

Want to know what it's like to write a book?

So did I. But nobody ever gave me a manual, so I had to always wing it.

Actually, I've been either an author or co-author of a number of technical books so far in my life, and I'm grateful for the experience. But I've noticed that new authors always seem to get thrown into the mix without truly realizing the commitment that it takes to finish the work. This can lead to disastrous consequences, and, unfortunately, I've been witness to two de-railings so far.

The first one was a Pocket PC book that I was supposed to write with two other authors for Apress. Contracts were signed, and we said we'd get done in April of 2001. I had 5 chapters to write, and I got them done on time. Unfortunately, the other authors did very little work. To be blunt, one author didn't do anything. Sadly, the book never made it to market, and I wasn't happy about that as I had put a lot of time into talking about eMbedded Visual Basic 3.0 and how you could be effective with that tool.

The other one was the .NET security book I was a part of. Fortunately, that book will make it to market, but it almost got lost in the shuffle. Originally, I was going to write the book with another author, but the same thing happened. He would never turn anything in, but I tried to give him the benefit of the doubt and I strung him along. That was a mistake. He eventually turned in a couple pages of work, but by that time, Apress and I had to cut our losses and come up with another strategy. Fortunately, Paul, Tom and Nathan were able to contribute, but I would've never taken that road of adventure on purpose.

As I started to prepare myself to write the CIL book, I was getting a little annoyed by these turns of events. Why would people sign a contract only to never do any work? Where were the ethics? Where was the commitment? Then I noticed that Jeff Prosise was keeping an online blog of his book in progress, and I was hooked. I thought it was a great idea as it gave insight into the writing process and how it affects both your personal and professional life. So I decided to do the same thing, but I didn't make it "real-time". I kept the diary private until I finally had the book physically in my hands.

Now that the book is finally finished, I've uploaded it on my web site for the world to see. I hope it's beneficial for the reader who's thinking about writing a book themselves. Maybe you'll find some insight on how to write a book (or how **not** to do it!). But above anything, I wanted to be as honest as I could be with the entries, so long as I felt the entries related to the book. However, it's inevitable that one's personal and professional lives intermingle, so you're going to read about some rather private matters about what happened in my life as I wrote the book. The main struggle I had to deal with is the death of my Dad, Ronald Bock, who died just two weeks after I started to write the first chapter. It wasn't unexpected – he has been battling cancer for four years – but it was something that adversely affected my emotional state. But writing a book doesn't shelter you from the world and the events that unfold in it. I had a commitment to Apress, and I

had every intention of keeping it. At times, though, it wasn't easy, and that shows in some of the entries.

By the way, parts of the diary may seem odd. For example, the title of the book changed a couple of times, and I also talk about other sections of the book that never made it. Also, my primary goal was to get my thoughts out of my head without a lot of care to being grammatically correct. So if the wordings seem a little weird or out of place, I apologize in advance.

If you'd like to talk to me about the writing experience further, feel free to contact me by e-mailing me at jason@jasonbock.net. Whether you're a new writer who's considering signing a contract with a publisher, or you're a seasoned author who has some war stories to trade, I'd love to hear from you.

Regards,

Jason Bock

11.19.2001, 1:00 AM (3 hours, Chp. 2 – 2 ½ pages)

I finally got around to starting the book. I went through my “Programming in CIL” directory, created all the sub-chapter folders, and moved my dynamic proxy code into chapter 8’s folder.

I started working on Chapter 2. I got about 2 ½ pages done tonight. There’s so much information in the Partition docs – I think it’s going to be hard making sure I get enough information across to the reader. I also have to remember to not make this a book on .NET compilation – that’s already been done by Gough’s book. This is a book purely on CIL syntax for assembly generation, not on compilers.

I hope to get more done during Thanksgiving break. I’m bringing my laptop down to my parents as I hope to work on this chapter and the “Role-Access Security” chapter for the .NET security book. However, with my dad in the shape that he’s in, it’ll be a hard visit. Then again, I’m also thinking I might have a fair amount of quiet time as well, and I might as well use it. I have so much to get done so I want to use whatever time I can find to write.

11.20.2001, 12:57 AM (1 ½ hours, Chp. 2 – 4 pages)

Kind of a bum day. I wrote about 1 ½ pages – a fair amount of time was spent looking stuff up that I didn’t know about before (like where the hell is the signature stored when you strong-name your assembly? Oh, the Strong Name Signature section of the CLR Header – of course!). I’m learning so much more than what I did when I put together the dynamic proxies prototype – it’s so much fun, but frustrating as well. I wish I could afford to do this full-time.

I also found out that a MS guy is writing a book on CIL – target release date for his book is earlier than mine. Damn! Gough already released his book, although his is more focused on compilers for .NET, whereas I’m trying to treat ilasm/CIL as just another .NET language. Should be interesting in any event.

Brent Rector’s WiseOwl company just released their Demeanor for .NET obfuscator for assemblies. Odd thing is that I couldn’t find any download or purchase links on the site (is it free? what does it cost?) Given Rector’s reputation, though, I’ll wait until they get the links up on the site; I’m very interesting in seeing what they did. Well, they already said on the site what they did; I should say I’m interested in test-driving it.

