.

Carl Franklin: Don't worry, I'm used to it. I'm used to it. I'm in the presence of greatness here folks. Seriously outclassed. It's okay.

Les Pinter: No, it's just an insider's joke. It's a math joke.

Richard Campbell: Yeah, it is totally a math joke. Gödel, Escher, Bach, the guys you're referring to are all in, at their cores, these mathematicians, right?

Les Pinter: And they're dead.

Richard Campbell: And, of course, they're dead.

Les Pinter: They're dead so don't forget that. There's a moral here.

Richard Campbell: Yeah. It's all part of it. And Hofstadter has gone on to write another book called "I am a Strange* Loop," which surely talks about this whole concept of recursion influencing systems. People are essentially recursive, that they learn from their actions to change behavior.

Les Pinter: Well, one certainly hopes so except certain of our political figures. Come on. Let's get into politics a little bit. Please.

Carl Franklin: No. Politics is something we have never ever talked about on the show, and I kind of like it that way.

Les Pinter: All right. I will not reveal how desperately I want my candidate to win. I would just say he's better than yo momma.

Carl Franklin: I can tell you a generic political joke that you can say about any political figure that you hate.

Les Pinter: What, they're lying weasels?

Carl Franklin: No, no, no. There are two things I hate about him: his face.

Les Pinter: That's good. Well, I wrote an editorial a while back, just on a serious note. I went to Rice University to get a Ph.D. in Economics because I had just watched what the medical profession was doing with my son at the Cancer Hospital and I was sickened and appalled, and I thought somebody has got to change this. So, I actually went off to get a Ph.D. in economics so that I could expose the medical system of the United States for the terrible, terrible criminal enterprise that it was. It's a hundred times worse today. My politics is not so simple as to say I want my party to win. I don't have a party. There is nobody that thinks as radically as I do about what needs to be done, but it's got to be fixed. It's not the only problem, the medical problem. The school system that can't teach our kids. So, I don't know. I guess this gets off into politics, but programming is not the only thing in the world. It's just how I make my living. I love music, but boy, I wish the world would get better and I guess at some point, instead of wishing it, I should do like my son said: quit cursing the darkness and light a candle.

Carl Franklin: Right.

Les Pinter: So, I don't know.

Carl Franklin: Well, on a lighter note, are you at your computer right now, Les?

Les Pinter: I am.

Carl Franklin: Go to shrinkster.com/txj.

Les Pinter: Okay. Oh yeah, I actually went to shrinkster.com earlier to see what you were talking about, and it's a cute idea.

Carl Franklin: Yeah. It's pretty cool.

Richard Campbell: But it ultimately points to a site.

Les Pinter: Yeah.

Richard Campbell: In this case, that's a… Have you pulled it up? The picture?

Les Pinter: Shrinkster.com slash what?

Carl Franklin: TXJ. The listeners can do this too.

Les Pinter: All right. Free air guitar.

Carl Franklin: My gift to you at the end of the show.

Richard Campbell: Please take one.

Carl Franklin: It's basically on the street. It's a rack, a big rack that holds like 20 guitars. There's no guitar and there's a sign that says "Free air guitars. Please take one."

Les Pinter: I love it.

Carl Franklin: And the guy walking by has a very confused look on his face.

Les Pinter: By the way, my phone is making beeping noises and it may actually die shortly.

Carl Franklin: Well, I think we're just about done anyhow.

Richard Campbell: We're done.

Les Pinter: Excellent. Well, I have much enjoyed talking with you gentlemen.

Carl Franklin: We have certainly enjoyed it as well, and I'm sure the listeners have too.

Les Pinter: All right. Well, if your listeners are interested in anything that I'm doing, they can go to pinter.com, P-I-N-T-E-R-dot-com, and also foxto.net, F-O-X-T-O-dot-net, which is a little more specific on some of the newer things that we're doing.

Carl Franklin: Okay.

Les Pinter: And my editorials at utmag.com where I rant.

Carl Franklin: Great, and tell George Lucas that Jar-Jar is dead, okay?

Les Pinter: Well, I have had a wonderful career and programming has just been a great way of life. I really enjoyed it and I hope that your listeners can have as much fun at it as I've had.

Carl Franklin: Well, let's hope so. Thank you Les.

Les Pinter: My pleasure.

Carl Franklin: Thank you and we'll see you next time on .NET Rocks!

[Music]

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