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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!**



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**December 30, 2011**  
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**Lawrence Ryan:** .NET Rocks! episode #728, with guest Corey Haines, recorded live Friday, December 16, 2011.

[Music]

**Lawrence Ryan:** This episode is brought to you by Telerik and by Franklins.Net - Training Developers to Work Smarter and now offering video training on Silverlight 4.0 with Billy Hollis and SharePoint 2010 with Sahil Malik, order online now at [franklins.net](http://franklins.net). And now here are Carl and Richard.

**Carl Franklin:** Thank you very much and welcome back to .NET Rocks! It's Carl Franklin and Richard Campbell here. What's up, man?

**Richard Campbell:** You know what? I got nothing to complain about and nobody is listening anyway. Oh, wait, wait. We're on .NET Rocks! Lots of people are listening. What am I thinking?

**Carl Franklin:** That's your other show. Oh!

**Richard Campbell:** Oh, geez. Ooh. Oh, not a nice man. Thanks for that. You know, I know where you sleep.

**Carl Franklin:** Yeah. I'm sorry. That's not actually true at all. RunAs Radio is a very popular IT show.

**Richard Campbell:** Yeah.

**Carl Franklin:** And you're just doing great stuff over there.

**Richard Campbell:** Thanks. We've been having a good time doing it. Well, I've been doing a lot of them solo. Greg has been buried in projects, but that's fine.

**Carl Franklin:** Yeah, that's fine.

**Richard Campbell:** I've been doing a lot of onsite stuff going to events and just talking to people because there are so many moving parts right now in the world of IT too. For developers, you don't know but we're going nuts too. There was a new version of Windows Server that came out at BUILD as well, just nobody knows about it.

**Carl Franklin:** Yeah, I know. It's great stuff and I always learn a lot listening to you talk about anything.

**Richard Campbell:** What were you upset about the other day? Oh, and somebody said, misquoted the name of an aircraft. I went, "No, no, it's this."

**Carl Franklin:** Yeah and they were in the Air Force.

**Richard Campbell:** Yeah and they went, "Oh yeah, you're right." I know I'm right.

**Carl Franklin:** Well, anyway, it's time to announce the winner of the Telerik Ultimate Collection for this show.

**Richard Campbell:** Woohoo!

**Carl Franklin:** And if you don't know what we're talking about, we recently started a .NET Rocks! fan club the sole purpose of which is to give away stuff...

**Richard Campbell:** Yes.

**Carl Franklin:** Every show. Telerik was the first to jump on board and said, "We're gonna give away an ultimate collection." That's a \$2000 package every show. So what we want you to do is go to [dotnetrocks.com/fanpage.aspx](http://dotnetrocks.com/fanpage.aspx) and fill out a little form and then you're a fan and we pick from that list every show.

**Richard Campbell:** Every show and it's on the homepage. If you go to .NET Rocks!, just click on that fan page link and you're good.

**Carl Franklin:** And every December, starting next December we're going to give away a big prize and I'm talking at least five grand worth of stuff.

**Richard Campbell:** You just got an idea, didn't you?

**Carl Franklin:** I did get an idea. I'll talk about that in Better Know a Framework which is coming right up after I announce the winner...

**Richard Campbell:** Oh.

**Carl Franklin:** Who is Paul [Manser] from Victoria, Australia.

**Richard Campbell:** Nice.

**Carl Franklin:** Paul, congratulations. You are swimming in Telerik goodness right now.

**Richard Campbell:** Here comes the Telerik love.

**Carl Franklin:** Yeah. All right, Better Know a Framework.

[Music]

**Richard Campbell:** All right, what have you got?

**Carl Franklin:** All right, so you know, I just love spelunking around and every once in a while I come across something I knew was there but I just hadn't really looked at it. So the Microsoft Surface 2.0 SDK caught my eye today. There's a new version of Surface called Surface 2.0 and there's actually some great hardware around Surface 2.0. Well, first of all the SDK is at [tinyurl.com/surfacesdk](http://tinyurl.com/surfacesdk), but there's a YouTube video at [tinyurl.com/surface2video](http://tinyurl.com/surface2video), that's number 2, surface2video, from Microsoft. It just kind of shows off the new Samsung SUR40 which will be shipping this year and retail cost around eight grand. They're taking pre-orders right now but the Surface SDK works on any .NET machine. You don't have to build it on a Surface. Here's what it says right in the docs. The Microsoft Surface 2.0 SDK provides the managed APIs and the tools you need to develop Surface apps. Applications that are built using the Surface SDK can run on devices made for Surface 2.0 and on Windows 7.0 computers. Developing applications for Surface is essentially the same as developing for WPF or XNA except that the SDK provides extended support for the special features in the Surface environment like 50 simultaneous touch points.

**Richard Campbell:** Yeah.

**Carl Franklin:** Finger and blob recognition, finger recognition.

**Richard Campbell:** Yes. It not only can track 50 fingers at once, it knows whose fingers they were like what hand it was on and which finger it was and at which it was pointed.

**Carl Franklin:** Oh, my God. Tagged objects, detection of the orientation of touches, tilted display, rotated display, specialized controls and so on. Surface apps that are installed and registered on a device made for Surface are automatically integrated with the Surface shell and can make use of those special features. There's a link to another video which I think is the same video, but I'm not sure. Basically here's the deal. Surface 2.0 is no longer a product. Surface isn't a product. It's a technology and that's why they say devices made for Surface. So Surface is a technology. The hardware is now, it's whatever. Anyone, any hardware manufacturer can make a device for Surface.

**Richard Campbell:** I mean that being said, there's exactly one, the Samsung.

**Carl Franklin:** There is now but you know when that price gets down, it's already half the price of Surface 1.0.

**Richard Campbell:** Yup.

**Carl Franklin:** It's more than half the price.

**Richard Campbell:** Well, and much smaller too. It's just a few inches thick. It's no longer a table. It's a countertop.

**Carl Franklin:** Well, yeah. It looks like a table but it looks like a table like your kitchen table.

**Richard Campbell:** Yeah, it's just got legs on it. You can take the legs off if you want.

**Carl Franklin:** Right. Yeah. So just very cool and it just made me want to download that API and start messing around with it on my Windows 7.0 machine.

**Richard Campbell:** What would you build?

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

**Richard Campbell:** I hate to say it, but I want to play board games on it.

**Carl Franklin:** That an obvious, obvious one.

**Richard Campbell:** It's a terribly expensive one, but actually the coolest thing would be to make it a coffee table and I want it to have a relationship with my television.

**Carl Franklin:** Oh, yeah.

**Richard Campbell:** I want to look at the guy down on the table and then pick a show and flick it onto the TV.

**Carl Franklin:** Yeah, maybe this is the new device that we're talking about here with Windows 8.0 and tablet and touch and all that. It really doesn't make sense to have a vertical on your desktop. It's got to be at least set at a 20-degree, 30-degree angle, maybe even on the table itself. It's going to be interesting but that was my idea for the first giveaway, the technology give away for the .NET Rocks! fan club next year. Maybe we could raise a little extra money.

**Richard Campbell:** Yeah, maybe we'll get a couple of sponsors to chip in and give away a Surface as a prize.

**Carl Franklin:** That would be so cool.

**Richard Campbell:** If you like that idea, you should send us a message and let us know you want a Surface. Join the fan club.



**Carl Franklin:** Yeah and speaking of messages, who's talking to us, Richard?

**Richard Campbell:** Grabbed an email out of the stack from Andrew Wilson who says, "Hi guys. I really enjoyed listening to show 720 from Oredev," and that was the show I called Cool Projects at Oredev with Tess Ferrandez and Luca and Henrik Andersson.

**Carl Franklin:** Yup.

**Richard Campbell:** "First of all, it was really great to hear from Tess again. Always interesting and great to hear what Carl is doing with Kinect."

**Carl Franklin:** Yeah.

**Richard Campbell:** "The thing that really grabbed me was the talk with Henrik Andersson."

**Carl Franklin:** Oh, man.

**Richard Campbell:** "I designed a user interface for rail control system here in Sydney, Australia," and I think he means rail as in railways.

**Carl Franklin:** Right.

**Richard Campbell:** "And one of the big usability problems I have is that we use four to six screens to display control maps to the signalers." I just love it when somebody just speaks in their domain.

**Carl Franklin:** Yeah.

**Richard Campbell:** We don't necessarily know what the heck a signaler is, but it sounds cool.

**Carl Franklin:** It sounds cool. I got an idea.

**Richard Campbell:** Yeah. "This makes it a tedious task to move the mouse from one end of the map to the other and makes it difficult to provide contact sensitive information from the interface. I was intrigued to hear about Henrik's product and it renewed my thoughts of things I could do with our user interface. I first came across the concept when watching an iTunes U video from Stanford entitled 'Gaze-enhanced User Interface Design' where they spoke about using eye tracking for coarse-grained movement of the mouse and fine-grained positioning with the mouse. I put this in the sci-fi future basket at the time because all this was based on research level hardware. Knowing that these products actually exist out there may lead to some fun R&D for my team in the not too distant future. Thanks for a great show and for giving me entertaining and stimulating listening material for my commute to work." We never actually said this outright, but the third interview that

we had in the Cool Projects was Henrik Andersson's thing. We saw this in the bar the night before. Remember?

**Carl Franklin:** It's an amazing eye-tracking software for .NET.

**Richard Campbell:** Yes. You know, Andrew, you're addressing a problem I got when I built my big triple because my triple is a 30-inch panel in the center with 20s on the wings so it's 4960 x 1600 and I actually had to switch to a trackball because getting the mouse from one end of the screen to the other is too far for a mouse pad.

**Carl Franklin:** How about this? My setup in the studio, which is where I am right now, I have two 30s side by side and above that a 65-inch plasma.

**Richard Campbell:** Being able to look around and just get the mouse for where it needed to go.

**Carl Franklin:** Yeah.

**Richard Campbell:** That's the thing. So interesting thinking and worthy of a mug to Australia.

**Carl Franklin:** Absolutely.

**Richard Campbell:** So thank you, Andrew. We're going to send you down a .NET Rocks! mug. If you'd like one, you can comment on any of our shows at [dotnetrocks.com](http://dotnetrocks.com) or write us an email at [dotnetrocks@franklins.net](mailto:dotnetrocks@franklins.net).

**Carl Franklin:** Well, before we start geeking out here, Richard, I got to tell you about Pluralsight. [Pluralsight.com](http://Pluralsight.com) provides comprehensive developer training online. They have nearly 200 hardcore developer training courses authored by MVPs and industry experts and they release 8 to 10 new courses every month. You can access their library free for 10 days, 200 minutes of training, all you can get. They have a wide variety of developer training courses including coverage of iOS, Java, Android, Web development, and pretty much anything you can think of on the Microsoft stack. So, try it today. Subscription plan start at just \$29 a month, [pluralsight.com](http://pluralsight.com). And that brings us to our guest. Speaking of cool programming projects, Corey is an inspiration in that regard. Most people know Corey Haines from his journeyman travels in 2009 when he spent nine months programming in exchange for room and board. Since then he's focused on raising awareness of improving development practices through code retreats, training, and speaking at conferences around the world. He lives in Chicago with his girlfriend, Sarah Gray, with whom he is also starting a consulting business doing technical

advising for none and less technical founders of startups. Welcome, Corey. Welcome back.

**Corey Haines:** Hey Carl and Richard. How are you guys doing? Thanks for having me.

**Carl Franklin:** Thanks for being here. We're doing great. The last time we talked you were traveling all around the world coding for food basically which I thought was the coolest thing and I wish I could have been at some of those events.

**Corey Haines:** Yeah, it definitely was a lot of fun, you know, being able to drop in to places for a day to a week and just sort of come in, no real hang-ups about, "Oh, I get paid this much for hour," all of that. Just come in, share with them, learn from them, see what they're working on code and it's very intense when you go in and you have a day. You don't mock around too much.

**Carl Franklin:** Right.

**Corey Haines:** You come in, you drop in, and you just start writing code with people. It's a lot of fun to do that.

**Carl Franklin:** And I would imagine, I mean for me I would learn as much as I taught, I mean probably more from the people that I'm working with and of course it turns out to be mutually beneficial. Before we start talking about code retreats which is a really fascinating thing that you're doing, I want to talk a little bit about what you're doing with kids.

**Corey Haines:** Uh-hm.

**Carl Franklin:** Because we were talking about this at Oredev a little bit just at breakfast I think. Tell me about some of the stuff you've been doing with kids.

**Corey Haines:** So last summer I taught a Scratch class to some high schoolers.

**Carl Franklin:** And Scratch is?

**Corey Haines:** Scratch is a graphical programming language. So it's kind of like if you remember back in the late 1990s programming IVRs were all sort of block-based so you would basically drag blocks or call flow or you would drag loops and drag if statements. It's a lot like the programming language for the LEGO Mindstorm.

**Carl Franklin:** Okay.

**Corey Haines:** And you just sort of loops or they look like vices and then you drag other blocks and control structures inside of there and it's all sprite-

based so you're basically just working, moving sprites around. It has built-in collision detection, things like that. It's built in Squeak.

**Carl Franklin:** Squeak?

**Corey Haines:** Squeak, which is a Smalltalk dialect.

**Carl Franklin:** Okay, all right.

**Corey Haines:** So basically you just pull down an image and start working with it. It's really great because there's not really syntax you have to learn, the kids don't run into that problem where their program doesn't work because they forgot a semicolon which is frustrating at best.

