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Carl Franklin

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Richard Campbell

*Text Transcript of Show # 279*  
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**Ken Getz on VSTO and Other Stuff (tm)**  
**October 9, 2007**  
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[Music]

**Lawrence Ryan:** Hey, Rock heads! Watch out for that guy on the unicycle 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 #279, with guest Ken Getz, recorded live, Tuesday, September 25, 2007. .NET Rocks! is brought to you by Franklins.Net - Training Developers to Work Smarter and now bringing world class expert-led training in C#, ASP.NET, VB.NET, SharePoint, BizTalk, Team System, and Workflow Foundation onsite to your development team, details online at [www.franklins.net](http://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](http://www.telerik.com), and by DataDynamics, makers of ActiveReports .NET, simple, powerful, and cost effective reporting for Windows Forms and ASP.NET web applications, online at [www.datadynamics.com](http://www.datadynamics.com). Support is also provided by CoDe Magazine, the leading independent magazine for .NET developers, online at [www.code-magazine.com](http://www.code-magazine.com). And now, the man who says, "What Ken wants... who writes this stuff?" your host, Carl Franklin.

**Carl Franklin:** Thank you very much and welcome back to .NET Rocks! It's Carl Franklin. I'm here with Richard. Hey, Richard Campbell.

**Richard Campbell:** Hey sir. I am glad to be home for a whole two weeks.

**Carl Franklin:** Yeah, I'm still getting over the jetlag, but man, good to be home.

**Richard Campbell:** And I came home to 10, count them, 10 1-terabyte hard drives.

**Carl Franklin:** Now, that's just wrong.

**Richard Campbell:** My 2-terabyte erased, full, and I need the upgrade so I told my local supplier, "Get me some of those new Seagate Barracuda 1-terabyte drives," and he got me 10 of them.

**Carl Franklin:** Okay. So, where are you going to put 10 1-terabyte hard drives?

**Richard Campbell:** I got a six drive array and a four drive array coming together.

**Carl Franklin:** Okay. Are these NAS devices?

**Richard Campbell:** I've backed everything up from the old array onto the 1-terabyte drives. Now, I'm going to rebuild the array today.

**Carl Franklin:** So, are these in a machine or is this a NAS device?

**Richard Campbell:** All in the machine.

**Carl Franklin:** Nice.

**Richard Campbell:** Yeah.

**Carl Franklin:** Well, Richard, let's just get started with Better-Know-A-Framework, shall we?

**Richard Campbell:** Excellent.

**Carl Franklin:** And this week, Richard, I'm going to read an email message about Isolated Storage, which was last week's...

**Richard Campbell:** Oh, yes. You stirred up a lot of discussion around Isolated Storage.

**Carl Franklin:** Yeah, apparently, I missed the most important thing which is the fact that you can read and write files to disk in a partial trust environment. So, let me read this from Christopher Loaf, "Hi Carl and Richard. First of all, I have to say that you're doing a fabulous job. I'm enjoying your show during workouts and during my travel to and from work. You keep me enlightened and once in a while you give me a big laugh, thank you. It has been some time now and I thought to myself, 'I have to write them and give them a comment on that thing, but I've kept it for myself those times. This time, I couldn't hold back. In the Better-Know-A-Framework part of show #278, you're mentioning the Isolated Storage namespace. I believe that you missed the greatest point about these classes and that is that it allows you to write and read files to disk in a partial trust environment. Your code only has to be granted the isolated storage file permission permission and furthermore, you can define the scope of your storage, that is, if you want it accessible on a per user, per application, domain or assembly basis, see the isolated storage scoping numeration for all available options and here is the key, isolated storage is the way to go if you're building ClickOnce applications and want to be sure that your application will be able to write those files to disk. Keep up the good work. Best regards, Christopher Loaf from Sweden." That's it man, ClickOnce.



**Richard Campbell:** Yeah, interesting point.

**Carl Franklin:** I didn't even think about ClickOnce. I've done ClickOnce applications and I just happen to not have needed to write files locally in a partial trust situation.

**Richard Campbell:** And the whole issue here is that the context that ClickOnce runs in is limited trust.

**Carl Franklin:** Well, yeah, it can be. Sure. "P.S. you don't have to reverse engineer the Windows code to figure out the isolated storage paths. Just check out this page at MSDN," and he points us to a URL, which I will put on the website.

**Richard Campbell:** Right.

**Carl Franklin:** So, there you go. That's our Better-Know-A-Framework for this week. Good stuff.

**Richard Campbell:** Speaking of commuting with .NET Rocks!, I have an email.

**Carl Franklin:** Oh, this isn't the one that I read in Bulgaria, was it? At dinner that night?

**Richard Campbell:** No, that's another one.

**Carl Franklin:** Oh, you're not going to read that one?

**Richard Campbell:** Not this time, but I will read it next time. I'm trying to build up the emotional fortitude to read that email.

**Carl Franklin:** All right. Thursday's email is going to be a whopper. Let me just put it that way.

**Richard Campbell:** Okay, yes, but Tim Heuer wrote us an email.

**Carl Franklin:** Oh, right. Yeah.

**Richard Campbell:** Tim here works for Microsoft, a good friend of the show. He's listened for a long time and been a big supporter and just sort of dashed off a note to us saying, "I'm a happy man lately. Because of Silverlight, the Diamondbacks winning the NL West or me getting a new laptop, no, but those helped. Mostly because I've got .NET Rocks! in the dash of my car."

**Carl Franklin:** Awesome.

**Richard Campbell:** "I've struggled with getting caught up on podcasts because I didn't have a good workflow to listen to them." Spot the geek, workflow for listening.

**Carl Franklin:** Yeah, really. A workflow for listening, come on, man. Come on, get a life.

**Richard Campbell:** "On my laptop, I found myself always doing something else. At home, my kids are always needing my attention. In the shower, well, let's not go there." Tim's badly behaved. "Ah, but in my car, yes, on the magical one-and-a-half hour commute twice daily, I had the time, but alas, not the ideal setup. FM radio transmitter sucked! Tape cassette adaptor? Argh, there's enough wires already. Headphones? Can't miss that emergency vehicle, but I've completed my setup and now I have .NET Rocks! in my dash. It cost me some coin, but I did it and it is a wonderful sight." And included in the email, a photograph of the dash of his car, obviously a BMW, I might point out, saying .NET Rocks! right on the dash.

**Carl Franklin:** Yeah, he's got the LED printout there.

**Richard Campbell:** Right.

**Carl Franklin:** Yeah.

**Richard Campbell:** And then he wrapped up with, "Keep the great contents coming guys. I'm refreshed now and finally listening and getting caught up to date. Tim. P.S., you can see my tribulations at my blog and the log is [timheuer.com](http://timheuer.com)." That's T-I-M-H-E-U-E-R dot com.

**Carl Franklin:** And we'll have to provide a direct link to that article so people could see the photo. It's really cool.

**Richard Campbell:** You bet. Thanks Tim, you nut.

**Carl Franklin:** Yeah, awesome. The announcements this week, of course, we've got DevConnections coming up here.

**Richard Campbell:** Woohoo! Looking forward to it. We got a lot going on.

**Carl Franklin:** We've got TechEd.

**Richard Campbell:** By the way, I've been asked to do a couple of presentations in ASP.NET track at DevConnections in Las Vegas.

**Carl Franklin:** That's great.

**Richard Campbell:** Yeah. So we'll be talking about scaling.

**Carl Franklin:** Paul Litwin finally came around, did he?



**Richard Campbell:** You know what? He had a cancellation and he needed somebody to fill in.

**Carl Franklin:** Ah, he had a cancellation, okay.

**Richard Campbell:** Could you be any more sarcastic?

**Carl Franklin:** Anyway, well, that's good. After DevConnections, hey Richard, when is DevTeach in Vancouver?

**Richard Campbell:** DevTeach is the last week of November. That's actually the week after Thanksgiving, US Thanksgiving, as opposed to this past weekend which was Canadian Thanksgiving.

**Carl Franklin:** Just in case anybody cares.

**Richard Campbell:** Just in case anybody cares. So, that is November 26-29.

**Carl Franklin:** Cool.

**Richard Campbell:** And besides DevTeach, there's also TechEd Barcelona which is two weeks. We're not going to be at the first week because we're both in Las Vegas for DevConnections, but the second week which is the IT Forum Week, Greg Hughes and I are going to be there the whole time.

**Carl Franklin:** And, of course, if you're looking to do the New York City tour, what are you waiting for? Just pick up the phone and call Infusion or check out the blog post that we did about this. You can go to New York City, live in an apartment in Manhattan rent free for a year. They'll move you, they'll pay you a nice salary, and on top of that, it's a great company to work for and some really cool people down there and they've got a lot of .NET Rocks! listeners now working for them, a whole handful. They just keep migrating to New York. It's great.

**Richard Campbell:** Go hang with your peers.

**Carl Franklin:** That's it. So, you can read about that at [shrinkster.com/kh6](http://shrinkster.com/kh6). Before we get to Mr. Getz here, he's waiting patiently on the line, let's get to the contest this week. This week's question is what is the only browser-based code technology that Jack Herrington does not work with? And the answer?

[Drum-Roll Noise]

Java.

**Richard Campbell:** Oh, yes.

**Carl Franklin:** Yeah.

**Richard Campbell:** He did everything else though.

**Carl Franklin:** Yup, just about everything else. Almost everybody who submitted it this week got this one right, which is good. I don't have to pick on anybody.