I’m taking Wed. off as Liz and I are going to drive down to WI to visit my family. We’re planning on just being with my Dad, although we might try to see some of her family when we drive back up to MN. I plan on getting home from work tomorrow, eat dinner, watch a couple of shows on TV, and buckle down for the rest of the night on Chapter 2. I want to focus on my Role-Access Security chapter in WI, so whatever I can get done on ilasm directives tomorrow will be extremely beneficial. We don’t leave for WI until about 5:00 PM on Wed., so I’ll have a fair amount of time to get stuff done as well, although I need to pack (yeah, for me that takes 30 minutes – I’m a guy!) and I want to

work out as well. Hell, even getting one or two hours in on Wed. before I go would help as well.

11.21.2001, 12:33 AM (2 hours, Chp. 2 – 8 pages)

I don't feel like I got a lot done tonight, but the structure of the chapter is starting to come together. Now I just have to fill in the blanks ;). I feel at times like I'm just regurgitating the Partition docs, but I have to keep in mind the book is targeted to be a layer above the docs. I need to give the essential details to give the reader insight on how CIL works, not to overwhelm them with gory details. The book should move towards dynamic type generation; talking about header details isn't needed. Type layouts are interesting – `explicit` and `.pack` are cool. And even though `.namespace` shows up in ILDasm dumps, it's not a true `ilasm` directive. Pretty interesting!

I want to go longer, but I'm tired. I'm going to try and get up early tomorrow and get two hours of writing in. It's been hard to focus lately– I get distracted when I write. I also don't feel in the best shape of my life. I work out normally (3 times a week), but I feel heavier. I'm definitely hitting the gym tomorrow – given the fact that I won't be able to work out until Monday the workout will be intense.

It seems like Dream Theater is becoming the choice of music for this book. Harder, more progressive metal music gets me going when I have to keep on forging ahead.

11.22.2001, 11:36 AM (2 hours, Chp. 2 – 10 pages)

I spent a lot of time figuring out just how type visibility and accessibility works. It took a while, but I finally got it, and it's actually pretty easy. I plan on making a UML diagram illustrating how these rules work – I think that'll help the reader understand.

I have a lot to do before I leave tonight, so I have to get going.

12.02.2001, 5:30 PM (2 ½ hours, Chp. 2 – 12 pages)

This was the first time I tried to get something done since I got back from my Mom's house. I didn't get any writing done over Thanksgiving due to my Dad's death, and when Liz and I got back on Thursday night we had a ton of stuff to catch up (e.g. laundry) so that's taken up my time for a while. Plus I just didn't feel like writing a lot either, but I have to get back into the swing of things.

I spent some time on field definitions and then I went back and started on some of the diagrams. This was a good way to get back into the swing of things. I plan on spending a lot of time tomorrow on the chapter along with the .NET security book. I almost forgot that I have a .NET security-based presentation to give this Thursday at the MS office in the Twin Cities. I'd like to back out of it, but I don't want to drop it on someone else's shoulders at Magenic either.

12.03.2001, 6:22 PM (2 hours, Chp. 2 – 15 pages)

I got some work done on method definitions. I learned a lot of cool things today, like the fact that you can change the type that is passed into an instance method with the explicit attribute. Tomorrow night the Packers are on, so any writing progress will be limited!

12.03.2001, 11:55 PM (1 ½ hours, Chp. 2 – 17 pages)

More work on methods – more specifically on type initializers and calling conventions. I have a feeling I'll have to go back and clean up the stuff on conventions, but I'll leave it for now. I have to do method overriding next and that's going to be interesting to do in a small amount of space. I'm glad I'm getting near 20 pages – that's always a good target for me to hit for a chapter. Anything less than that seems too small (although Gunnerson's book has lots of small chapters – to each his/her own). I fear that the dynamic proxies chapter is going to be too long, but if it needs to be then so be it.

12.04.2001, 12:37 AM (2 hours, Chp. 2 – 18 pages)

Writing was sporadic tonight, but at least the Packers won to make it worthwhile. More method stuff. I was surprised to find little on `.maxstack` at first glance. It's easy to define, but if you don't add it...how is the stack height calculated? And by what? `ilasm`? A C# compiler? Gough's book talks about it in more detail, so that'll help.

I was also surprised to find out that local variables are not limited to the top of the method body. You can make nested local variable declarations, at least Gough's book claims you can. Well, shut my mouth – I thought you couldn't. Guess I needed to read Section 14.5.1.3 of Partition II harder – specifically, the “Implementation Specific” section.

I'm getting into a bind. I have to get a chapter and my only appendix for the security book done by the end of the month. But I have to get three chapters for this book done by Jan. 15th! Argh! I think Gary will understand that once the security book is under wraps this will be more of my focus. I just don't like missing deadlines. Time to start cranking.