**Carl Franklin:** Yeah.

**Corey Haines:** Before that I've been doing in the Ruby community, there's quite a few programs that have been started over the last few years specifically targeting kids. So there's like a kid's Ruby program that they go around and do which is a couple hour session teaching kids just the very basics of Ruby. There's a program called Hackety Hack that Why the Lucky Stiff started. Steve Klabnik has since taken over and there are a lot of really educational movements coming up. So I talked to them and worked -- mostly they do a lot. They're all of the heavy movers and I'm looking to do a little bit of behind the scenes work with the organizational stuff.

**Carl Franklin:** Yeah. Well, that's good. One of the things that you were telling me that you did with the kids was using the Kinect.

**Corey Haines:** Yeah. Stephen Howell in the UK had put together, this was pre-Kinect SDK, he had put together a system to allow the Kinect to be the input device for Scratch. So you could build a Scratch program where it reacted to the joint data coming in off the Kinect. So some of the teams in my class last summer built a dancing game, built sort of a bouncing ballgame where their hands were the actual controllers. So it's really great to be able to take them out. I mean the class itself I think was about six weeks, eight weeks, something like that and by the end of the class, it was effectively one day a week of real programming and by the end of it they were building games that actually their bodies were the controllers for it. It was fantastic and really inspiring.

**Carl Franklin:** That's great. What a way to get kids really into the idea of programming. I mean because if you think about it, it's all about -- what got me into it was control and instant gratification, you know? I mean it was that whole idea about I do some

weird stuff that nobody understands and then I press a button and magic happens.

**Corey Haines:** Yeah.

**Carl Franklin:** Even when it was text, even when it was a Mad Libs program in my bedroom when I was 10, it was still magic. I think kids are less impressed these days with something that you can do in your first day of programming.

**Richard Campbell:** Well, I think they're also living in a much more magical world.

**Carl Franklin:** Oh, my God, yeah.

**Corey Haines:** Yeah, like the very first class we did at the end of an hour-and-a-half. We had a working pong game which is...

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

**Corey Haines:** I know it's pong but these kids haven't programmed before and in an hour-and-a-half they had built something that was playable. It was a two-player pong game.

**Richard Campbell:** Yeah, it's pretty compelling.

**Corey Haines:** Yeah.

**Carl Franklin:** Well, I got to tell you something that really inspired my 9-year-old daughter. You know the old text adventure interactive fiction games.

**Richard Campbell:** Sure.

**Carl Franklin:** The Infocom games, Zork and all that. Well, I decided to, because I didn't really have anything better to do one day, to write an engine for building a game. So it quickly grew out of control of course. No, it's not out of control, just constant tweaking and refactoring and moving around and stuff and to test it all out, I built a game that's based on my house. So I have my driveway and my garage, and my yard, and the key, and the door is locked and you got to go in the bushes to find the key and then when you try to open the door when it's locked it says something flip like, "I'm sorry but you can't walk through doors," just to make you feel stupid, that kind of stuff and then going up the stairs and looking around. Of course, she was hooked right away and she wanted to go up into her bedroom and look around and stuff and find the things.

**Corey Haines:** Yeah.

**Carl Franklin:** So I'm just at the point now where she's getting interested in being able to add things and then add actions that you can do to those

things and then add consequences of actions and things in different states as triggers and it's all programmable of course and it's all declarative.

**Corey Haines:** Yeah. Now that's the way I started programming. The thing that really turned me on as a kid was playing the games, not being able to get past certain parts and then just hitting break and of course it told you what line number you broke on and you could list around there, read, see what you were supposed to be doing and then type resume. I think it was resume or continue.

**Richard Campbell:** Resume.

**Corey Haines:** Was it resume?

**Richard Campbell:** Yeah.

**Corey Haines:** And it would start up again and you could actually say, "Resume line 200," and it would start there.

**Carl Franklin:** Right.

**Corey Haines:** So you could just jump past the parts that you couldn't get past.

**Richard Campbell:** You were cheating!

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

**Corey Haines:** Absolutely. It's just a wonderful way to learn the program I think is by that, things that you are interacting with. So you're not, "Oh, I'm going to write a program that calculates the circumference of a circle." It's "No, I'm writing a pong game," or I'm writing, you know, we wrote a side scroller that was based on, what do you call it, Robot Unicorn Attack.

**Richard Campbell:** Oh no.

**Corey Haines:** So we taught them how to do background scrolling and the idea of gravity jump where it slows down as it goes up. It was just a really great thing because they could tweak it so easily and there's just no frustration around it. There's frustration with trying to get the algorithm correct or the messaging between the sprites correct but no frustration or very little frustration around the things that weren't important like variable names or syntax sort of thing.

**Carl Franklin:** Semicolons.

**Corey Haines:** Yeah, semicolons. So it's just fascinating. It was really inspiring to watch these kids pick it up and become interested in it. Not all of them were suddenly wanting to be programmers, but they all had a better view of what the idea of programming

was and that really leads into that idea that as computers become and have become so prevalent in society and in the world around us, it's a basic understanding of scripting or what it means to program a computer is if it's not already there, it's very soon going to become part of basic literacy.

**Carl Franklin:** I also think that there's a whole contingent of kids and adults alike, probably more adults, that are afraid of technology because it is magical and they don't understand it and they don't think they will ever be able to understand it and, therefore, the idea of having a Kinect connected to the Internet is horrifying for some people because that means people are going to spy on me or whatever. Do you know what I'm saying?

**Corey Haines:** Uh-hm.

**Carl Franklin:** So not that that couldn't happen, but I mean it's the same people who are afraid of flying which is the safest form of travel in the world because you hear about the accidents but you don't hear about the millions of planes that safely land and take off every day.

**Corey Haines:** Yeah.

**Carl Franklin:** This portion of .NET Rocks! is brought to you by Telerik JustCode. If you're like me, you're probably using some productivity add-on in Visual Studio to check, refactor, and test your code but how do you like to get a complete list of your solution's errors on the fly as you type? And not just for the open files. The new kid on the block, JustCode, does just that for all supported .NET languages as well as JavaScript. It's like having a compiler running all the time only that JustCode is faster and requires less CPU time. One area where JustCode is definitely better is performance. The tool provides the fastest code analysis and better performance without slowing down Visual Studio. Another reason to try it is JavaScript support. It will help you read, navigate, and refactor your JavaScript code better than you've ever imagined. Learn more about the features JustCode offers and download a trial at [telerik.com/justcode](http://telerik.com/justcode). And don't forget to thank them for supporting .NET Rocks!

Well, let's talk about code retreats.

**Corey Haines:** Excellent.

**Carl Franklin:** Tell me what you're doing here. What is this Global Day of Code Retreat all about and how is it different from any other kind of get together?

**Corey Haines:** So code retreat is the thing that I and a bunch of people around the world have been doing for almost the last three years, kind of really fine

tuning it and it's primarily a community based day of practice. The fundamental idea is that developers don't really take a lot of opportunity to practice the fundamentals of development because we're always trying to get things done.

**Carl Franklin:** Yes.

**Corey Haines:** Whether it's deadlines at work or the open source projects we're working on or just our small little tasks, we always have this overhead of I want to finish and because of that we naturally and rightfully so cut corners in our coding and in our designs. So what code retreat originally started out as and over the last three years has been fine tuning the format to really capture this goal is to provide a day where you can't actually finish. So you free your mind up and you start working on practicing how to write really great code and really great better designs that are more malleable. These happen all over. A lot of people facilitate them. I've been facilitating them for almost three years. I think I have between 30 and 40 events or trainings that I've facilitated. There are a lot of people around the world. Europe goes crazy for them. They have them all the time. 2011 you've been seeing like ones where there will be two on the same day, maybe one in the States and one over in Europe. Last probably fall or winter I was thinking, "Man, what if you took a day and had a bunch of them all over the place and they skype together?" So it was the same -- code retreat has a very specific format. It has a very specific problem that we work on and very specific learning goals. So I thought, "Man, it would be really cool to get a bunch of cities together and do them all on the same day and skype and have this sort of sharing community type of thing around the world." A lot of the people who spend time with me say that they get used to me starting off sentences with things like "I wonder what would happen if" or "wouldn't it be neat if?"

**Richard Campbell:** Yeah, wouldn't it be cool.

**Carl Franklin:** And then a day later here's version 1.0.

**Corey Haines:** Yeah and so I had talked about this idea of having a global day where there's a few cities around the world and about maybe four months ago, three months, four months ago I finally put out a blog post and I said, "Man, wouldn't it be cool if we had about 20 cities around the world all doing this on the same day and skyping so that when one event ended, they could skype with another event that was beginning and so kind of pass the baton style?" I put out a little survey form to get people's interest, started getting people contacting me, more people started being interested. A guy I know who's been facilitating some of them named Jim Hurne in Pittsburgh, he started picking up some sort of co-organizing tasks

with me and I just basically said December 3rd all across the world, let's try to get 20 of these cities together. We hit 20 like August, the end of August, and then we hit 30 cities plan, and then 40 cities plan, and then 50 cities plan. All through the fall, September, October and November, we're starting to -- we just kept hitting new milestones. So, I was like, "Man, it would be great if we could get 60," and then a week later we have 60 cities all registered and we had a mailing list for the hosts. We started talking to a couple companies to do some sponsorships and my plan was to fly to Sydney, Australia, and facilitate the very first code retreat and sort of kick off the day and yay everybody and then somehow figure out how to get to Honolulu, Hawaii, and facilitate the last event of the day.

**Richard Campbell:** Right, using the dateline in your favor.

**Carl Franklin:** Right.

**Corey Haines:** Yes, much like Superman when he saved Lois Lane, very, very similar. So I called up Delta, which is the airline I fly and said, "Here's my plan. I need to get from Sydney, Australia, to Honolulu, Hawaii. I need to leave in the evening and arrive in the morning of the same day." It turned out not on Delta but there was another airline that had one flight that left Sydney at 6:00 p.m. that landed in Honolulu at 6:45 a.m. the same day on December 3rd.

**Richard Campbell:** Nice. You arrived 12 hours before you left.

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

**Corey Haines:** Yes, exactly. The flight was nine hours long. So I bought the ticket and there's that and then through October and November more cities and more people all around the world started hearing about it a little bit. It was all word of mouth, Twitter, all of that, and by the week of December 3rd, we ended at about 93 or 94 cities.

**Richard Campbell:** Holy man!

**Carl Franklin:** Wow.

**Corey Haines:** So we had Sydney, and Melbourne, and Brisbane, and Perth, and we have Tokyo and I think Beijing. We had three or four in India. So before I left Sydney, I skyped with Pune, India, and then as it moved to the time zones, we had, I don't know, I think we had 30 in Europe. We had one in Africa. We had a bunch in the States and then we had a couple in South America and they were skyping back and forth talking to -- they're very local distributed events but during lunchtime they would

have a quick Skype call with another city in a different time zone and then I put together a quick little application, a quick little webpage that let the individual cities update their status of were they in a session, on break, at lunch, and what part of the day because the day has a very specific format so you could see it. So the really neat thing was that I left Australia and India had just started. So there were maybe six or seven cities active on the site changing their status and then when I landed in Honolulu which was the end of the day, I looked on it and about, I think about 80 to 85 of the cities had been actively updating their status to the course of the day.

**Richard Campbell:** Nice.

**Carl Franklin:** Wow.

**Corey Haines:** And so I landed and it was just this, wow, amazing. So I landed and skyped with I think Pittsburgh, skyped with San Francisco, skyped I think with one of the Florida ones. I mean I skyped with Madrid, Spain. They had just finished and ended up skyping with the organizers in their car while I was just getting ready to start Honolulu. So, yeah, it was this great day.

**Carl Franklin:** What was the actual content that everybody was focused on?

**Corey Haines:** Okay. So the format is 45-minute sessions. You do five or six sessions a day and you work on Conway's Game of Life and at the end of the 45 minutes you delete all of your code. So you pair up, you work on, you know, you practice TDD, you practice better design principles. You really focus on the four rules of simple design and really just using Conway's Game of Life as not a problem to solve but as a medium to practice design considerations and design decisions.

**Carl Franklin:** I see.

**Corey Haines:** There are a lot of wonderful subtleties that you can investigate using Game of Life.

**Carl Franklin:** So the idea was to code? I mean the algorithm is well known so the idea was to code it and then erase everything and then go back and practice using the right tools, and the right practices, and the right methodologies so that at the end of the day you still have the Game of Life but you've done it the right way.

**Corey Haines:** Yeah, and you've done it like I always hesitate to say the right way as much as a better way than you did it before.

**Carl Franklin:** Okay.

**Corey Haines:** One of the things that I like to talk about that we practice is that it's not really -- I don't really think that there's an objective thing called good design. I think that there's something called better design and better design are designs that are more easy to change.

**Carl Franklin:** Well, and the key is the relativity there. Good means good compared to what, right?

**Corey Haines:** Yeah, yeah. So a design is better if when you need to change it it's easier and more cost effective to change your software and so we focus very much on that. During the day, different sessions have different constraints to help people explore different ideas around designs. So it's not just like a \_\_\_\_\_ of "okay, try to build it six times." We'll have a session where you don't get to use any language primitives.

**Carl Franklin:** Yeah.

**Corey Haines:** Or no if statements.

**Carl Franklin:** Right.

**Corey Haines:** There's almost always a session where we do some pairing exercises. One of them is mute where you can't talk to your pair. You can only communicate through your tests. So there's a lot of these sort of facilitation guidelines of here's ideas on how to use the problem domain to highlight techniques that you can try and design ideas. For example, one of the four rules of simple design is no duplication and it's really about the idea that knowledge should be encapsulated in one place, not as much code as much as knowledge. So in the Game of Life, it's the very simplest form is played on a two-dimensional infinite grid and so you see a lot of people passing XY parameters around all their methods. So it's a great opportunity to look at the idea that that spreads the knowledge of your topology throughout your system. So if the topology changes, then you have to go through and make changes in a bunch of places as opposed to encapsulating the topology knowledge into something like a location object or a location class. So nobody, none of the rest of the parts of your system knows whether it's a two-dimensional or three-dimensional or bounded or unbounded. They are always asking one central place for that information. So there are all of these little subtle fun pieces of the problem domain that you can use to really practice different ideas around design.

**Richard Campbell:** So Carl?

**Carl Franklin:** Yeah, Richard?

**Richard Campbell:** You ever embed Excel into an application?

**Carl Franklin:** Ugh, you know, that's right up there with sticking ice picks in my ears.

**Richard Campbell:** Nice.

**Carl Franklin:** Because your end users have to have the right version of Office and all that stuff.

**Richard Campbell:** Yeah.

**Carl Franklin:** And it has that extra layer of dependency. What I want is just a way to take all that Excel goodness and plop it right into my .NET application.

**Richard Campbell:** Well, you reminded me of PowerPoint Spread from the old days.

**Carl Franklin:** Yeah, 20 years ago I use PowerPoint Spread but now, of course, it's GrapeCity PowerTools Spread and now you know they have this version that's both for ASP.NET and for Windows Forms in one package.

**Richard Campbell:** Nice.

**Carl Franklin:** Yeah, it's two different controls obviously but it's in one package, so...

**Richard Campbell:** You bought one, you bought the other.

**Carl Franklin:** Right, Spread.NET from GrapeCity PowerTools.

**Richard Campbell:** Smarter components for smarter developers.

**Carl Franklin:** Wow. It's just blowing my mind how the whole idea of the simultaneous occurrence is just amazing. What I'm curious is what kinds of things were you skypeing about during those sessions and was everybody involved? Like did you get everybody together in the room and then get a video feed with different cities and then talk about what they did? How was that knowledge passed on?

**Corey Haines:** The skype calls were all coordinated individually between cities. So like I didn't do very much like kind of global coordination of you're going to talk to this person, you're going to talk about this. So there were a lot of just sort of individual cities talking. They tended to be like during lunch, or before the day, or after the day since the sessions themselves were very local-focused and you've got anywhere from 10 to 20 to 30 people at a code retreat so we didn't want to disrupt the focus on



the local learning and the local people and the local community by saying, "Okay, this session you're going to be skyping with another city." So the Skype calls tended to be much more, "Hey, how's it going? We're here in Krakaw," and the other city, "Oh, we're here in Reston, Virginia. Awesome." The Skype calls were very much intended to be about bringing the global community together and emphasizing the fact that these were happening all over the world as opposed to like sharing and saying that two cities are doing it together similar to like the website was really about showing that there's all of these people happening. The nice thing was that they were all happening local time. So it starts usually about 8:30, 9:00. I think we ended up about 14 time zones. So as a time zone would hit 9:00 they would be starting. I think I was about a week-and-a-half or two weeks away from having a session in Antarctica happen.

**Carl Franklin:** Whoa.

**Corey Haines:** I was tracking down my network and I think I was maybe 2 degrees away from somebody who was actually in Antarctica and probably would have been able to do, say, one 45-minute session. It wouldn't have been like a whole day type of thing.

**Richard Campbell:** Right.

**Corey Haines:** But that would have been neat. So next year Antarctica will be in it. My goals for next year, because this was just such a success and the feedback that we got from the participants, the organizers, the facilitators, all of that was that it definitely needs to happen next year again. So my goal for next year is 200 cities and Antarctica of course and my stretch goal because 200 cities is just, well, that's just a given, so I want to stretch it a little bit and I would love to have at least a Skype call with a space station.

**Richard Campbell:** Nice. Yeah, getting 45 minutes of an astronaut's time is a little tricky but who knows.

**Corey Haines:** Who knows if you could get 45 minutes, but maybe you could get one minute. I mean that would be something but a 45-minute, I mean the astronauts, I bet you a large majority of them can code.

**Richard Campbell:** Yeah, at least a few.

**Corey Haines:** I mean they're engineers. So that's my stretch goal. I've got to start working my network as soon as possible because I think it's going to be a farther, a longer path to somebody on the space station through my network than it would be to get a developer in Antarctica but yeah, that's kind of

what we did. It was all sort of, "Hey, wouldn't it be cool if," and in the end it was.

**Richard Campbell:** Yeah. It sounds like it was very cool and went well and these are still going on. It's not that you're all doing them on one day now, right? This still go on routinely.

**Corey Haines:** Yeah, yeah, yeah. There's one. If you go to [coderetreat.org](http://coderetreat.org) which is our community network where we're centralizing a lot of the information, blog post, information about hosting, facilitating, all of that, as well as event announcements. There's one coming up in Amsterdam. I think there's one coming up in Pittsburgh early next year within the next two months. I'm going to be doing one in Cleveland after CodeMash which I guess is what? A week away from when this airs and most of them is right now I think people are just exhausted but most of the people that organized and facilitated the code retreats for global day, it was their first time doing it.

**Richard Campbell:** Right.

**Corey Haines:** And the feedback we got was like, "Okay, well, when is the next one?" So we put together this social network. It's based on Ning where we can really centralize information and guidance and what does it mean to host it, what's the format. With the format being very set and specific, it makes it -- there's less of a barrier to entry for people to do one.

**Richard Campbell:** Nice. Yeah, just getting the process down pat so that people could just focus on actually participating in the retreat rather than running the logistics out.

**Corey Haines:** Yeah.

**Carl Franklin:** So is there a list of cities typically on your website where people sign up if there isn't something already going on in your city?

**Corey Haines:** Yeah. So [coderetreat.org](http://coderetreat.org) is pretty much the place. There's a list of the events coming up and there is information about organizing, information about all of that and really anybody who wants to organize one, might have any questions can definitely feel free to email me or go on to the site and leave a message. There are a lot of people on there that are participating and talking about it. Lots of blog posts are on that site from people who've done them and you can go there and get a bunch of information.

**Carl Franklin:** Okay. Wow, great, Corey. Always a pleasure to talk to you and I love what you're doing with kids, and the Kinect, and Scratch, and all that stuff, and the code retreat thing is just blowing my mind.

**Corey Haines:** Thanks a lot. Can I make one little thing about the community fund?

**Carl Franklin:** Go right ahead.

**Corey Haines:** So one of the things that we announced at Global Day at Code Retreat is the formation of a nonprofit called the Code Retreat Community Contribution Fund. We're actually in the process of going for 501(c)(3) status.

**Richard Campbell:** Nice.

**Corey Haines:** And it has two primary goals. The first goal is to help fund adult education programs such as code retreats, community oriented, free, both adult education and developer practice events. The other goal which is a little bit larger is become a central place for coordinating, supporting, just all around helping out all of the disparate and disjointed kids programming activities. So you have people in the UK, you have people in San Francisco, you have people in Pittsburgh, you have kids Ruby and Hackety Hack and Jason Gorman's teacher exchange program. There's no central place where a large company could give a substantial amount towards the goal of teaching kids to program and so what we're looking to be is a, you know, when we get our 501(c)(3) status, a tax deductible organization that will dole out money to these individual programs, helping them grow and spread so you might have a company like Microsoft or ThoughtWorks that would love to give \$50,000 say to help teach kids to program but finding the individual small one and giving them that much money is often difficult to do.

**Carl Franklin:** Yeah.

**Corey Haines:** So we're going to be that and help dole it out. We're also working with some partners in academia to work on acquiring government grants as well. So we're going to be talking to companies about doing matching donations. So there's a grant coming up that we're going to be applying for that I think is around \$250,000.

**Carl Franklin:** Nice.

**Corey Haines:** So we're going to be talking to companies saying, "Hey, if you would say you'll match 20,000, then we are much more likely to get the government grant if we actually have industry matching funds." So that's sort of the big long-term thing that a few of us are doing coming out of building up the momentum around code retreat.

**Carl Franklin:** Well, that's great, Corey. Keep doing what you do. You're an inspiration to us all.

**Corey Haines:** I appreciate it. Thanks for having me on again. It was good to run into you guys over in, what was that, in Sweden.

**Carl Franklin:** Yeah. It's hard to keep track of them, isn't it?

**Corey Haines:** Yeah.

**Carl Franklin:** All right. Thanks again. And we'll see you next time on .NET Rocks! Hey, thanks for listening and remember [pluralsight.com](http://pluralsight.com) is where you can get 200 free minutes of free video training by guests on .NET Rocks! and other experts in the field, [pluralsight.com](http://pluralsight.com).

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