**Richard Campbell:** Cool.

**Carl Franklin:** And the winner, yeah, the winner, that would be a good idea.

**Richard Campbell:** Yeah, get to the winner.

**Carl Franklin:** The winner is Brian Piseck and I hope I got that right from Wisconsin Rapids, Wisconsin.

**Richard Campbell:** Congratulations, Brian.

**Carl Franklin:** Golf clap.

**Richard Campbell:** You win yourself a Tom Bihn Brain Bag.

**Carl Franklin:** That's right. He's got a Brain Bag coming on the way and he's going in the pool, of course. October 30th we're going to pick from all the weekly winners and two of those people will win a 24-inch LCD monitor from Dell.

**Richard Campbell:** Awesome.

**Carl Franklin:** Awesome. So that's the contest that we're doing, of course, the Barcelona TechEd Sweepstakes or the TechEd Barcelona Sweepstakes, I should say, sponsored by Microsoft Europe. Hey Richard, guess what?

**Richard Campbell:** What?

**Carl Franklin:** Our guest is Ken Getz, again.

**Richard Campbell:** Well, it's only been a couple of years.

**Carl Franklin:** Yeah, Ken Getz is a senior consultant with MCW Technologies and splits his time between programming, writing, and training. He specializes in tools and applications written in Visual Studio .NET and Visual Basic. Ken has had a long relationship with Application Developer's Training Company, [appdev.com](http://appdev.com), and has been training and writing courseware for AppDev for almost 10 years, probably more like 12 years now. Ken writes for MSDN Magazine and MSDN Online. You can see

him at DevConnections. He speaks all over the world. Ken Getz, how are you sir?

**Ken Getz:** Great, how are you guys doing today?

**Carl Franklin:** I'm doing all right. You know, on the way over here, I stopped and got gas and then of course, I heard this sound at the gas pump and I went inside the mobile station and I found the noise. It was a pint of Ben and Jerry's New York Super Fudge Chunk calling my name and so I got that and I actually brought a spoon with me too because you can't get a spoon in a convenience store but then I immediately spilled it on my T-shirt so I'm doing this show with a brown badge of courage on my collarbone.

**Ken Getz:** No comment whatsoever.

**Carl Franklin:** I thought I'd tell you that.

**Ken Getz:** I find myself in a lovely TownePlace Suites in San Jose California. I am taking a week off from real work and playing the piano this week.

**Richard Campbell:** Good for you.

**Carl Franklin:** Hey, me too!

**Ken Getz:** You too?

**Carl Franklin:** Me too. I just got a piano.

**Ken Getz:** You did? You did.

**Carl Franklin:** Yeah.

**Ken Getz:** I am playing in the orchestra pit for a musical being done here by a friend and I haven't done this in a long time.

**Carl Franklin:** Oh, you're playing and I'm just noodling. You're actually playing it.

**Ken Getz:** Yeah, I'm actually playing performances at night and all that kind of stuff.

**Carl Franklin:** That's wonderful.

**Ken Getz:** It's kind of a nice change from programming, sitting there just reading the music and following along.

**Carl Franklin:** It certainly is. Music notation is like source code in a way.

**Ken Getz:** I firmly believe that playing the piano is very similar to typing on the keyboard but what the heck.

**Carl Franklin:** It's true, true.

**Ken Getz:** So here I am in this hotel and all I brought was a tablet PC, my new ThinkPad tablet PC, which I love but I didn't bring the base with the DVD player in it.

**Carl Franklin:** Dude, this is ridiculous, man. I'm using a tablet pc right now and I was just playing the piano. I mean pretty soon you're going to tell me you're a VB programmer and that would just be too much for me to handle.

**Ken Getz:** I don't know about that. My partner Brian Randall sends me a DVD that he wants me to do some editing on a lab he's written and I knew he was going to do it I just forgot to bring the base with me. So, I go down to the lobby of the hotel where they have a PC and I try to copy this stuff onto my laptop, onto a USB drive, and it's locked down so tight I can't even copy files onto my own drive, much less theirs. So then I go to the front desk and say, "May I use your computer just to copy these files from here to here?" and they looked at me like I have stepped out of a spaceship from Mars. I said, "Just let me sit down." They won't let me touch their computer and she says, "Well, I'll do it," and so she sits down and 20 minutes later, she calls out from the backroom, "Hey, it can't read your DVD. It must be broken."

**Carl Franklin:** Ah, yeah.

**Ken Getz:** So, I have to wander off to Fry's where there was one locally right around the corner.

**Carl Franklin:** More likely their DVD player was bought during the Kennedy administration.

**Ken Getz:** Or she's just not computer literate.

**Richard Campbell:** Yeah.

**Ken Getz:** I stood there at Fry's and attempted to copy the stuff on one of their computers onto my USB hard drive, but their friendly fail staff kicked me out so here we are. You think you're here in Silicon Valley somebody's got to have a computer. Anyway, so what's the topic of the day?

**Carl Franklin:** Yeah, I guess we're going to talk about Vista, Visual Studio Tools for Office. It's been a while since we visited that topic and you're just the guy for it.



**Ken Getz:** Yeah. I seem to have spent a lot of time with it since its initial release back for Visual Studio 2003. These folks have just done an amazing job. I mean I spent how many years, Richard and I began in the same sort of place.

**Carl Franklin:** Right.

**Ken Getz:** Probably Carl too -- writing VBA code years and years ago.

**Richard Campbell:** Yeah.

**Ken Getz:** And VBA at this point is a) painful and b) still used by thousands and hundreds of thousands of developers.

**Carl Franklin:** Yeah.

**Ken Getz:** So, you just sort of want to let them move into the managed code world.

**Richard Campbell:** Do you mean to tell me if I fire up Word 2007 and I hit Alt+F11, it still pulls up the code window?

**Ken Getz:** Yeah, it still does. It brings up the macro editor for creating customizations for Visual Studio.

**Richard Campbell:** Oh, man.

**Ken Getz:** But it's managed code in Visual Studio, it's not VBA. The habit I still fall into myself, I press Alt+F11 sometimes in Visual Studio. That's not the keystroke, Alt+F7 does it for you or F7 or one of those things. Anyway, so we have managed code that works with Office and it started out in 2003 I guess with a version which was a nice effort.

**Richard Campbell:** Wasn't it a GUI free version?

**Ken Getz:** Yes, it was only code so you have to sort of imagine what it was going to look like in the product. This is after you press F5, but they did a great job of letting you press F5, it would load up Word or Excel, you can single step to your code and it was fun.

**Carl Franklin:** What is the current state of Visual Studio tools for Office? When was the last time they had an update and what's new?

**Ken Getz:** Well, I guess no one really wants to know the whole history but...

**Richard Campbell:** Well, it was 2003 and then it was 2005 and now 2007?

**Ken Getz:** Well, no, there was 2005 which had a UI...

**Richard Campbell:** Yeah.

**Ken Getz:** But it could only create document customization, so document level, like each document have its own customization and it costs money.

**Richard Campbell:** Right. You had to buy it.

**Ken Getz:** You had to buy it. Then in 2005, Second Edition came out and it only does add-ins, which for my perspective is better anyway and it's free.

**Richard Campbell:** Okay.

**Ken Getz:** Anybody can download Visual Studio 2005 Tools for Office Second Edition...

**Carl Franklin:** Oh, boy.

**Ken Getz:** The actual name is, in case you care, I think Visual Studio 2005 Tools for Office Second Edition for the Microsoft Office 2003 System or something like that, a horrible name.

**Carl Franklin:** You've got to be kidding me.

**Richard Campbell:** Oh no, that's going for the longest name yet.

**Ken Getz:** It's something like that and then for Visual Studio 2008, they've made incredible strides and they have a nicely integrated, right there in Visual Studio, every single person who's got Visual Studio Professional 2008, gets their templates and their code and their runtime and it's theirs.

**Carl Franklin:** Really?

**Ken Getz:** So I think they'll finally hit critical mass with this fourth version.

**Richard Campbell:** So, VSTO just becomes part of Visual Studio as of 2008?

**Ken Getz:** That's right.

**Carl Franklin:** Now if you don't have Office installed, let alone the Studio Tools for Office, are you not going to see those templates?

**Ken Getz:** If you don't have Office installed you won't see the templates.

**Carl Franklin:** Yeah.



**Ken Getz:** But you don't get anything besides Office and Visual Studio.

**Carl Franklin:** Got it. Yeah, that's important actually.

**Ken Getz:** And Visual Studio 2008 adds support for like creating add-ins for InfoPath for Visio, for creating work flows for SharePoint.

**Carl Franklin:** SharePoint, right.

**Ken Getz:** And then creating add-ins at documents for Word and Excel. The only thing they've missed and continue to not be able to get is Access.

**Richard Campbell:** Access?

**Ken Getz:** For some reason, in the beta for SE, the previous version, they had Access support in there.

**Carl Franklin:** Now what do you mean by that? You don't mean just accessing the MDBs or databases because we can do that.

**Ken Getz:** No, no, from anywhere.

**Carl Franklin:** You mean like reports?

**Ken Getz:** But this would be creating a managed add-in for Access.

**Carl Franklin:** Oh.

**Ken Getz:** Creating managed code to replace the VBA code in an Access application.

**Carl Franklin:** I see.

**Ken Getz:** What you can do, you can just create a COM add-in, a normal shared COM add-in in managed code with the pane and for Word and Excel it's incredibly easy. So, customizing the ribbon they've made a nice -- I hope you've seen this thing, the ribbon designer in Visual Studio 2008.