12.05.2001, 12:26 AM (2 hours, Chp. 2 – 20 pages)

Started on the properties section. I also cleaned up some TODO sections, the biggest being the one that defines how you declare a custom attribute with a byte array. Sheesh, does that bite doing it by hand! Hey, that's what higher-level languages are for. I'm also leaning towards the feeling that `.maxstack` is just a hint for the eventual native compiler as to how much stack space you'll need. If you don't include it, it's defaulted to eight, even if I do a ton of `ldloc` CIL calls. But I wish I could confirm this with some MS docs. I think I'll need to do a DOTNET LISTSERV post tomorrow and see what the masses say.

There's more work to be done, and I have to spend time reviewing my presentation for Thursday, but I might be able to get this wrapped up by the end of the week. That would

be very cool, as I could jump on the “Role-Access Security” chapter and bang that out for a week or two.

12.06.2001, 12:12 AM (1/2 hour, Chp. 2 – 21 pages)

Finished the `.namespace` and `.maxstack` discussions. No, `.maxstack` is not a hint – you have to get it right or the runtime throws an exception. Yikes!

I really don’t have that much left to do. I basically have to talk about events/delegates and how methods are overridden. Both of those sections are fairly complex, though, and I have a section left to show code examples, but I think I can get this chapter finished by Sunday.

12.07.2001, 1:13 AM (1 ½ hour, Chp. 2 – 23 pages)

Finished the `.module` and `.file/.mresource` discussions, but I’m not really happy with the results. I’ll probably have to go back and modify them. I’m still hoping for a Sunday finish.

12.08.2001, 6:00 PM (1 hour, Chp. 2 – 24 pages)

Started on the `.override` section. The rules aren’t as hard to explain as I first thought – trying to keep that Sunday goal on target.

12.09.2001, 1:20 PM (1 hour, Chp. 2 – 26 pages)

Finished the `.override` section and modified parts of others. Wow, did that (the `.override` section) really clarify a lot of concepts for me. That’s one great thing about writing books – you’re usually forced to dig deeper than what you originally expected to.

12.10.2001, 1:43 AM (4 hours, Chp. 2 – 33 pages)

I’m almost done with the chapter. But I need to get some sleep before I review it and submit it. I’m pretty happy with it, but I know it needs some fine-tuning, and I still have some tables and diagrams to make. But the structure is finally finished.

The delegates and event section was fun. Now I know how they work, and it’s cool. Of course, I’m wondering how the runtime attribute works – more to the point, can I hook into it? I doubt it, but that would make for a great addition to my dynamic proxies chapter.

Once I get this turned in, it’s .NET security for a while. I loved being stressed out - whee.

I watched “Final Fantasy” and “Startup.com” this weekend. “Final Fantasy” was very cool from a visual standpoint, but the plot really sucked. “Startup.com” was interesting. I’m so glad I never worked for a dot-com. All that work for nothing.

Oh, and the Packers beat “da Bears” today. Whoo, hoo!

12.11.2001, 11:39 PM (2 ½ hours, Chp. 2 – 35 pages)

Finally – Chapter 2 is done! I had to clean up method overrides section, but once I grasped what a method signature really is, it became clear. I was unintentionally relating method overriding to method overloading, which is not a good thing. All I need to do is zip it up along with its corresponding files and send ‘em to Gary.

I’d like to think that I’ll be able to focus exclusively on role-access and ASP.NET security for the rest of the month, but I’m going to try to start fleshing out the details of Chapter 3. That should be a lot of fun.

12.31.2001, 11:39 PM (1 hour, Chp. 3 – 2 pages)

Wow, I’ve been away from this book for 20 days. That’s not good! A lot of issues came up with the .NET security book – fortunately, things seem back on track, but it was pretty hairy there for a while. I finally got my last chapter done, and while I know I’ll have to do a lot of work in the reviewing stage, I’m glad I’m done...more or less. I have an appendix to do, but that should be easy.

I was pretty lazy today, but I put together a basic outline for Chapter 3. I also got some initial work done on loading local variables (boring, but it’s the basics). I plan on spending a **lot** of time tomorrow on this chapter.

1.1.2002, 1:08 AM (4 hours, Chp. 3 – 10 pages)

I wrote on and off today. It’s not going bad – part of me hopes that I can wrap up this up in a week. Something tells me, though, that I’m not explaining things precisely enough and/or I’m just kind of being too simplistic with the material. Vacation has been nice, but I’ve also been way too lazy with writing as well. I think I really glossed over the execution stack – it’s an easy concept once you understand that it’s easy because it supports a very limited number of types. I might need to show more stack examples.

I finished up the basic load-and-store opcodes, along with the arithmetic opcodes. That’s the easy stuff, though – I haven’t even touched on code flow opcodes, and there are a ton of them. Don’t know how easy or hard it’ll be to get through those cleanly enough without taking a lot of unnecessary pages up either.

1.3.2002, 11:23 PM (2 hours, Chp. 3 – 15 pages)

I felt like crap last night – I got a high fever so I did nothing but have a terrible night’s sleep. I stayed home today, but I didn’t feel like doing anything until later in the afternoon. Finally, around 8:00 I started to do some writing.

I decided to add a section at the beginning of the chapter on describing the execution stack, as I realized that it’s important to go over that right away. I didn’t finish it, but I know it’s needed. I finished up on the basic opcodes and I started working on the object-related ones. Hopefully, if all goes well I’ll have this done by Sunday (but that might be pushing it).

On a somewhat related matter, I saw that someone put a new rating for my VB6 Win32 API book (people are still buying it?). The person said that I had the technical parts down, but I was extremely boring. What the hell, I'm supposed to entertain the reader? I thought I went overboard trying to be witty in that book! Oh well – can't please everyone. I hope he doesn't buy this book – it may put him in a coma.

1.5.2002, 11:51 AM (1 hour, Chp. 3 – 16 pages)

I started working on method invocation opcodes – just finished the callvirt section. There's a lot to cover and I think finishing by Sunday may be pushing it.

I watched "The Fast and the Furious" last night. Wow, what a crappy movie.

1.7.2002, 12:28 AM (2 ½ hours, Chp. 3 – 19 pages)

Well, Sunday came and went, and I'm nowhere near done! Oh, well – I thought I was being optimistic. I got the method calling section done along with boxing and unboxing. I held off on branch instructions just because there are so many – that'll be a nice hurdle to finish.

Getting the method section done opens up a lot of doors from now on, because I can just put a code snippet in with:

```
call valuetype [mscorlib]System.Guid [mscorlib]System.Guid::NewGuid()
```

and I can assume the reader can figure it out.

Having the Packers was a nice touch, although the Bears just **had** to win against the Jaguars. Oh, well, if the Pack can beat the 49ers next week, they'll meet them in Chicago, and I think they have their number this year. But beating any of the teams in the playoffs will not be easy. At least they got there!

1.7.2002, 8:24 PM (0 hours, Chp. 3 – 19 pages)

I haven't started writing yet, but I have to admit that I had some very weird dreams last night. I was writing about the CIL opcodes, and more opcodes kept on appearing. So I had to learn more and write more and learn more and...uh...well, I didn't sleep very well.

Must've been the Sudafed I took before I went to bed (still battling a cold).

1.7.2002, 11:51 PM (2 hours, Chp. 3 – 23 pages)

I got the branch instruction section done. Lots of fun – learning how switch works was cool, and it was also interesting to see how the C# compiler optimized switch when the jump table could get very large.

Hopefully tomorrow and especially Wed. night can be big “push” nights to get this chapter done. I got to get myself going on this (I also have some time tomorrow morning to write as I have a doctor’s appointment at 10:00).

1.8.2002, 9:26 AM (½ hour, Chp. 3 – 23 pages)

Not much writing done, but I worked on a sample app for the exception section, so now I just have to write on it. That’ll save me some time tonight – I should be able to finish up the exception section today.

1.9.2002, 12:39 AM (2 ½ hours, Chp. 3 – 28 pages)

Lots of info is now in the exception handling section; I still need to cover filter blocks and handlers. In fact, it’s getting to the point where I’m thinking about restructuring the book’s chapters. I still have a fair amount to do in Chapter 3, and if I try to “wrap it up” by finishing the RIG assembly, I think I’ll make the chapter huge. Therefore, I’m debating making Chapter 4 a discussion on making an assembly in CIL and ilasm to tie up Chapter 2 and 3. I currently have a Chapter 4, “Beyond the Basics,” but I realized I covered those issues in Chapters 2 and 3! So I could rename Chapter 4 to “ilasm and CIL In Practice”. That would make Chapter 2 30 pages, Chapter 3 probably around 35 to 40, and Chapter 4 around 25-35 pages.

I kind of like this, but it also feels a bit weird as well (having a whole chapter on one example?), so I’m going to sleep on it and see what I feel like later. I may ask some Magenic folks and see what they think. This would be nice because I could turn in three chapters by Jan. 15th and be on schedule from a contract perspective. Sneaky, but I wouldn’t do it just to be sneaky. I think it needs to be done – it just feels too overloaded in the first two chapters.

1.9.2002, 10:08 PM (½ hour)

I spent a little time at work today between down times looking at debugging assemblies built with CIL files. Wow, was I impressed with what dbgclr.exe can do. What I was able to do in a half-hour got me more than set up for the debugging chapter.

I’m also going to modify the outline per the plan in my last entry. I think it makes sense.

1.9.2002, 10:08 PM (2 ½ hours, Chp. 2 – 30 pages, Chp. 3, 30 pages, Chp. 4 – 5 pages)

I finished the exception handling section. My god, did filtering suck! The Partition docs are thin on the examples, and Gough’s book didn’t help out much. Once I figured it out, it made sense, but it took a good hour to do it.

I also set up the new structure. I’ll take time to clean up Chp. 4, but I think I can get these done by mid. Jan. I still have a fair amount to do in Chp. 3 – I’m hoping I can get most of it done tomorrow night and finish Chp. 4 this weekend.

1.11.2002, 12:41 AM (2 hours, Chp. 3, 33 pages)

I finished up method pointers (that took some time) and some extraneous opcodes I missed before (e.g. `ldlen`). I have two main sections – the “advanced” (I’ll probably re-name that to “Opcode Miscellanea”) and the stack description. Once I make all the code samples coherent, I’m done. I hope I can wrap this chapter up on the way down to Chicago (it’ll be interesting to see what writing will be like in a car), and also finish Chapter 4 (the code sample works in C#, so at least I can use that as a baseline).

I’m really shooting for Sunday to get 2, 3, and 4 done. Then I have to switch gears and clean up some .NET security stuff by the 15th. Then I’m right back into this while I’m in the reviewing stage.

1.14.2002, 12:41 AM (2 ½ hours, Chp. 3, 36 pages)

I tried to write going down to Chicago, and I got a little bit done on how the execution stack stores types, but that’s about it. It was just too hard to write in a car with the sun’s glare, so I gave up and read “Blondie24” by Daniel Fogel. A great read on how he created a checkers program via evolutionary techniques.

Anyway, I’m almost done with Chapter 3. I finished up the variable arguments discussion along with `tail`. and `jmp` comments. I only have the `.maxstack` discussion left. I wish I could’ve got more done today, but I got in a really bad emotional state last night. Given what’s happened in my life the last two or three months, I seem to be a lot more sensitive when simple things go wrong (e.g. the portable phone isn’t working, but that’s no reason to get extremely bummed). Basically, I got really depressed from Sat. night to Sun. afternoon – even a Packer win didn’t help. I felt bad for Liz – she didn’t know how to help. I eventually talked to her and I felt better, but I need to learn to not cloud over some of the issues that I’ve been dealing with.

1.15.2002, 12:48 AM (2 hours, Chp. 3, 38 pages)

Chapter 3 is done! It’s being shipped via e-mail as I type. I put all of the code samples together and gave the chapter a quick review (although it was quicker than I usually do). I added a section at the beginning on opcode structure to describe the byte size differences and how the opcodes can alter the stack members. I think it helps in understanding the differences between the short and efficient opcode variants that you run into, although I don’t know if I made that explicit enough in the section. Oh well...something for the review period.

I want to jump into Chp. 4 and also Chp. 5 – I feel I’m getting into a groove. But that .NET security book just won’t go away! Thursday is the deadline for the other authors, and then a lot of reviews take place. That has to take priority, but I want to continue to work on this as well. Oh, and now that I have my Xbox (along with Halo and Nascar) I have something else to distract and tempt me. But it’s soooooo much fun!

1.16.2002, 12:17 AM (0 hours)

OK, I really didn't do much tonight for a number of reasons. Truth be told, the Xbox called me with its siren song to run some Nascar races. I stopped by Best Buy after work – they didn't have any of the racing wheel controllers. Grrr...that's going to make an improved difference for my hands.

I thought about where I need to go with the chapters. Chapter 4 should be pretty easy – I **know** it can work, I just have to document it. Chapter 5 on debugging will be interesting – easy in some parts, difficult in others. Chapter 6 should be a lot of fun comparing C#, VB.NET and CIL. Chapter 7 and 8 will also be interesting, and Chapter 1, while important to set the tone, isn't overly technical. I think I'll do them in this order: 4, 5, 7, 8, 6, and 1. That makes sense to me. Get 4 done in a week, get 5, 7, and 8 done by Feb., and 6 and 1 by the deadline. That's a **lot** of work, but feasible.

Apress is so cool. Gary knows about the problems with my other book and my personal life, and he knows I'm trying to hit deadlines. I'm a chapter short, but I'm going to work my ass off to get the book done by mid-March.

By the way, .NET was officially RTM today. What a milestone. I make no apologies when I say that .NET is cool. Very cool. Not perfect, but cool. I have really no desire to use Java or any Java-related technologies anymore. It's not that they're bad, but I think .NET has the potential to be so much better (if it isn't already).

OK, time for bed. Get focus tomorrow on Chapter 4. And I repeat to myself: I must ignore the Xbox, I must ignore the Xbox...

1.18.2002, 12:17 AM (1 ½ hours, Chp. 4, 6 pages, Chp. 5, 1 page)

I sketched out how Chapter 5 should flow, and I started working on Chapter 4, figuring out how it should go and altering the material from Chapter 2 so it flows better. I'll have a ton of free time on Sat. to work on Chapter 4 – I really want to push getting this done by Sunday. I have the feeling that my time will be quickly eaten up by .NET security chapter reviews and edits, so I have to get this chapter cranked out ASAP.

1.19.2002, 12:14 AM (1 ½ hours, Chp. 4, 8 pages)

I still have a bit more to do before I retire for tonight, but an interesting thing just happened. The power flickered for a second or two, causing my computer to reboot. Fortunately, I do Alt+F+S or a similar derivative (e.g. in VS.NET Ctrl+Shift+s) a lot no matter what program I'm in, so I didn't lose anything in Word (yes, I know it uses backup files, but I still put the trust in myself). I started picking up shortcuts during the time VB5 was released. It was a cool release, but it wasn't particularly stable, so I started to learn how to save frequently and often. I can't point to specific instances, but I know it's a technique that's paid off over the years (tonight included).

Man, does Xbox rock! I just got “Project Gotham Racing” tonight to complete the bonus package from Magenic. Wow, are the graphics incredible. Sometimes, during the playbacks, it looks waaaaay too real.

1.19.2002, 12:45 AM (½ hour, Chp. 4, 9 pages)

Continued working on the RIG assembly. I have the entire weekend to get this chapter done; if I can’t then there’s something wrong with me (knock on wood).

I found an interesting piece of information when you use string constants. Basically, C#’s compiler doesn’t do `ldsfld`; it calls `ldstr`. I think it’s basically making an optimization because it knows that string is interned via the string constant, so it’s quicker to refer to the string that’s in memory (somewhere) rather than finding out where a field is, and then loading its’ contents. I have to confirm this in the morning via `dbgclr.exe` and other means, but so far this makes sense to me.

1.19.2002, 12:18 PM (½ hour, Chp. 4, 10 pages)

Off-and-on writing today. Just finished talking about the `Max` and `Min` properties along with how `Generate()` is implemented.

1.19.2002, 12:56 PM (½ hour, Chp. 4, 12 pages)

Finished the other `Generate...()` methods.

1.19.2002, 3:15 PM (½ hour, Chp. 4, 12 pages)

Did a quick test with `RIG.dll`, and I found some errors with the event code. Seems like I the methods wanted the delegate field to be instance level, but the CIL was treating it like a static. D’OH! Lots of `InvalidProgramExceptions` were occurring because I didn’t have the `this` parameter on the stack. Grrr...they’re all fixed now, so all that’s left is to go over the UI test harness.

1.19.2002, 8:52 PM (2 hours, Chp. 4, 12 pages)

Set up the UI test harness. Man, is writing CIL code for a simple UI tedious as hell. The `Generate` button click code is wrong, but the other two methods work. Also, there seems to be some need for `.ver` in some of the core assemblies – I can’t get the EXE to load otherwise. Time to play some PGR (Project Gotham Racing) for a bit to clear my mind.

1.19.2002, 10:55 PM (1 hour, Chp. 4, 14 pages)

Fixed all of the UI bugs, and started writing about the UI implementation. What an illustration of why IDEs for UIs are essential – this is really tedious!

1.20.2002, 1:05 AM (1 hour, Chp. 4, 15 pages)

More of the same from last time. I have to get this done tomorrow, though – there’s no excuse for not having this chapter done by tomorrow.

1.20.2002, 2:11 PM (2 hours, Chp. 3, 38 pages, Chp. 4, 21 pages)

Chapter 4 is done – I just need to review it and then send it over to Apress. I forgot to talk about `ldelema` in Chapter 3 so I added it – it's necessary when you call `ToString()` on an `int32` element.

1.20.2002, 2:50 PM (0 hours)

Of course, the Packers are playing the Rams soon, so the review will be delayed for a while ☺.

1.20.2002, 11:39 PM (½ hour, Chp. 3, 38 pages, Chp. 4, 21 pages)

Watching the Pack was a waste of time today. 45-17 or something like that. They pretty much killed themselves – I think they had three turnovers for 21 points. That makes a huge difference.

I shipped Chapter 4 and the revised Chapter 3 to Apress tonight. That means I'm only 5 days off of the original schedule. Wahoo! The next chapter on debugging should be interesting.

1.21.2002, 12:20 AM (1 hour, Chp. 5, 3 pages)

Started working on the debugging chapter. I'm getting tired and my mind is wandering, so I didn't get into any gory details – just set up the scenario when you're going to need a debugger.

1.22.2002, 12:08 AM (2 hours, Chp. 5, 6 pages)

Started working on how `cordbg` works. Man, I hate command-line tools! I'll continue on tomorrow with showing why my `BadConsole` example fails by watching the native instructions along with the register values, but I find it quite annoying to use `cordbg`. Can't wait until I get this section finished; I'll try to stay as objective as I can. I mean, it's fun seeing what's going at this level, but doing it with `cordbg` is just painful.

1.23.2002, 12:10 AM (1 ½ hours, Chp. 5, 9 pages)

Continued on the `cordbg` discussion. I'm getting near the end, but I've worked my way into an x86 discussion, and I need to get out. I'm trying to show how a `cmp` x86 opcode causes a `NullPointerException`, but I don't want to dive into x86's guts more than I have to. Hopefully I can get out of this section soon so I can leave the cold world of command-line tools and move on to nice, friendly GUI tools. Mmmmmmm...gooey...

I just got my "Tron" 20th anniversary DVD. I watched the "Making Of" – very interesting. I had no idea they shot a lot of the movie in basically black-and-white and colored everything in later. They also showed where the artists added a Pac-Man in one of the backgrounds of the movie – it's hard to see, but it's there!

1.24.2002, 12:53 AM (2 hours, Chp. 5, 15 pages)

Finished cordbg and most of the dbgclr discussion. I don't know if dbgclr was fixed in the final RTM, but its flaky behavior with saving solutions is annoying at best.

I found a site that changes any text-based web site into a "porno" site: <http://www.pornolize.com>. Yes, it's juvenile and it may offend someone, but some of the sites I morphed led to some pretty funny results. And I needed a good laugh tonight – work is not going well right now. I'm bored out of my mind. I desperately need a change – I feel like I'm wasting time and life's too short to do that.

1.24.2002, 10:30 PM (4 hours, Chp. 5, 22 pages)

Man, I'm shot. I got most of the reverse-engineering section done, and I just finished the PEVerify discussion. I really want to get done with this, but I have to take a serious break. As it was said in that old Monty Python skit: "My brain hurts!" I love it, but I need to just race virtual cars for a while.

1.25.2002, 12:06 AM (½ hour, Chp. 5, 22 pages)

I just can't focus anymore. I did a minor formatting change, but that's it. I'm going to do my damndest to get this chapter done by tomorrow. I only have 2 or 3 more sections to finish and I'm going to crank out one more chapter for the .NET security book this weekend so I want to get this done by tomorrow. That's doable, but it'll be interesting...

1.25.2002, 10:35 PM (3 hours, Chp. 5, 27 pages)

Got a lot done on in-proc debugging and setting registry values to control the default debugger. I have just a couple of loose ends to tie up tomorrow...I think. I need to clarify the section on strong names and how that works in with reverse-engineering techniques. Don't know how long that will take.

1.26.2002, 1:29 AM (1 hour, Chp. 5, 28 pages)

Chapter 5 is done! I didn't ship it yet – I want to get some sleep and go over it tomorrow morning with a cup of coffee. But everything seems good right now.

1.26.2002, 1:29 PM (2 hours, Chp. 5, 30 pages, Chp. 7, 2 pages)

Shipped Chapter 5 earlier today. I started working on Chapter 7 – I'm actually trying to get an example worked out before I use it in the book. I'd rather not spend time thinking that the idea will work before I write about it in the chapter and then I find out I can't do it.

1.27.2002, 2:28 PM (2 hours, Chp. 7, 2 pages)

Well, I think I can get the example I have in mind done, but I don't think it fits for Chapter 7. I want to give an example that doesn't get in the way of the concepts – this is

the first time the reader will see the Emitter classes, and I don't need to get tied up in complex issues. It's good article material for the future, though, and that's a good thing.

1.28.2002, 12:24 AM (3 hours, Chp. 7, 7 pages)

Worked on the basic Emitter functionality. I'll start with method implementations tomorrow.

I'd like to keep going, but I have to jump to the .NET security book. I have to make sure the first three chapters are up to snuff, and then send them to Gary to start the official review process. That shouldn't take too long as I've already done that, but the first chapter needs some touch-ups.

1.28.2002, 11:32 PM (3 hours, Chp. 7, 8 pages)

Not much done in the writing department, but spent a lot of time getting the DynamicCustomer example finished. Lots of silly bugs to track down (e.g. forgetting to push the Me value onto the stack to load and store fields. Duh!) but I finally got it working.

Now I'm tracing down just how the OpCode structure and the OpCodes type work together. That's always bothered me, primarily because I was mistaking OpCodes for being an enumeration, which it isn't. I'm taking a short break, but this is a fun investigation.

1.29.2002, 12:41 AM (1 hour, Chp. 7, 10 pages)

Finished the OpCode/OpCodes discussion. I stopped at talking about the different ways to invoke a method – I'll pick that up...later today.

Wow – I just looked back and I realized I've been doing this for over 2 months. There's a lot that I've done, but this is no time to reminisce. Gotta keep on digging hard. Getting Chapters 7 and 8 will be the final hills to get over; 6 and 1 will be the downhill stretch (I hope!).

I'm probably going to spend some time tomorrow and Wed. getting Chapters 4, 5, and 6 refined for .NET Security. I'm going to write Chapter 9 for it as well; it sucks, but I want that material in there and I couldn't wait for the original co-author to finish. I have to keep reminding me there is an end in sight – just keep pushing hard, and then I can finally relax for a (little) while.

1.29.2002, 11:09 PM (3 hours, Chp. 7, 13 pages)

I'm slowly working my way through transient and persistent assemblies and modules. I'm still not sure I get what the difference is between Save and RunAndSave. The SDK feels very light on this issue, and any current articles or books don't really get into it either. I'll get it...eventually.

This chapter feels like it's going slower than I wanted it to. The SDK is pretty light at points, and I've had to dive in more than I expected. But that's a good sign in a way, as it's (hopefully) a good sign that the book will have something of worth to provide.

I finally started playing Halo. Wow. That's all I can say. Wow. There's no points to rack up as you kill aliens – it's just kill or be killed on a world where the graphics are unbelievable. Liz just watched me play – she said it's almost like watching a dynamic action movie. I can already feel the addiction set in.

1.30.2002, 12:08 PM (½ hour, Chp. 7, 13 pages)

After running some tests, I've concluded that Save doesn't prevent you from running dynamic code. So I'm punting in the chapter for now. I **hate** to do that – I feel like I'm giving up. But the SDK says it's code that can be saved, but not run; I have examples that prove the contrary. Either I don't get what the docs mean, or they're wrong. And I'm getting tired, so I think I need to sleep on it.

1.30.2002, 12:30 PM (½ hour, Chp. 7, 13 pages)

I'm going to bed. I can't see the distinction between these three values, so I posted a message to Wintellect's forum – hopefully, someone will respond with helpful information.

1.30.2002, 9:30 PM (3 hours, Chp. 7, 14 pages)

Well, I think I've hit a snag. I think I've finally resolved all of the issues with the assembly persistence types, but I still don't get what the difference is between Save and RunAndSave. Oh, well...

An even bigger problem is trying to figure out how to step through CIL code for a dynamic assembly. I can get the PDB file made, but that's it. There's no source code to step through, and I think I have to dive in and learn about a bunch of interfaces I've never dealt with and that are not documented very well either. Joy.

I e-mailed Gary to see if he can get me in touch with someone at MS to talk about this. I also e-mailed Dan F. (my reviewer) to see if he's even tried to get this to work. But I think I'm going to have to accept that this isn't going to be an easy problem to solve. I did find some hints here and there on the Internet, and I'm sure MS's book on CIL will talk about this extensively ☺, but I need to figure this out.

1.31.2002, 12:45 AM (1 ½ hours)

I spent some time trying to get the symbol writer to work, and...well...I sort of hacked something that did something ☺. The problem is, I don't know what I'm doing! This will take more investigation time – fortunately, Gary has the word out in MS and hopefully we'll hear something back. I found the MyC compiler example, but that's really nasty to follow and I'd like to not try and figure out what's calling what when if I can, but if I need to I will.

1.31.2002, 9:52 PM (3 hours)

I think I'm getting closer. I finally realized that, to use `DefineDocument()`, I needed a source file somewhere, and since I don't have one, I'm going to have to create a "mini"-CIL file so users can trace through that at run-time. I have to spend some time checking and re-checking things out – I ended up trying so many things I'm not quite sure what works and what doesn't under other method calls. But I think I'll have a solution; it still feels kind of slimy and hackish, but it should work.

1.31.2002, 11:12 AM (1 ½ hours)

HA! HOT DAMN! I **finally** figured this \$%#@% thing out!

I never looked at the stack frame in the debugger. And I also didn't realize why the parent assembly could load the symbols of a newly-created assembly (note to self: I really doubt I can get this working with transient assemblies, but you can emit symbol information for a transient module – the plot thickens...). But it all came to a head, and now comes the fun part – writing about it! Whoo, hoo!!!

2.3.2002, 3:52 PM

Little has happened in the past couple of days. Gary got me in touch w/ some MS folks – I asked them for some info on dynamic assemblies and I hope to get some answers soon. I can do debugging of persistent modules, but transient modules are still a bit of a mystery. Therefore, I've decided to move onto Chapter 8 for a while. The page numbers will fluctuate for a while on Chp. 8 because I've written a fair amount of it when I wanted to do it as an article. I need to change it a bit to fit it into the book.

I also need to write a chapter for the .NET security book, so that will take up time for the next week or two.

Finally, I need to update my machine to RTM. I hope it goes better than when I got RC3 on from Beta2. Man, that was painful...

2.3.2002, 3:52 PM (1 ½ hours, Chp. 8, 23 pages)

Don't let that page count fool you. Most of the day was rewriting the first 3 pages of the chapter. And I had a serious case of writer's block – I just couldn't get going. Oh well, it happens.

2.6.2002, 12:50 AM (3 hours)

More debugging investigations. I think I'm going to put the transient module case on-hold. Nobody from MS has given me information on this yet, and I really don't want to wait; if they get me some good info, I'll go back and change where necessary. But I feel like I have to get moving again – I feel like I'm falling behind.

I also was in an emotional funk. Either I was really down or pretty happy. At work I almost felt like I was going to cry, as stupid as that sounds. I think my Dad being gone is affecting me and I'm not really dealing with it as much as I should.

I need to buckle down, get all of the chapters in for the .NET security book, get this chapter in and do some "other" stuff. I felt good a week ago, and now I feel like I'm climbing up a hill again. I need to remind myself: one step at a time. Don't get overwhelmed.

It was nice to see somebody mention my dynamic proxies talk in the DM .NET list today. That was one of the bright spots.

2.6.2002, 10:38 PM (5 hours, Chp. 7, 17 pages)

I got the `DebugFile` class working – it's kind of skeletal, but enough is there so I can move on to writing the chapter. I hope I can get a lot more done tonight. Spirits were definitely up more today.

Gary may have more reviewers for the .NET security book – big-name developers. Man, I got the feeling that the manuscript is going to be ripped to shreds.

2.7.2002, 12:20 AM (1 ½ hours, Chp. 7, 23 pages)

The writing is done for `DebugFile`; it's probably rough in spots so I'll have to clean it up, but I need to take a break and then probably go to bed. I probably won't do much writing on this today – I have to touch-up 2 chapters from the .NET security book and they're due tomorrow. I really need to finish this by Sunday as I have to write that last chapter for ".NET Security" next week.

2.7.2002, 7:50 PM (3 hours, Chp. 7, 27 pages)

I'm almost done with Chapter 7. