



Hanselminutes is a weekly audio talk show with noted web developer and technologist Scott Hanselman and hosted by Carl Franklin. Scott discusses utilities and tools, gives practical how-to advice, and discusses ASP.NET or Windows issues and workarounds.

## Text transcript of show # 59

April 11, 2007



### Data Backup Strategies

Carl and Scott discuss the weeks events in their technology lives, in this 3rd Hanselminutiae. Who are the Spyware People? Is the AppleTV any good? What's your backup strategy? And Scott's Dad gets a Mac.

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**Lawrence Ryan:** From [Hanselminutes.com](http://Hanselminutes.com), it's Hanselminutes, a weekly discussion with Web developer and technologist, Scott Hanselman, hosted by Carl Franklin. This is Lawrence Ryan, announcing Show #59, recorded Wednesday, April 11<sup>th</sup>, 2007. Support for Hanselminutes is provided by telerik r.a.d. controls, the most comprehensive suite of components for Windows Forms and ASP.NET Web applications, online at [www.telerik.com](http://www.telerik.com). Support is also provided by .NET Developer's Journal - The World's leading .NET developer magazine, online at [www.sys-con.com](http://www.sys-con.com). In this third episode of Hanselminutes the focus is 'Data Backup Strategies'.

**Carl Franklin:** Hi, this is Carl Franklin. You're listening to Hanselminutes from [Hanselminutes.com](http://Hanselminutes.com). How you're doing Scott?

**Scott Hanselman:** Oh, it's been quite a week Carl. It's been a little crazy; I've been running around, playing IT manager for the Hanselman family.

**Carl Franklin:** Yeah, speaking of IT, we did RunAs Radio this week, first episode.

**Scott Hanselman:** Yeah, Greg Hughes and Richard Campbell.

**Carl Franklin:** Yeah, and that turned out really well.

**Scott Hanselman:** Yeah, it's going to be great. I respect those guys a great deal and Greg is a very good friend of mine. He works here at Corillian and he is a deep IT guy with a real hardcore security focus. So, I think they are going to play off each other well and I think people should that out.

**Carl Franklin:** So if you don't know what we are talking about, it's a new show we are doing every week. Richard Campbell is the host. Greg Hughes, who works with Scott, is the co-host and it's about IT with a Microsoft-centric view and that's at [runasradio.com](http://runasradio.com). So, I've been busy too because I actually edited the show and got the new show online and added the modules to the code to be able to handle the new show and blah, blah, blah. So, it went fairly smoothly but it just took a long time.

**Scott Hanselman:** My parents live down about two hours away from where I am at. So, I have been trying to do a lot of -- I mean, although I don't visit them as often as I can, but I try to do most of my work remotely.

**Carl Franklin:** Sure.

**Scott Hanselman:** Remote in, use [copilot.com](http://copilot.com), VNC, different things like that but sometimes you just can't get the work done that you want to get done and I posted on my blog a while back about having a backup strategy for your family -- how important that is to have a backup strategy, because basically what happened was I lost my dad's email; I lost two years of his email.

**Carl Franklin:** Yeah, you were telling me about this; this was the one that you used this FireFox or whatever.

**Scott Hanselman:** Yeah, Thunderbird.

**Carl Franklin:** Right.

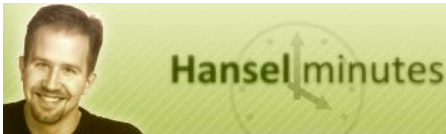
**Scott Hanselman:** It's the FireFox kind of suite, the Mozilla suite of things, and I just got confused or -- I mean I don't even really know what happened. So then I kind of went on this tour to go and backup the whole family. I drew this diagram and kind of presented it to the whole extended family about how exactly we are going to backup all of our stuff up. I'm okay with being the hub of these things, but the problem was that the strategy was very vague before and had never been written down and talked about. So, I got all those little two gigabyte, tiny Kingston what do you call it, little USB keys, are like the size of a piece of Trident gum.

**Carl Franklin:** Yeah, they are the size of the USB connector.

**Scott Hanselman:** So, all the family members who have no broadband - all of the dial-up family members have those little two gigs now. So, I went over to 86-year-old uncle Ronny's house and hooked him up with a batch file that would copy his my documents onto that little device and suppress errors 'y' all that kind of stuff, have it run on a weekly schedule. So, his emails backed up because he is on a laptop that's definitely running on borrowed time.

**Carl Franklin:** If he is like anybody in my family, my mother grew up -- parents grew up in the depression, so they have that save everything mentality, and one of the things they like to save is electricity by turning the computer off when it's time to do the automatic updates. So, it's very hard for her to get automatic updates because she turns her computer off when she is not using it.

**Scott Hanselman:** He is the same way. I set it up to backup in the middle of the afternoon when I know he is on the machine, and I also made it so he could back it up whenever he felt like, and he'll probably end up running it himself. But he



has also gotten the habit of printing out his entire contact list; so, he puts it to a hard copy as well, because he is the keeper of all records Hanselman. He is the whole...

**Carl Franklin:** The family history...

**Scott Hanselman:** The whole family tree, everything is managed in hard copy - very organized. So then, I go over there once in a month and pick up that device, copy it to my system, take it home and then put it on to my Microsoft Home Server.

(00:05:00)

**Carl Franklin:** That's a good idea.

**Scott Hanselman:** So, all of the dial-up people do Sneakernet, which is a very effective way of doing things and now I'm setup with [Mozy.com](http://Mozy.com).

**Carl Franklin:** Now, what's that?

**Scott Hanselman:** That's the online backup service; it's 50 bucks a year and they will backup an unlimited amount of data. Right now I backup about a 100 gigs.

**Carl Franklin:** So, how does it work? I mean, do they just do a low speed constant backup stream?

**Scott Hanselman:** It's actually -- you can set it to throttle of any speed that you want, but right now mine is going at about 600 K a second. It's been running for the last week and a half. It's just about finished. Then they'll do differential backups from there. So, I won't use up so much...

**Carl Franklin:** What I might think is, if you have a lot of data, and if you lose it and it's all on an online backup thing, it will take a long time to download it.

**Scott Hanselman:** Well, with Verizon FiOS, in the US at least, you've got 15 megabits down. I presume that Mozy might not necessarily send it to me as fast as that, but certainly within a few days I could get the majority of what I want. I don't need to get my VMs and My Music immediately; I'm more interested in taxes and personal files. So, for us about three gigs is the essential amount. That's the kind of the amount of really important stuff. Then it's about 15 to 20 gigs of pictures - family photos - and then it gets into video, raw video, virtual machines and music and stuff like that.

**Carl Franklin:** Okay.

**Scott Hanselman:** So, I set the parents up with Mozy - they've got a cable modem - and before I did this my dad had been having some trouble with his machine so he brought it over to the house. He comes up to see my son a couple of times a week, so he brings the computer up to the house. It was full of Spyware, so I put on IE7, put on Firefox, showed him both of them, set it up with Spybot; it's been quite a while cleaning it up and making it nice - and then sent him on his way. And the next day, the system was infested with some kind of Russian virus, Trojan, Evil thing. And I said -- he felt really bad. I don't think he has to be -- he shouldn't have to be computer savvy, so he felt bad but whenever somebody gets some infestation like this on their machine I try not to make them feel guilty because it just happens. So, I'm trying to figure out - I've got the thing immunized, I've got antivirus software, how in the world did he get this thing on? Well, somebody sent him a picture of like, an elephant eating a snake, or a snake eating elephant or something - a video basically, and I said, how did this happen? He said, well I didn't do anything last night; I came home after I left your house and my buddy sent me a picture of, I mean, a video of an elephant eating a snake and I watched the video - and that was it. Well, it turns out that it had some kind of Custom Video Codec that it auto downloaded, and it said, you can't watch this video unless you download this video codec. The codec was an evil toolbar and the evil toolbar brought friends to the party. The next thing I knew, a balloon popped up, like the little balloons from the tray - balloon pops up and says, your computer is infested with Spyware. Click here to download an anti-Spyware program.

**Carl Franklin:** And that probably is also Spyware right?

**Scott Hanselman:** So, he downloaded a program called SpyLocked. SpyLocked is actually an anti-Spyware program that is evil. The thing is that when he sent me a screenshot -- I taught both of my parents how to do screenshots, that's kind of their primary way of saying that something went wrong. Hit print screen and send it to me. So, I get these two-gig -- not two-gig, rather two-meg big images like what's this, and then a big screenshot of something horrible that's happened. The part that killed me was that the balloon had said, "Click this balloon" and spelled balloon wrong.

**Carl Franklin:** No! There is your first clue.

**Scott Hanselman:** Your first clue that something has gone bad is poor grammar, poor spelling. You think that evil people would realize that spell



checking would make it more likely for us to do their evil things.

**Carl Franklin:** But poor grammar is the thing that's very difficult for somebody who doesn't speak the language to get right, because you might know somebody who kind of speaks both languages. But for the kind of people we are talking about, they are not the most highly educated people in the world that write these things.

**Scott Hanselman:** I don't know. I can't speak to that because I don't know who they are. I know that they are very likely contract programmers that don't think they're doing -- I mean presumably they are not doing evil. I've always wondered about this, who are the Spyware people? Maybe one of the Spyware people is listening to our stuff and can call me and let me know who they are; because I want to know, are you sitting at home thinking, I could do this really evil thing; I could name my DLL an eight character random name and hide it in System32, or I could misspell calc, and I could be calc2.exe.

(00:10:04)

**Carl Franklin:** So, I got a story for you. Once, when I was working at Voyetra Technologies - these are the guys that made a DOS MIDI sequencer back in the 80s, and Cakewalk ate their lunch basically. These guys had copy protection on their stuff and that's probably a big reason why it didn't last. So, DOS based sequencers. So, one person -- somebody calls up for tech support, and everything is going really slowly. I'm running out of memory and your Sequencer Plus is -- I'm losing time, all this kind of stuff. So, then they spent about an hour on the phone with the technician, it's got all the way to the main developer, and he is like, well, honestly I'd have to see the computer. And so, the person said, well I'll drive it over. I think they were at Fordham or something like that, and we were in Westchester County, New York. So, this person drove up with their computer, which was an old IBM XT -- this was about that time, and monochrome screen and everything -- and that it's going slowly, sure enough. They plug it in, and they don't know what's wrong with it. They are looking around, there's nothing crazy going on, it's just running really, really slow.

**Scott Hanselman:** Is it the turbo button?

**Carl Franklin:** No, the turbo button was pressed. It was like, they would like, do a directory, and it would spit out characters like bunk, bunk, bunk -- I mean it was really, really honking slow. So, I

just walk up to it and I said, maybe it's a virus, and everybody goes, ah! pooff.

**Scott Hanselman:** What year is this?

**Carl Franklin:** The head developer. This must have been '88, '89.

**Scott Hanselman:** This was the time of the Stoner virus and the TSR viruses.

**Carl Franklin:** Yes.

**Scott Hanselman:** TSRs.

**Carl Franklin:** TSRs. So, the head developer there goes, ah, you are crazy. Then one of the other guys who worked there, one of the developers said, well, wait a minute, let's look. He went into the DOS directory and he did a directory, DIR, and he saw that BEEP.COM was in there. Remember BEEP?

**Scott Hanselman:** Oh, BEEP.COM; because when you type 'BEEP' there was the order of precedence.

**Carl Franklin:** Yeah, so BEEP.COM was like 539 bytes lets say. So he typed it 'BEEP' and it went 'beeeep'. Then he did another 'directory', and BEEP.COM was all of a sudden 800 something bytes.

**Scott Hanselman:** Right.

**Carl Franklin:** Aha! Yes, it is a virus. So, it turns out that that was the first time I said, hey, maybe I'm not so stupid after all. But it turns out that this person was connected to a network at school through modems -- there was no networking really, but it was just...

**Scott Hanselman:** Like BBSs in FidoNet.

**Carl Franklin:** Yeah, it was a school network in a school BBS and this person had downloaded something and picked up a virus. So, even back then, the TSRs were there in memory and would attach themselves to the end of executable files, and that's how they spread.

**Scott Hanselman:** The question that I want answered is, do they have whiteboards and meetings like we do? Do they sit in a room and do they say, okay, here is how it's going to go down? We've just got this Microsoft IE browser, and there's this thing called the Browser Helper Object and we could make an evil toolbar, takeover the world. I understand these guys who go to college and they might write a proof of



concept or want to be noticed by the security community, and they get a job.

**Carl Franklin:** Right.

**Scott Hanselman:** You know, break into the bank to work for the bank. But to work for like Gator or one of those companies where you are literally evil -- I mean there's no other word for it.

**Carl Franklin:** No, there's isn't.

**Scott Hanselman:** Malevolence, it's just what price your soul. So, I had to go back down there and check my dad's machine out, and spent another hour fudging with it. So, what I ended up doing is, I took my dad's -- basically I took my Mac Mini down there and I gave it to my dad -- because he had never seen a Mac in his life -- I mean he'd seen them like, there at the mall, and I know that there's another kind of person out there called a Mac.

**Carl Franklin:** Right.

**Scott Hanselman:** It's like the first time I went to Synagogue; I was like, 15 and my friends are like, let's go to the Synagogue. And I am like, oh, okay, what's this hat? And then you realize that this is a whole universe of other people who go to church on a different day. And he is finding it really fascinating; it's like, there's a whole world of Mac people. What's this? Oh, that's the Doc thing. Why does it do this? Where is the Menu? Where is Alt F4? - All those kind of fun questions. It's like, he is a kid again.

**Carl Franklin:** Wow!

(00:14:42)

**Scott Hanselman:** So, he is running the Mac, but -- I love Macs, they're pretty, they're great for browsing and for mail. It just worked. And that's all he wants; browsing and mail. When it started falling down, was when I tried to do some drive sharing. You have to know the different -- you basically have to read the manual. You have to go make special URLs to attach to servers -- because Samba is the Linux Open Source kind of way of talk to SMB; Simple Message Block, basically what we think of as UNC paths. So, I took his old machine and turned it into a server, and then I have to go and make a URL SMB://servername/yourname.... It was fine once I got it working, but I don't know how he was expected to get Mac to interoperate with Windows. And I spent about two hours trying to get his printer working, and right now he is at the point where he has got his email, he can look at his files, everything is cool, but utterly and

completely unable to print. And I have absolutely no idea where to even start -- I mean, it recognized the printer, it connected to the network printer, it prints, and it says, "Hey, it worked" - and nothing comes out. All of it just got me frustrated that just computers are just too fricking hard. But back to the backup thing; what I ended up doing was just creating a cron job to backup all of his files to the server -- kind of made like, a little poor man's network. There're two people in the house so there're three computers; mom, dad and the server. And then we back it up again with [Mozy.com](http://Mozy.com). I got them their own account. They ended up with about three gigs of data. So, as long as you can get past the idea that the data is going to be encrypted and sent over to them, they encrypt it locally and they send it off but some people don't like to give up that control. But I like it, I think that [Mozy.com](http://Mozy.com) or services like it, are going to work out very nicely, and 50 bucks for unlimited - couldn't beat that price. What is your Backup Strategy anyway? What do you do?

**Carl Franklin:** My backup strategy is all secondary disks and external USB drives. I love the My Book 500 gig.

**Scott Hanselman:** Oh dude, the My Book; I've got My Books all over the place.

**Carl Franklin:** That's what I do; I plug them in, and it's all offline; it's not a problem - that's pretty much my sole backup strategy.

**Scott Hanselman:** You are going to love the Home Server - the Windows Home Server. We should do a whole show; I'm going to call those guys. I called them earlier to talk to Charlie Kindel, the PM for Windows Home Server. I think we have a lot to talk to, there's the beta program now and I think there were some invitations that went out, but basically you plug in as many and as oddly shaped and oddly sized external drives as you like and it just turns them into one big giant drive.

**Carl Franklin:** Wow!

**Scott Hanselman:** So, I just took all of my external drives, added some, 35 and a 75 and a 250, just a bunch of random ones that I'd forgotten about, plugged them all in, and then it does kind of a software RAID kind of a thing. It's not RAID proper, but they basically built their own custom file system on top of NTFS and I ended with like a 785 gigabyte RAID -- I wouldn't say RAID again, RAID isn't the right word for it, but a software duplication strategy, such that I can remove one of the drives and not lose the data. And then you can add as many as you want and



remove them whenever you want. You just have to warn it that you are going to remove something and then it will make sure that those files are sufficiently duplicated elsewhere. So, I've just been basically making arrays of these My Books, these Western Digital My Books, they are fantastic.

**Carl Franklin:** One of the biggest problems we have here of course is that we have a lot of data. We are producing five or six shows a week, sometimes seven and there's just a lot of data backing up here. So, we need to have archive as well as duplicate archive, and then take things off of our RAID. So, what I am looking into now, is a couple of NAS devices, a couple of Network Attached Storage devices. Do you have any of those?

**Scott Hanselman:** I looked at the Buffalo Technologies one. They've got a terabyte one that's basically four 250s, and it's running a little Linux box and it's got an HTTP server that you can go in and manage it. But I'm thinking that my Network Attached Storage situation is going to be the Home Server; I am absolutely enamored with this thing and convinced that it's going to change stuff. It's fantastic.

**Carl Franklin:** Well, this is at home; what about at work? I guess you don't have to deal with that stuff.

**Scott Hanselman:** Well, at work -- we are big company. we've got EMC and a SAN and all that kind of stuff.

**Carl Franklin:** Yeah, so you don't have to worry about it at work.

**Scott Hanselman:** Yeah, you could nuke the place and there's backup storage everywhere.

**Carl Franklin:** As a matter of fact, I think Greg was talking about that on RunAs Radio - the SAN stuff.

**Scott Hanselman:** Oh yeah, absolutely. He is the guy that manages all that stuff.

**Carl Franklin:** Yeah, big stuff. What about Apple TV? Have you seen this?

**Scott Hanselman:** Yeah, Omar is kind of my eye into that kind of that stuff - Omar Shahine. And the word on the street is that the quality is garbage.

(00:20:00)

**Carl Franklin:** Really!

**Scott Hanselman:** It's not that the Apple TV sucks, because it doesn't; it's just the quality of the content. So, I know this to be the fact, because remember, when I went to Tanzania in December, I loaded up my 80gig iPod video, which can do both NTSC, the US standard for TV, and PAL, the European and African standard, except for - in France, and then I took that with me to Tanzania and loaded up with movies and TV, because they don't have like, On Demand. They have satellite TV down there, but they didn't have On Demand. So, I basically brought my portable TiVo - which was my iPod, and most of the movies that I bought are 320x240, and they are really like of MPEGy, and they were okay on a 19" screen, but they were letter boxed of course. So, if I was going to blow that up -- imagine 320x240 or 640x480, plus highly compressed MPEG4, and stick it on a big 42" plasma, I'd be pretty disappointed as well.

**Carl Franklin:** It's funny that you should say that, because I just like five minutes ago was looking at this email that came from the iTunes podcasting team, and it came to PWOP, and it says basically that, "Please increase your videos that you're publishing on iTunes to 640x360." I'll read it right now, I swear to God. It came at 09:05 PM, which was just like half-an-hour ago. It says, "Greetings from the iTunes podcasting team. Apple TV is here, and podcasts are making a big move into the living room. We want all of them to look as good as possible. So, we have three video formatting recommendations for you. Also note that we have just posted a revised and expanded technical spec. Finally, the Apple Worldwide Developers Conference is coming up, blah, blah, blah." So it says, "Recommendations for formatting video podcasts: 1) if you're encoding your video podcast to 320x240, please increase the resolution to either 640x480 or 640x360 depending on the aspect ratio of your source files. Why? - Because video podcasts at this resolution look great on Apple TV, and still port to video iPods. Lower resolution podcasts might also work on both platforms, but they don't look nearly as good on a wide screen TV."

**Scott Hanselman:** Well, hang on. They port to, but don't they take up four times as muchspace?

**Carl Franklin:** Apparently.

**Scott Hanselman:** I don't know; they're not doing transcoding in iTunes.

**Carl Franklin:** No, port meaning...

**Scott Hanselman:** Meaning it'll look fun.



**Carl Franklin:** “As always, make sure to test any encoding changes, blah, blah, blah. So, 2) it’s best not to create two different podcast feeds for different resolutions; by doing so, you dilute the popularity of your podcasts and reduce exposure in our charts. It’s better to have one feed high in the charts than two that are lower.

**Scott Hanselman:** That’s very interesting, because PWOP is known for giving the listener choice.

**Carl Franklin:** Yes, but when we go to iTunes, we only do MP3 - and it’s interesting that we don’t have the AAC in iTunes.

**Scott Hanselman:** Right, why is that, because I’ve always wanted to add like all the advanced AAC bookmarking and pictures and stuff to the show.

**Carl Franklin:** But bookmarking works on iPods now without AAC.

**Scott Hanselman:** Oh, really!

**Carl Franklin:** The only reason we ever did AAC was because somebody wanted the bookmark feature, and iPods do it with MP3s now.

**Scott Hanselman:** How do we get our Hanselminutes logo on the iPod? I’ve been trying to figure that out.

**Carl Franklin:** It should be there; I mean, it’s all in the feed. We have the iPod graphic in the feed, the iTunes graphic in the feed. It’s a 300x300 graphic.

**Scott Hanselman:** Because right now in iTunes - we don’t have a lot of iTunes listeners, but in iTunes right now, when I download it into my iPod, the graphics are in iTunes, but they are not on the actual iPod while it’s playing. You don’t get the album art at all.

**Carl Franklin:** I don’t know if I’ve ever seen that with any podcasts that I run.

**Scott Hanselman:** Well, that’s because I believe there’s an AAC editor that embeds that Metadata within the AAC, and you basically get the album art, like Merlin Mann Show has that, and then you can setup these little trigger events, like you could in Windows Media Player a few years back, where, like I know that the Ricky Gervais podcast did this, where – that he hit a certain point in the show, and then he would actually bring up a graphic. So, it’s almost like a presentation where you could say, oh yeah, take a look at this picture, and then click, the picture shows up.

**Carl Franklin:** Yup, and you can do that with WMV files as well. The problem that I had with that is, I haven’t found an automatable solution to it.

**Scott Hanselman:** No, it’s all manual; you’re absolutely right.

**Carl Franklin:** We’re all about automation; we’re putting out all these shows, and I don’t want to have somebody manually doing that.

**Scott Hanselman:** We don’t want to waste anybody’s time. Whoever we’re talking to right now is listening to this on a train, or on their commute, in double time, and we don’t want them looking down at a picture, and then crashing, and then coming to my house and telling me that Hanselminutes killed their spouse.

**Carl Franklin:** That’s right.

**Scott Hanselman:** That’s probably a good place to stop right there.

**Carl Franklin:** Yeah, that is a pretty good place to stop. It was fun just talking to you about some stuff that we needed to catch up on, and I am sure everybody listens and liked it as well.

**Scott Hanselman:** This is show 59, and I think that having it be the third Minutiae show, I think that’s a pretty good ratio of content to Minutiae. So, hopefully people didn’t think the show sucked.

**Carl Franklin:** Awesome. All right Scott thanks for hanging out with us. We’ll see you next week on Hanselminutes.