**Carl Franklin:** I haven't seen it.

**Ken Getz:** Anybody can customize the ribbon. You try doing that without the tool, it's very hard.

**Richard Campbell:** What do you mean by customized?

**Carl Franklin:** You mean like add your own tabs to the ribbon kind of thing?

**Ken Getz:** Yup. Now here's the problem, what if you want to remove a tab, what do you do? I'm asking that question rhetorically.

**Richard Campbell:** I don't know, it doesn't sound like it should be hard.

**Ken Getz:** Well, using their designer, you can't, but if you want you can always create standard XML customizations as you would have before Visual Studio 2008 and that lets you do anything. You can move tabs, add things, re-purpose existing ones. If you want to you can have the open button close the current document or whatever you want to have it do.

**Richard Campbell:** Ooh, April Fool's Day jokes.

**Ken Getz:** Yeah, but Visual Studio 2008 makes that all pretty straightforward and simple.

**Carl Franklin:** Hey, this is Carl. I just want to take a minute out of the show to tell you about Telerik's Q2 2000 Tools update, which can be summed up this way: Blazing fast performance for ASP.NET, WPF like visual effects for Windows Forms, and codeless reporting. The AJAX-based content editor is now 76% faster and much more intuitive. The grid also received a performance boost, plus PDF export, frozen columns and they've even added a new awesome scheduling component. What I find even more intriguing is Telerik's Windows Forms Suite. It's unbelievable that it offers WPF-like visual effects like scaling, rotation, object motion, transparencies, and so on without WPF. As a result, you could have grids, tree views, ribbons, and more with a previously impossible level of interactivity and appeal. Telerik has recently added CAB support, which makes the component setup perfect fit for large enterprise applications. Lastly, with Telerik reporting, you can create advanced business reports in Windows, web or PDF format using pretty much design time only. Wizards, expression builders and converters help you with the design, styling and integration. You'll also be amazed to see some unique features like CSS-like styling and conditional formatting. See what all the fuss is about. Download a trial at [telerik.com](http://telerik.com) and don't forget to thank them for sponsoring .NET Rocks!

Now it seems to me, Richard, we've probably done four or five different shows since we started .NET Rocks! on Visual Studio Tools for Office or whatever the "*name du jour*" was and this time Ken I think I want to ask questions a little bit differently because I think we're beyond the whole "How does it work?" and "What's the UI experience like?" Let me ask you this, you've obviously done a lot of work with this tool and written a lot of code, what are some of the absolutely coolest demos or even programs that you've written using VSTO that you could share with us?

**Ken Getz:** Well, I tend to write examples more than applications, but the fact is that things that were incredibly hard to do are now very easy. Things like reacting to events in Word or Excel or Outlook are now really easy because you can just hook them up and munge code. You know what is really cool, one thing that my jaw dropped when I saw how easy it is to create an Outlook form region using this newest version of VSTO. You know Outlook forms? The designer from hell?

**Carl Franklin:** Right.

**Richard Campbell:** Yeah. I've always thought that Outlook not Access was the red-headed stepchild of Office, not only just from a product point of view but from a developer point of view. It was arduous.

**Ken Getz:** And it was, because when Outlook first came out, they didn't even support VBA.

**Richard Campbell:** Right.

**Ken Getz:** They only had scripting, then they added VBA support but only in a sort of half-way sort of way.

**Richard Campbell:** Well, it seemed like the object model just wasn't all there.

**Ken Getz:** And they still keep trying to fix that object model. Have you ever had Randy Byrne on?

**Carl Franklin:** No.

**Ken Getz:** Randy Byrne was a person like us out in the real world. He focused on Outlook and then they took him on to the Outlook Team to manage the object models stuff on Outlook and this guy know every single thing about that object model.

**Richard Campbell:** And he's the only one?

**Ken Getz:** No, there are others, but you know. Sue Mosher knows a lot too but Randy is the guy. He's been working on it, yes, it's still problematic but Visual Studio Tools for Office makes it so much better. So you want to create a form at Outlook, you don't like their forms, you want to make your own?

**Richard Campbell:** Right.

**Ken Getz:** You could die before Visual Studio 2008 doing it.

**Carl Franklin:** With InfoPath and SharePoint and all of these things in Visual Studio, what do you use? I mean because I don't run Exchange but I

guess that's the main application of Outlook forms is talking to Exchange?

**Ken Getz:** Not necessarily, you can have Outlook hosted forms too.

**Carl Franklin:** For what?

**Ken Getz:** Say, for example, the canonical example is adding a form region to the bottom of every email message you write and in that form you might pull data from some database somewhere, Northwind data. So you choose a customer and choose an order for that customer, click a button and it inserts, into your email message, a formatted message to that customer about that order. So it's just part of the email form that you use for submitting an email message.

**Carl Franklin:** Sounds more like a report than a fill in form. Right?

**Ken Getz:** Well, any place you type email, you can have code automate that process for you and then you could modify it because it's just an email designer.

**Carl Franklin:** I see.

**Ken Getz:** So it makes it really easy to add your own data to Outlook...

**Carl Franklin:** For whatever purpose, yeah.

**Ken Getz:** Like contacts, when you enter contact now, doesn't it drive you nuts that there's no drop down list of every company, of every person you already have in your contact list?

**Richard Campbell:** Oh, yeah. There is that mechanism where it sort of remembers the email addresses I've recently touched or email I've recently received but often I'm "I know that guy is in my contact list but it doesn't come up."

**Ken Getz:** That's an issue I was thinking about when I was entering a new contact and that new contact works at Microsoft.

**Richard Campbell:** Right.

**Ken Getz:** I have 75 contacts from Microsoft.

**Richard Campbell:** Of course.

**Ken Getz:** Why do I have to look up Microsoft's address and main phone number when I could just have a drop down list of all the companies of all my contacts, choose it and it fills that stuff in?



**Richard Campbell:** Right, of course.

**Ken Getz:** And Outlook form region could add that to your existing contact template.

**Richard Campbell:** Definitely a very programmable mail tool with all the issues that it may have.

**Carl Franklin:** Yes, right.

**Ken Getz:** I've complained so many places in public about this but you set up an all day appointment and then you change your time zone, all of a sudden your appointments goes from 3:00 a.m. to 3:00 a.m.

**Richard Campbell:** Yeah, don't ever do that. Right.

**Ken Getz:** That makes 2 days. Sometimes I change the time zone back and Outlook forgets which day of the two it was supposed to be on.

**Carl Franklin:** Yeah.

**Ken Getz:** So I have lost birthdays to people that day. I'm off by a day. I had no idea how it happened.

**Carl Franklin:** So let's have a call-in show. It's Outlook bitching hour, just call right in, 1-800-BITCH-BITCH-BITCH.

**Ken Getz:** I think you should call it "Why I hate Outlook. Why I love to have Outlook." It's kind of like there's a website about people that love to hate Fry's and hate to love or whatever.

**Carl Franklin:** Whatever.

**Richard Campbell:** Yeah.

**Ken Getz:** You on the East Coast don't know about Fry's electronics.

**Carl Franklin:** Oh, yeah, I've been there. I've been to Las Vegas man, I know.

**Richard Campbell:** I've been to the one at Atlanta, the furthest east Fry's.

**Carl Franklin:** That's right. It's the Wal-Mart of electronic stores, basically, the super Wal-Mart.

**Ken Getz:** But back to our topic here.

**Carl Franklin:** Yes, yes.

**Ken Getz:** So another cool feature they've added in this version, before this version, let's think back a second. So I hand you a floppy, let's say, and it's got code on it.

**Carl Franklin:** What's a floppy?

**Ken Getz:** Remember a floppy? A CD I hand you a CD.

**Carl Franklin:** Oh, okay. All right.

**Ken Getz:** You're pretty old Carl. You're not as old as me and you're not as old as Richard but you're pretty old, you remember floppies.

**Carl Franklin:** It's just been a while, I'm sorry.

**Ken Getz:** USB key full of code and you plug it in.

**Carl Franklin:** Yeah, I get it. I think I understand.

**Ken Getz:** And even under Vista, that code just runs because the normal default policy it allows normal code on any device you plug into to run, that's closing down over time but it does. So you plug anything in and it can format your hard drive.

**Carl Franklin:** You know the only time that I use a floppy now is when I installing like RAID drives, that's it and I think the only reason that it asks for floppies because everybody's too scared to touch the Windows installer code and update it to look for CDs.

**Ken Getz:** I'm pretty sure in Windows Server 2008 they're not going to ask for a floppy.

**Richard Campbell:** You got to hope.

**Carl Franklin:** I mean, come on guys. Come on, floppies? Geez, it's the only time I ever need a floppy.

**Ken Getz:** Well, that's why I have an extra USB floppy, just for that reason.

**Carl Franklin:** Yeah.

**Ken Getz:** So my point was...

**Carl Franklin:** All right, I'm sorry.

**Ken Getz:** My point was that all code runs and so from the very beginning VSTO developers made sure that if I hand you a VSTO application, it won't run and people say, "Geez, how am I supposed to run this thing?" That's the point because if it ran, imagine some evil person hands you an Excel

spreadsheet, you load the Excel spreadsheet and as it loads it formats your hard drive.

**Carl Franklin:** Right, yeah.

**Ken Getz:** So you always had to explicitly grant permission to allow these things to run but they had no concept of how to deploy these things so you had to push a policy out to every machine.

**Carl Franklin:** Right.

**Ken Getz:** It was a nightmare.

**Carl Franklin:** Yeah.

**Ken Getz:** In this version, they support ClickOnce.

**Carl Franklin:** Ah, good.

**Ken Getz:** So it's all manifest-based so it's really easy.

**Carl Franklin:** Well, that makes sense.

**Ken Getz:** It made sense two years ago but they didn't do it.

**Carl Franklin:** In the previous version, they were putting the assemblies out on a shared directory or something but I guess you had to, like you said, email a policy. You know this is one thing Billy Hollis was on the show once and he said, "Don't tell anybody but I just emailed a policy that tells them to save it and run it, that's it."

**Ken Getz:** Good accent. How do you push a policy out if people aren't running as administrator?

**Carl Franklin:** Right, that's right. It's a problem.

**Ken Getz:** You can't install a policy.

**Richard Campbell:** Yeah, we're back to that whole "I have to be an administrator to do anything."

**Ken Getz:** So using ClickOnce makes the whole thing a lot smoother and again another reason why this thing might actually finally catch on.

**Carl Franklin:** Right. Yeah.

**Ken Getz:** But the goal is do you want to write VB code anymore? I really, really don't.

**Richard Campbell:** No.

**Carl Franklin:** I really never did want to.

**Ken Getz:** Well, I know that I did and I'm pretty sure that you did it at some point too.

**Richard Campbell:** Oh, I did.

**Carl Franklin:** I had some experience with VBA but it was more like turn on the recorder, do some stuff and then look at the code, paste it into VB and, you know, modify it and run it.

**Ken Getz:** Well, that's what the intended use was but a lot of people used the macro recorder and just took the code and assumed that was perfect and used it and it never was. It was always bad code.

**Carl Franklin:** A for effort though. I mean it got you started.

**Ken Getz:** They got it working. Ever write your own macro recorder? It's no fun.

**Carl Franklin:** No it isn't.

**Ken Getz:** But VSTO solved all of those problems by allowing you to write managed code rather than VBA.

**Carl Franklin:** The ClickOnce thing is really, really huge because that solves a whole bunch of problems with accessibility. What other things can we talk about in terms of features of VSTO? I mean you can use Excel as a UI base. You can use Word as a UI base. PowerPoint? Is there any point in talking about PowerPoint with Vista?

**Ken Getz:** Sure, imagine this scenario. I've actually needed this before. So every time I wanted to print my PowerPoint slides for a presentation, I want to print them out and I want to print them out so they're black and white 2 up, hand out load and every time I've got to go through the 17 steps to make that happen.

**Carl Franklin:** All right. Sure.

**Ken Getz:** Why not have an add-in, you click a button on a ribbon and it does all of that work for you?

**Carl Franklin:** Yeah.

**Ken Getz:** Or have a custom task pane that allows you to read a folder from your hard drive, getting a list of files and then create a PowerPoint slide, who knows what, but programmatically generate PowerPoint slides.

**Carl Franklin:** Yeah.



**Richard Campbell:** I've often thought about going the other way where, I'm sure I've seen this somewhere, where somebody put an interface into PowerPoint so that wireless remotes could communicate with it. They did a voting system, those sorts of things, interfacing PowerPoint to be more interactive during a presentation.

**Carl Franklin:** Now that's interesting.

**Ken Getz:** Yes I've seen that. It must have been at some conference, Richard, because I remember the exact same thing.

**Richard Campbell:** Yeah.

**Carl Franklin:** Sounds like something Mark Miller would do.

**Richard Campbell:** Oh, absolutely. I also have a memory of Microsoft Barney being involved.

**Ken Getz:** Yes, and this is probably five, six, seven years ago.

**Richard Campbell:** Yeah, which horrifies me actually that I can even think of that but let's face it PowerPoint is just not one where you're going to do a lot of programming with.

**Carl Franklin:** Yeah.

**Ken Getz:** Being able to create your own custom task panes which are just user controls, in WinForms user controls?

**Richard Campbell:** Right.

**Ken Getz:** That's all they are.

**Carl Franklin:** Now InfoPath is really looking nice these days.

**Ken Getz:** Yeah.

**Carl Franklin:** And one of the biggest reasons is that it's now hosted in the browser as opposed to having to run the InfoPath crappy applet kind of thing.

**Ken Getz:** Users don't have to have InfoPath to be installed.

**Carl Franklin:** Right.

**Ken Getz:** What people do is use InfoPath as a front end for SharePoint.

**Carl Franklin:** Exactly.

**Ken Getz:** So being able and since SharePoint can manage code, there you are.

**Carl Franklin:** There you are.

**Ken Getz:** And combining that with being able to create SharePoint work flows with InfoPath's front end using Visual Studio 2008, you got a winner.

**Carl Franklin:** I learned about this by doing a DVD with Sahil Malik on SharePoint. I learned all about that, very cool stuff.

**Richard Campbell:** Yeah and you know, it's funny, the synthesis of InfoPath and SharePoint reminds me of a sort of a webified version of what Access used to be.

**Ken Getz:** If Access has ever moved on to the web for real.

**Richard Campbell:** Yeah.

**Carl Franklin:** Or ever moved beyond two simultaneous users.

**Ken Getz:** Let's just take a moment. Can we have a moment please?

**Richard Campbell:** Let's have a moment.

**Carl Franklin:** Is this is a funeral for Access? Okay, I'm ready.

**Ken Getz:** Access was designed really as a list manager.

**Richard Campbell:** Right.

**Ken Getz:** And it was never meant for 24/7 enterprise applications but since there was no other real development tools, I mean at the time Access came out we were looking at VB 2.0.

**Richard Campbell:** Right.

**Ken Getz:** And there was no data support in VB 2.0.

**Richard Campbell:** No.

**Ken Getz:** So people took Access and made it do things it shouldn't have done and then the Team saw people doing that and they kept adding more and more *enterprise-attempting* features and they were attacking on things they never meant to do.

**Carl Franklin:** But you know what though, there were databases out there that could handle more than 2 simultaneous users.



**Ken Getz:** But there were no development tools for them.

**Carl Franklin:** There weren't but there were databases out there and that's where Access, you know, Paradox, Data Ease, all of that stuff was there and it was working great. You know, it was DOS based, there was no Windows.

**Ken Getz:** Right. Access just happened to get there right at the moment when it was the only Windows-based development oriented database tool.

**Carl Franklin:** Yeah.

**Richard Campbell:** And I think the thing that Access had that made it unseatable was its reporting tool.

**Carl Franklin:** Reports.

**Ken Getz:** They haven't changed it much since until this last version.

**Richard Campbell:** Really?

**Ken Getz:** Finally in 2007, they updated the reporting engine.

**Richard Campbell:** And I always found it fascinating that SharePoint could import Access reports and nothing else ever could.

**Ken Getz:** No there was that -- what was that report tool, Active Reports?

**Carl Franklin:** Active Reports.NET.

**Richard Campbell:** Oh, yeah, right. Active Reports can do it too.

**Ken Getz:** And they actually attempted to generate replacement for the VBA code.

**Carl Franklin:** Yeah, they do a good job.

**Ken Getz:** Yeah, those folks are smart.

**Richard Campbell:** Yeah.

**Ken Getz:** So I don't want to support Access. I mean I love Access and it certainly made me a lot of money.

**Richard Campbell:** Yeah, it kept you fed, didn't it? I seem to recall a ridiculously large set of books on Access.

**Ken Getz:** Yeah, yeah, yeah and they're still selling but as a development platform, it has never, never, never made it. My point is Carl's derision of Access is very common among Visual Basic developers of the time because it couldn't do enterprise applications but my answer is it was never intended for that.

**Carl Franklin:** Well, you know it couldn't do work group applications either. We had problems...

**Ken Getz:** I'm sorry, Carl, you are wrong.

**Richard Campbell:** No, it's not true. We definitely, on a work group level, it functioned.

**Carl Franklin:** We got to be clear about which version, all right? I'm talking about when Windows 95 was just coming out. This is when we were using Access and I can't remember...

**Ken Getz:** Access 95 was the product that shouldn't have been.

**Carl Franklin:** Right. This is the product I'm talking about when we were trying to do just network-based kind of multiple user access over LAN and of course not having any clue that the entire database was coming over the wire and the being rewritten and stomping on each other. So, in the application when it started up, we would do a compact and repair constantly just because it was constantly in whacked.

**Ken Getz:** Because people would shut down Access without closing the database and that would set the bit in the header which said the database is corrupt.

**Carl Franklin:** It got better but, you know, those are the days. That's the pain that I'm talking about, but you know old pain is a bad thing and I'm not bitter. I just moved on to SQL Server and had a good time.

**Ken Getz:** That's right.

**Richard Campbell:** He's all better now.

**Ken Getz:** We've gotten way off topic now, but until recently was there any client side, small database engine you could just install with your application without affecting, without requiring you to be an administrator, without installing SQL Server or any other service? There wasn't until recently, besides Access.

**Carl Franklin:** Oh, you're right, you're right.



**Ken Getz:** Now with SQL anywhere or whatever they're calling it, SQL Mobile, I can't remember what they're calling it right now.

**Carl Franklin:** It's very easy for us to sit here in the future and look back at the past and go, "How dumb was that?"

**Ken Getz:** Well, I thought they did a great job with Access. It just got put into places it shouldn't have been put.

**Carl Franklin:** You're right, you're absolutely right. Lord, I apologize.

**Ken Getz:** Yes, you should apologize. Access wasn't bad. Its users were bad.

**Richard Campbell:** I am fascinated by the possibilities of programming against Visio. Just because of that whole "I got a nice blank grid here and I drop things on and connect them together" like that's a great visualization in so many different ways, the prospect that I could then codify that in some way is fascinating to me.

**Ken Getz:** Well, you know, Visio was the very first outside product to license VBA or one of the first to license VBA from Microsoft. So they've been programmable for probably 10 years now or more.

**Richard Campbell:** Right and it got them bought for their trouble.

**Ken Getz:** Yup and the only problem is, have you investigated their object model?

**Richard Campbell:** No.

**Ken Getz:** It's not for humans.

**Richard Campbell:** Them and Outlook go for beers, right?

**Ken Getz:** Outlook, you can begin to guess at. How do you learn an object model? You go to the object browser?

**Richard Campbell:** Yeah.

**Carl Franklin:** IntelliSense.

**Ken Getz:** Or you use IntelliSense and you hope for the best.

**Carl Franklin:** Right, yeah.

**Ken Getz:** I mean I don't know if you guys, Carl, do you use Visio on a daily basis?

**Carl Franklin:** No, I don't. I didn't even know it still existed. I thought it was one of those apps that just went away.

**Ken Getz:** This is the sound of my head hitting my desk. Ay yay yay!

**Richard Campbell:** Oh, man. I mean I use Visio because we're constantly trying to describe diagrams to each other whether it be floor plans for offices or data centers or the flow diagram of a network or any of these things, it's just a great tool for that.

**Ken Getz:** If you live in Visual Studio, there are people who live their lives in Visio.

**Carl Franklin:** Really? Tell me about it because I'm interested, honestly, seriously.

**Ken Getz:** People that program Visio for a living because it's just so incredibly powerful.

**Carl Franklin:** All right. How?

**Ken Getz:** How what?

**Carl Franklin:** Educate me like, okay, you can draw pictures but what can you do with it?

**Ken Getz:** You can automate those pictures, you can animate those images. They're not pictures, they're diagrams.

**Carl Franklin:** Oh, I understand.

**Richard Campbell:** One of the classic ones I remember from ages ago totally VBA driven was laying out floor plans of cubicles, desks and so forth, and once you've got it all laid out hitting a button and it spits out an inventory of what you need to buy to build that office.

**Ken Getz:** People use that for that still. I went and bought closets, you know that build your own closet stuff and that's exactly what they did. They drive on the Visio, pressed a button and out popped a list of what I had to buy.

**Carl Franklin:** Hey, that's pretty cool.

**Ken Getz:** It was closet stuff, not office stuff but the same concept.

**Richard Campbell:** Right.

**Carl Franklin:** That is pretty cool. I'm getting some ideas, actually.

**Ken Getz:** But the object model and because when you go to Outlook, you know you're

talking about, well you wouldn't know they're called inspectors, but you know you're looking at a designer for an email or a contact and within each inspector, like an email, there a to and a from and a body and those things are obvious. You go to VISIO's object model, who the heck?

**Richard Campbell:** It could be anything.

**Carl Franklin:** Honestly, I always thought of Visio as something that would generate flowcharts for software and that's about it and also BizTalk.

**Ken Getz:** So you used the Visio part that came with Visual Studio which did design flowcharts for software?

**Carl Franklin:** Yeah and that's really all the exposure that I had to Visio.

**Ken Getz:** Well, you can look at some of the templates that they have. It's pretty incredible how many templates there are for designing diagrams in Visio.

**Carl Franklin:** Wow, I've been educated, thank you.

**Ken Getz:** So when I moved up the woods recently, last year, the guy next door is a rocket scientist, a retired rocket scientist.

**Richard Campbell:** That's just going to lead to so many dinner party jokes.

**Carl Franklin:** Yeah, I was just going to say, "Oh, come on, you can do that. It's not like it's rocket science or something."

**Ken Getz:** In his retirement, he's decided to build a locomotive, so he's from scratch building a locomotive.

**Richard Campbell:** Steam?

**Ken Getz:** Steam locomotive, 3/4 size.

**Richard Campbell:** Oh, my Lord.

**Ken Getz:** For the Nevada County Railroad Museum.

**Carl Franklin:** I hope you weren't going to say "for his backyard."

**Ken Getz:** No, I wish, that'd be fun.

**Carl Franklin:** I wouldn't have believed it.

**Ken Getz:** He's got 18 acres. He can have plenty of room. He's building this thing from scratch and he has to do the technical diagrams, the blueprints and stuff. Does he use VISIO? Does he use AutoCAD? No, he is the only human on earth who has mastered Microsoft Paint.

**Richard Campbell:** Paint?

**Carl Franklin:** You've got to be kidding me.

**Ken Getz:** Paint. He's drawing incredibly detailed diagrams using Microsoft Paint.

**Richard Campbell:** Paint?!

**Carl Franklin:** Doesn't he know? He's a rocket scientist for crying out loud.

**Ken Getz:** I said, "I'll give you a copy of Visio, I'll give you Visio." He says, "No, no, I've tried it. I like this." You should see this guy go. It is phenomenal. In Visio, if you want a scaled drawing, you tell it to turn on the scale and you draw things and it tells you exactly how long they are in the real world.

**Richard Campbell:** Right.

**Ken Getz:** He's sitting there with his calculator, calculating each and every line.

**Carl Franklin:** Pixel by pixel.

**Ken Getz:** Pixel by pixel.

**Richard Campbell:** Oh man.

**Ken Getz:** And this is not a vector drawing program, this is a pixel drawing program.

**Carl Franklin:** Yeah, yeah.

**Richard Campbell:** Yeah.

**Ken Getz:** So it's just pretty astonishing. So Visio would make that a lot easier, he won't do it.

**Carl Franklin:** Astonishing isn't the first word that comes to mind.

**Richard Campbell:** Yeah, I'm thinking I don't want to be near that steam engine the first time he cranks it up.

**Carl Franklin:** Yeah.

**Ken Getz:** Believe me, they're testing it as they go and they got the whole base on and they attached the steam to it and it goes.



**Carl Franklin:** He attached it to the space shuttle, you know, rocket science. He's not a rocket scientist but actually he is a rocket scientist.

**Ken Getz:** He is a rocket scientist. Yeah but I asked him about Werner von Braun, he said, "Oh, he was highly overrated."

**Carl Franklin:** Yeah, Hubble, what a cheap shot. I don't know what I'm saying. I don't know what I'm saying. I'm not a rocket scientist.

**Ken Getz:** No.

**Carl Franklin:** So what else about VSTO is new and cool and demos, we were talking about cool demos.

**Ken Getz:** Cool demos.

**Carl Franklin:** Like some of the coolest things that you can do that you wouldn't necessarily think of when you think of Visual Studio Tools for Office.

**Ken Getz:** Well, of course, there are the issues of data binding because it uses WinForms data binding.

**Richard Campbell:** Right.

**Carl Franklin:** Yeah.

**Ken Getz:** So anything you do with WinForms, you can do with Word or Excel or PowerPoint. Those are the three that support a UI. So you want to drag a data source like you would on a WinForm onto a PowerPoint slide and then drop a list box because it uses managed controls too. So you can put in a list box on a PowerPoint slide, I can't imagine what use that would be but you could.

**Carl Franklin:** Wait a minute, when you choose a theme for this slide during a presentation, drop it down.

**Ken Getz:** You could, you actually could and I've seen an example, Eric Carter, who is one of the PM's on VSTO did a really cool example at the Office Developers Conference last year where he created an Outlook form region that was hosting a custom WPF control. So WPF is the design experience for people who actually can draw which cuts out all the rest of us.

**Richard Campbell:** Yes.

**Ken Getz:** I mean WPF is way beyond my skills and everything I create in WPF looks like crap. So my theory is it's far easier in WPF to create an ugly application than it was in Windows Forms but its

far harder in Windows Forms to create a nice looking application than it is in WPF.

**Carl Franklin:** You know it just occurred to me Ken, is you missed your calling. Since everything in WPF that you do looks like crap, maybe you ought to write software for the sewage industry.

**Richard Campbell:** Oh, please.

**Carl Franklin:** But that was just an excuse to get me at the microphone because I have this question which is about the stereotypical, business analyst guy or manager that lives in Excel and wants everything to work in Excel is the center of his universe.

**Ken Getz:** And there are a lot of people who are like that.

**Carl Franklin:** There are. So obviously, Visual Studio Tools for Office is a Godsend for the developer in that guy or woman's life, right?

**Ken Getz:** Except for one problem.

**Carl Franklin:** What's that?

**Ken Getz:** Let's say you have 1000 of those people, 995 have no understanding that Visual Studio exists, much less Visual Studio Tools for Office.

**Carl Franklin:** No, but they walk down to the development shop and say, "Hey, I want to see this pie chart in Excel every morning, do that." Right?

**Ken Getz:** And unless those developers are Visual Studio developers, they're not going to know about these managed tools. So we're hoping we can, someone listening to this who is an Excel developer say, "Oh, look, I can write managed code now." But don't you find that there is still a great fear among people who don't use managed code of taking that step into this world? I see this all the time.

**Carl Franklin:** Do you find that? Yeah.

**Ken Getz:** Yup, still.

**Richard Campbell:** Yeah I guess, you're always working on the bubble of the VBA guys versus the managed code guys, so you're seeing that folks, they're frightened, the prospect of managed code, just sounds like the computer's going to criticize you. Like, "You call this managed code?"

**Carl Franklin:** They're managed enough, thank you very much.



**Ken Getz:** You know the concept of just creating a class is way beyond what most VBA developers ever care about.

**Carl Franklin:** To tell you the truth, when Robert Green first told me about Visual Studio Tools for Office way back in the day.

**Richard Campbell:** That's show #43, if you're counting.

**Carl Franklin:** Yeah, okay.

**Ken Getz:** Because he was the project manager back then.

**Carl Franklin:** That was my first inclination that, "Okay, VBA people are going to now, all of a sudden, be writing managed code and have to know the framework, I don't think so," but he was pretty sure that that was going to happen.

**Ken Getz:** It hasn't happened yet but at least in this version, if you have Visual Studio, you got the Office stuff.

**Carl Franklin:** Well, that's good.

**Ken Getz:** Robert Green said to me, you know Robert is now a business partner but he was originally a PM on the Visual Studio Tools for Office Team and then moved to VB a couple of years.

**Carl Franklin:** Yup.

**Ken Getz:** I remember at a VS LIVE Conference a few years back, I guess it was about 2001 and this VB.NET was new to all of us and we're talking and I said, "You know, this stuff is kind of tricky, it's all so new." And he said, "Yeah, you know, this really raises the bar for VB developers."

**Carl Franklin:** What does that mean?

**Ken Getz:** Because before that, anybody could pickup VBA or VB 6.0 and just get going, you know, you wouldn't be good but you can do something off the bat.

**Carl Franklin:** It raises the bar of being able to get to where you -- what am I trying to say? The learning curve?

**Ken Getz:** The learning curve, it is fast, it's steeper than it was.

**Richard Campbell:** Yeah, you have to know more to get started.

**Carl Franklin:** Well, that's true and certainly, I think it's even more difficult for people who aren't VB programmers or VBA programmers or for people who are because they have to unlearn all the stuff that they've already learned.

**Ken Getz:** Yeah.

**Carl Franklin:** You said that "yeah" with so much pain in it.

**Richard Campbell:** A painful "yeah."

**Ken Getz:** I have a good friend who, we support each other. He does my IT stuff because I'm just abysmal at IT stuff. We all can't be Richard.

**Carl Franklin:** I know the feeling.

**Ken Getz:** And I take help from him for his programming stuff, but he just a sort of intermediate programmer and over the weekend he says, "I'm trying to put stuff into a list box in C# and then set the value by setting the selected value property of the list box and it keeps telling me that the selected item is null." Well, I hadn't thought about this for a year. It's not something that I think about every day and it took me five minutes to find it again that he never would have found it.

**Carl Franklin:** Right.

**Ken Getz:** And the fact is the selected value is null unless you bound the list box to something. If you stick things in yourself, you're never going to set the value.

**Carl Franklin:** Right.

**Richard Campbell:** Right.

**Carl Franklin:** Set selected index.

**Ken Getz:** And that's not the way VB 6.0 works.

**Carl Franklin:** Right.

**Richard Campbell:** You couldn't get there, into that little corner in VB 6.0.

**Ken Getz:** Right and as an old developer trying to learn .NET, that's not what you would think of to solve this problem.

**Carl Franklin:** Right.

**Richard Campbell:** Yeah, you should've created a list and then bound it to the control.

**Ken Getz:** Right.

**Carl Franklin:** Hey I just want to give a shout out real quick to our friends at Data Dynamics, who makes ActiveReports.NET among other really awesome things. ActiveReports.NET is great, because it allows you to just build your reports with an easy editor, embed them right in your application, provide PDF and HTML output, give your end-users a report editor royalty free of course. A great Access report upsizing wizard, and all of this for a price that isn't going to break the bank. ActiveReports.NET from Data Dynamics, go check it out now at [datadynamics.com](http://datadynamics.com).

Fortunately, the Help in .NET, in general, in VB.NET in particular is much better than the help in VB, don't you think?

**Ken Getz:** Oh, a gazillion times better but imagine being frustrated and not knowing where to look. You look at the help and your eyes glaze over, I mean I understand the feeling.

**Carl Franklin:** That's true and that was the case for me too in the very beginning.

**Ken Getz:** Not you, Carl.

**Carl Franklin:** No, no true, yeah. True. I think we all had that experience though. The first time you cracked the Help and it's just everything all at once. You just sort of have to take your time and sort it out.

**Ken Getz:** And the funny thing is do you remember how you learned this .NET stuff? I don't remember but it's a huge body of knowledge.

**Carl Franklin:** I remember how I learned it. I signed up to do the .NET Roadshow with Deep Training.

**Ken Getz:** Oh, me too, me too.

**Carl Franklin:** Yeah, so we basically took crash courses in it and just drank from the fire hose and I just looked at a lot of examples and started writing code like crazy and it just sort of sunk in.

**Ken Getz:** The only hope for those of you moving from VBA or anyone that's listening, the only hope is to write code.

**Richard Campbell:** Yeah.

**Carl Franklin:** Absolutely, that's how you learn.

**Richard Campbell:** You really don't have a choice. If you don't build it you're never going to get there.

**Ken Getz:** I know people that try to read examples and read articles and the moment you read them, you say, "Oh that made sense," and you forget it a second later.

**Carl Franklin:** Yeah, yeah.

**Ken Getz:** It's hopeless.

**Carl Franklin:** I also think having a project that's just slightly outside of your scope of ability, what you think is your scope of ability, is a good thing because you have a focus. You have something to work towards that is going to take you a while to get there.

**Ken Getz:** Yes.

**Carl Franklin:** I honestly think that's probably one of the keys to my understanding of the programming languages that I've learned.

**Ken Getz:** Yup. I have a question for you Carl, actually. Back in the day, I remember you had played with sockets a lot.

**Carl Franklin:** Yeah.

**Ken Getz:** And new in 2008 in the Framework 3.5 is support for named pipes.

**Carl Franklin:** Yeah.

**Ken Getz:** That's something I played with back in '91, back in C++, I was writing OS2 applications.

**Carl Franklin:** Yeah.

**Ken Getz:** Back when I was smarter and have you got any comparison between using named pipes and using sockets to communicate between two applications because it's brand new in this version?

**Carl Franklin:** No, I haven't but if I was going to think about it, I would say that named pipes is just going to be faster. I think it's going to be faster but less reliable.

**Ken Getz:** I would guess that it's not going to get faster, I think it's easier.

**Carl Franklin:** I'm not necessarily sure about that. I mean sockets is your basic stream interface. There's nothing really all that difficult about it. I think it's a fear factor.



**Ken Getz:** Well, we're going to have to investigate this.

**Richard Campbell:** The thing with named pipes is that they're actually older than sockets. Named pipes is a Unix technology that predates TCP.

**Carl Franklin:** Yeah.

**Ken Getz:** Yes, like I said I used it in '91 in OS2. So it's been around a while.

**Richard Campbell:** Yeah.

**Carl Franklin:** Yeah and then we had MailSlots, do you remember MailSlots?

**Ken Getz:** Oh, yeah.

**Richard Campbell:** Back when we thought we were going to need a different protocol for every product.

**Carl Franklin:** Oh, wait a minute, here's one NetDDE.

**Richard Campbell:** Oh stop. Now, I did good work with DDE. My last big office app which is Office 4.0 and VB 3.0. I used DDE to automate Mail List generations.

**Carl Franklin:** Welcome to the Old Farts Hour.

**Richard Campbell:** Oh man, that's old.

**Ken Getz:** Oh, man, back when I started...

**Richard Campbell:** The only thing that I really learned from all of that was how to work with device context in the Win32 API.

**Carl Franklin:** Yeah, GetDC, ReleaseDC...

**Ken Getz:** Win32, I don't think so.

**Richard Campbell:** Oh, sorry, Win16.

**Carl Franklin:** Yeah.

**Richard Campbell:** That's when I first started admiring Dan Appleman too. I mean that's how far back that guy goes.

**Carl Franklin:** Dude I was running bitmap code in VB 3.0 to render bitmaps because the picture control in VB was 16 colors and I wanted to do 24, you know, whatever million colors or 256 color bitmaps. How about realize palette? You remember

realize palette? You've realized your palette. I love that one because first, you have to create a palette and then you have to set in into the device context but then it doesn't work until you realize it.

**Ken Getz:** Ah yes, I remember setting the palette into the device context thing, oh yes.

**Carl Franklin:** Yes. God.

**Richard Campbell:** Oh, this is not useful knowledge.

**Ken Getz:** Well, the goal of .NET for me has been never write another API call ever again, ever.

**Richard Campbell:** Ever again.

**Carl Franklin:** I found an undiscovered API call in the documentation called GetWashingtonDC. You pass in a million dollars and it returns a point to a seat in Congress.

**Richard Campbell:** Nice.

**Ken Getz:** I'm not even going to. The problem is VSTO adds a whole bunch of new APIs and they aren't managed interfaces to them.

**Carl Franklin:** How about BitBlit, right Bit B-L-T? How about SplitBLT which returns the uneaten portion of a bacon lettuce tomato sandwich?

**Ken Getz:** This is why we keep Carl around, I guess.

**Carl Franklin:** The show is shot to hell anyway. We might as well just go down in flames.

**Ken Getz:** Oh, yeah.

**Richard Campbell:** I would be interested if we were going to talk a little technology here about the impact VSTO is having on all of these things because now the underlying security model has radically changed.

**Carl Franklin:** Oh, sure.

**Ken Getz:** Ayayay.

**Carl Franklin:** Or not.

**Ken Getz:** Ayayay.

**Carl Franklin:** Do we want to go there?

**Ken Getz:** User Access Control, our friend or our not friend?



**Carl Franklin:** I haven't used User Access Control since I installed Vista. In fact, I haven't used Vista since I've installed Vista.

**Ken Getz:** Well, you know, out there on the speaking circuit, I feel like you've got to use Vista to sort of to promote the newest thing. So when you go speak Carl, you're using Windows XP at this point?

**Carl Franklin:** Yeah, sure.

**Ken Getz:** Oh, no.

**Carl Franklin:** Because it works, really.

**Ken Getz:** Vista works, 95% of the time.

**Carl Franklin:** No, it doesn't. It doesn't work for me. On all of the machines I put it on, I have problems and most of them have to do with audio drivers and I need audio because I have to work on shows when I go talk.

**Ken Getz:** Yeah.

**Carl Franklin:** And I have to have audio so it just doesn't work for me.

**Ken Getz:** There are many good things about Vista and I'm sure once SP2 comes out next year, it'll be great.

**Carl Franklin:** We hope.

**Richard Campbell:** Wouldn't that be SP1?

**Ken Getz:** SP1 isn't going to cut it.

**Richard Campbell:** Oh man.

**Ken Getz:** You've got to get to SP2, just like on XP. XP, do you remember XP? It was dog poo until SP2.

**Richard Campbell:** Oh yeah, I remember it. I kept reminding people when they were killing Vista, it's like, "You guys remember what XP was like in the beginning?" It was awful. They were trying to get USB to work in the original XP.

**Carl Franklin:** You're right, Richard. It was horrible.

**Richard Campbell:** It was terrible.

**Ken Getz:** So next year when SP2 comes out, Vista will be great because it's a nice operating system.

**Carl Franklin:** I love it. Visually and user-wise, I love the operating system, I just need audio.

**Ken Getz:** Okay, but as long as we're on Vista, let me just mention to make this clear that neither Visual Studio 2008 nor Office 2007 requires Vista.

**Richard Campbell:** Right.

**Carl Franklin:** Well, that's good.

**Ken Getz:** People think that because they released off in 2007 the same time as Vista that you needed to have one to use the other, just not true.

**Carl Franklin:** Right and you know the bigger issue is .NET 3.0. .NET 3.0 was linked to Vista very early on by Microsoft and we all went, "Oh that's a mistake," but the reality is you don't need Vista for all three of them.

**Richard Campbell:** Yeah, all three of them live independently of each other. Not that you can run .NET 3.0 on Windows 98.

**Ken Getz:** Windows 98 is no longer supported by Microsoft.

**Carl Franklin:** That's right. You can't even download it from MSDN anymore. Do you know that?

**Richard Campbell:** Yes, it's gone.

**Ken Getz:** I saved my CD just in case.

**Carl Franklin:** You want to send me a copy?

**Ken Getz:** I don't think that's legal, but we'll work something out.

**Carl Franklin:** They should just have a download place or public domain. Go ahead use it, whatever.

**Richard Campbell:** I dare you.

**Carl Franklin:** Actually, the only reason I wanted it was -- oh, God, this is going to date me. I used to work at Voyetra which is now Turtle Beach and they made sequencing software, MIDI sequencing software for musicians for DOS computers. Now, DOS plus musician equals nightmare. So, I was in tech support, but be that as it may, I had a library for patches on my Korg M1 keyboard and the keyboard BIOS battery went belly up and I lost everything but I have it on a disk in this particular format on a floppy disk and I just needed the program in order to get it going but this was DOS software, there was no such thing as a universal



driver so we had to write drivers for every kind of hardware that was out there. So I ran this through in virtual PC which emulates the Sound Blaster, thinking that I could take a MIDI cable out of that in a virtual PC and go into my synthesizer and download the patches but alas, Virtual PC and VMWare both do not support MIDI output devices. They will play the FM synthesizer but they will not recognize MIDI output port.

**Ken Getz:** You can also try parallel. They do some pretty amazing things.

**Carl Franklin:** Well, the other thing that I was thinking was just get a box, put Windows 98 on it get an old Sound Blaster and go to town but alas I couldn't find Windows 98 anywhere and I had purchased it too.

**Ken Getz:** Oh, yeah.

**Carl Franklin:** I promised Microsoft that I will not use Windows 98 much.

**Richard Campbell:** Much.

**Carl Franklin:** I don't like it anymore, of course.

**Richard Campbell:** Well, it's amazing how what you've gotten used to now when you go back and poke around with those old machines and the way things used to work, try and find things.

**Carl Franklin:** That's true. You just take so much for granted. Printing is an amazing feat that you can just plug in a printer and it goes, "Oh, hi," and then you just print. It's just an amazing feature, just ask any Linux user.

**Richard Campbell:** Right. Well, ask any Vista user.

**Ken Getz:** It works.

**Richard Campbell:** Well, the printer drivers for Vista are terrible.

**Carl Franklin:** The drivers in general.

**Richard Campbell:** And I blame Hewlett-Packard.

**Carl Franklin:** And Nvidia too, those bastards. Hey, did I say that?

**Ken Getz:** So, we've gotten off subject but any good gadgets? I mean we love talking about gadgets. Any gadgets new?

**Carl Franklin:** Yeah, the vertical mouse.

**Richard Campbell:** Oh, yes, saving your wrists.

**Ken Getz:** You're liking the vertical mouse thing, huh?

**Carl Franklin:** I love the vertical mouse. I no longer have Tarpal Cunnel Syndrome or whatever the heck that's called.

**Ken Getz:** Not bad.

**Richard Campbell:** Carpal Tunnel?

**Ken Getz:** That one, yes.

**Richard Campbell:** Yeah.

**Carl Franklin:** Yeah, that's what I said, Tarpal Cunnel.

**Richard Campbell:** Okay. My latest, 10 1-terabyte hard drives.

**Carl Franklin:** Oh, did they come in, Richard?

**Richard Campbell:** Yeah, they came in.

**Ken Getz:** You bought 10 of them in a RAID or something or...?

**Richard Campbell:** I'm going to put them into two RAID arrays because you know you just can't have too much disk space.

**Ken Getz:** Well, I have fallen in love with the ReadyNAS device from Infrant Technologies.

**Richard Campbell:** Oh, yes.

**Ken Getz:** Which is a really cool toaster size, four hard drive RAID for backup. It was great. It was my network storage and my backup. It has a USB port, you plug a USB drive and it pushes a button and it backs up whatever you want to your USB drive. Unfortunately, I stored it in my garage for the last year and last week it just started sputtering, just sputtering down.

**Carl Franklin:** Oh, man.

**Ken Getz:** I took the drives out and along with the drives came at least a tablespoon of dust.

**Richard Campbell:** Oh.

**Ken Getz:** I'm thinking the garage was not a good place for this ReadyNAS drive. Unfortunately, they were purchased by NetGear a month or so ago.

**Richard Campbell:** Right, right.

**Ken Getz:** And trying to get support from NetGear - you might as well just cut your arm off and like throw it in the trash. I mean it's as useful as that.

**Richard Campbell:** There are a lot of products that sort of go that way. Usually, it ends up Computer Associates buying it. I've come to the conclusion that Computer Associates is really the place that software goes to die.

**Ken Getz:** Yeah. For a while it was Borland because they bought a bunch of products and they killed them too.

**Carl Franklin:** Oh, man, they're going to play this at my trial.

**Ken Getz:** The other one was Slingbox. I loved the Slingbox, bought by EcoStar. Oh, my goodness.

**Richard Campbell:** That's the end of that.

**Carl Franklin:** Really? Really?

**Ken Getz:** They'll probably put software that makes it not work with DirectTV and then where will we be?

**Carl Franklin:** The thing about Slingbox is that it doesn't record, does it? It's not like a full DVR. It's just a broadcaster?

**Ken Getz:** It's not meant to be. It's just a broadcaster.

**Carl Franklin:** Yeah, but now they actually have an HDMI full HDTV recording boxes and cards for Windows now.

**Ken Getz:** Yes, they do.

**Carl Franklin:** Yeah.

**Ken Getz:** But this is a totally different purpose. Slingbox is a totally different reason for this.

**Carl Franklin:** I know that but some of these boxes that do the DVR stuff will also allow you to access your TV from the internet as Slingbox does.

**Ken Getz:** Oh, I'm sure they do, sure. Slingbox is easy for consumers to setup and it doesn't require any USB.

**Carl Franklin:** Yeah, it's got the -- what is it, the first thing that came out there? Richard, help me out here.

**Richard Campbell:** TiVo?

**Carl Franklin:** Yeah, it's got the TiVo factor going for it.

**Ken Getz:** It does and it works great. I don't have a TV in my office and I want to watch TV sometimes, just stream it over my network and watch it from the TiVo in my office.

**Carl Franklin:** Now I really feel like an old man sitting around at a general store complaining, but is it me or is there really not a lot of good stuff on TV these days?

**Richard Campbell:** Not a whole lot.

**Ken Getz:** I think there's a lot of great stuff. You guys are just missing the great shows.

**Carl Franklin:** Like what?

**Ken Getz:** Does anyone want to listen to this? No one's going to listen to this.

**Carl Franklin:** Sure.

**Ken Getz:** Okay, for intelligent folks, on AMC, Mad Men was a great series about Madison Avenue advertising people in the '60s.

**Carl Franklin:** Oh, okay.

**Ken Getz:** There was a show at FX called Damages which was a totally guilty pleasure but we loved it about an evil lawyer. The Wire on HBO is a great show.

**Richard Campbell:** Yup, all of these Cable Plus channels, they are the ones making the TV worth watching.

**Ken Getz:** Yeah, sitcoms on the network channels, you can't watch.

**Richard Campbell:** No.

**Carl Franklin:** No, and reality TV. It sort of seems like it's dying down a little bit.

**Richard Campbell:** We have to hope.

**Ken Getz:** It's not. If you look at the TV schedule, I'm guessing 80% is reality shows.

**Carl Franklin:** You know what reality shows are, right? They are a way that companies can get actors without actually paying for them.



**Ken Getz:** And without having to pay writers.

**Carl Franklin:** Without having to pay writers. They don't have to pay actors. They're just, "Here, sign this waiver and you say this and you do this. Here's the situation, go!"

**Ken Getz:** Well, all I can say is I'm addicted to television. I enjoy long serial dramas and we watch a lot of TV and we have never watched, never once, not even for a minute, watched a reality show. There's a lot of stuff on if you just have a TiVo or something.

**Richard Campbell:** Now I find it interesting that you are just using the Slingbox to distribute TV within your home. You're not trying to watch TV while you're on the road.

**Ken Getz:** No, I've gotten to the point now where I just -- is this legal? I rip DVDs to my hard drive and just carry a bunch on the hard drive.

**Richard Campbell:** Well, it ought to be legal.

**Carl Franklin:** It ought to be legal. You paid for it.

**Ken Getz:** It's not legal, but I do it anyway.

**Carl Franklin:** You paid for it, come on.

**Ken Getz:** It's for my own personal use. I never distribute them, so...

**Richard Campbell:** Yeah.

**Ken Getz:** Okay, I'm going to tell you my guiltiest pleasure. I mentioned this in an article for CoDe Magazine recently. My guiltiest pleasure is I have been working my way through -- God, I'm going to admit this in front of many people -- the Gilmore Girls.

**Richard Campbell:** Oh, no!

**Ken Getz:** It was a great show.

**Carl Franklin:** I don't even know you.

**Ken Getz:** It is not a kitsch show. It is excellent writing, excellent editing and in fact they're being very pretty doesn't hurt.

**Carl Franklin:** Oh, I'm sorry man. You just totally blew my whole image of Ken Getz, the smart guy.

**Ken Getz:** I know. It's so totally out of character.

**Carl Franklin:** The hip kind of new technology developer guy. Oh man, The Gilmore Girls.

**Ken Getz:** This is going to come back, but you see, I bet you've never watched it.

**Richard Campbell:** Bet you never have.

**Carl Franklin:** Didn't need to.

**Richard Campbell:** There you go.

**Ken Getz:** See, but if you had, you might like it. You just never know.

**Richard Campbell:** All right guys, look. Let's have one last line on VSTO. The current version which is free and is out there right now, shipped November of 2006, the next one up is for 2008.

**Ken Getz:** An excellent product.

**Richard Campbell:** Do we know when it's going to come out? I guess it's in Studio 8, right?

**Ken Getz:** There is not going to be another separate SKU for Visual Studio Tools for Office. It's in Visual Studio 2008.

**Richard Campbell:** So that's it?

**Ken Getz:** So it's free as it needs to be because you had to have Visual Studio anyway to use it.

**Richard Campbell:** Right.

**Ken Getz:** So now it comes with Visual Studio. We've done some amazing things for 2008 and it's an excellent product and if you're currently writing code for Office applications. Wait, I've never even mentioned that in 2008 it still allows you to create add-ins and document level customizations for Office 2003 applications as well.

**Richard Campbell:** Wow.

**Carl Franklin:** Wow.

**Ken Getz:** You don't have to have Office 2007 to make use of it. It's not really confusing.

**Carl Franklin:** Of course, having everything in one box means that you can use Office applications with Workflow, with Communications Foundations, with WPF, with Silverlight, with all of that stuff, right?



**Ken Getz:** Right and since you can host managed controls on Word, Excel or PowerPoint, what's to keep you from putting a WPF control?

**Carl Franklin:** Yeah.

**Ken Getz:** Or a Silverlight application on those applications.

**Carl Franklin:** Sure, sure.

**Ken Getz:** We've finally hit the world of Office making it as a development platform.

**Carl Franklin:** You can rewrite Excel as a WPF application if you really want to. Hey, there's a project for you.

**Ken Getz:** A few years ago, we were at a conference, an Office Conference and one of the VPs for Office, maybe Doug, the lead VP was there sort of chatting with the speakers and a cantankerous co-author of mine whose name would be unmentioned, was talking to him and the VP says, "So, if you could have anything at all happen with Office, what change would you want?" My co-author, who happens to live in Seattle, who'll go unnamed...

**Richard Campbell:** Paul Litwin.

**Ken Getz:** Says, "You need to rewrite Excel as a managed application."

**Carl Franklin:** Rewrite Excel?

**Ken Getz:** And the VP looks at my ex-co-author...

**Carl Franklin:** Who happens to have no hair.

**Ken Getz:** No comment and says, "Do you know how many millions of lines of code are in Excel and a large portion that no one has looked at since 1987?" He didn't say that. That was my interpolation but he did say, "Do you know how many millions of lines of code there are? This is person decades to rewrite."

**Carl Franklin:** Yeah.

**Ken Getz:** So Excel is not going to come out as a WTF application, believe me.

**Richard Campbell:** Never going to happen.

**Ken Getz:** Not with this functionality anyway, but it doesn't need to.

**Carl Franklin:** No, yeah, you're right. It works.

**Ken Getz:** Since COM interop with managed code works so well, they got that pretty well down pat at this point.

**Carl Franklin:** Yeah, I agree.

**Richard Campbell:** Yeah, that's why COM interops are never going away because of Office.

**Ken Getz:** Or because of Windows itself unless they rewrite Windows from scratch.

**Richard Campbell:** Yeah.

**Carl Franklin:** Isn't that what Vista was supposed to do?

**Ken Getz:** No.

**Carl Franklin:** Okay, enough of that.

**Ken Getz:** Are you done with me?

**Carl Franklin:** Yeah, I think so. Are you done with us?

**Ken Getz:** No, I have more questions for each of you since I haven't talked to you in a long time but...

**Carl Franklin:** All right, welcome to Ken Getz Rocks! His guests today are Carl Franklin and Richard Campbell. Take it away, Ken.

**Ken Getz:** I'm done. I got to go play the piano.

**Carl Franklin:** Are you sure? Sure? One more question, come on. I'll answer anything you want.

**Ken Getz:** I can't remember what I was going to ask you. Oh, I know what it was but this is really off topic.

**Carl Franklin:** We're done! We're done. Listen, you can stop listening right now.

**Ken Getz:** You've been playing with electronic instruments for a long time. I bought an electric piano for this show as a matter of fact and it has a MIDI interface and so from the computer, I can control the various sounds of the piano and use those sounds but there's no interface for like actually pushing settings onto the piano. For example, I have 113 different patches that I have to use in this show that I'm playing tonight and it only stores 28 memory at a time.

**Carl Franklin:** No, that's not true.

**Ken Getz:** It is true. They have 28 registrations, save patches, I mean I have 300 built in but I need them in the order I need them in combinations I need them in and they only store 28 registrations at a time and so to switch registrations from one group of 28 to the next is 7 keystrokes and when songs go bing, bam, boom, I don't have time to do that between them, I get flustered. It's so cool if there was a programmatic way to have a computer sit there and push the next registration.

**Carl Franklin:** As a matter of fact there is.

**Ken Getz:** And what is that?

**Carl Franklin:** If you download, Carl's MIDI tools from [franklins.net](http://franklins.net) .NET Tools and Utilities or Extras I think it is now, I wrote a managed code wrapper for MIDI devices where you can do program changes and transpose and do all sorts of great stuff and if that doesn't do enough to send program changes, there's a part of the MIDI spec called System Exclusive Data and unfortunately I don't have code for this but you can use any sort of MIDI program to download the entire guts of that synthesizer, all the metadata, including all the patches and store it as a file and then you can load that file back up and do a SysEx transfer back to it and that will restore any of the patches that you have, System Exclusive.

**Ken Getz:** That's exactly what I need, unfortunately it's too late for this show but next time I would need that and I'll go look at your tools. It sounds like the application I was trying to use just didn't have your code in it already.

**Carl Franklin:** Well, my code just does program changes. It doesn't do System Exclusive transfers.

**Ken Getz:** The program changes would be exactly what I would need.

**Carl Franklin:** Program changes are exactly what you need, yeah, patch changes.

**Ken Getz:** It's too late now for this show but next time we'll see.

**Carl Franklin:** And speaking of MIDI and speaking of pianos, yesterday, they wheeled in a 6-foot Yamaha baby grand G3 with a full MIDI implementation in it, meaning a player, a recorder and you can use it as a MIDI external MIDI controller or it has a MIDI input too so I could record a performance with audio but I could also record it on a sequencer and then in the sequencer take out the bad notes, line

up the notes that are out of time and play it back through the piano and the keys actually move and record it.

**Ken Getz:** Wow.

**Carl Franklin:** Yeah.

**Ken Getz:** I have to actually play the notes myself.

**Carl Franklin:** Yeah. Well, you play them once, but if you mess up, it's easier to edit MIDI data than it is to edit audio.

**Ken Getz:** Yeah.

**Carl Franklin:** When you've got a piano.

**Ken Getz:** This is cool. If we're chatting more, I'm sure offline we can do that.

**Carl Franklin:** Yeah.

**Ken Getz:** I thank you for the opportunity to blab on about Vista which is a product that I really have spent a lot of time with and like a lot. Hopefully, someone will pick it up.

**Carl Franklin:** It does sound very good, especially in its next version, can't wait to start messing with it.

**Ken Getz:** I hope you do.

**Carl Franklin:** All right, Ken Getz, thank you very much.

**Ken Getz:** Thank you.

**Carl Franklin:** It was a fun show and I hope the listeners enjoyed it and we'll see you next time on .NET Rocks!

[Music]

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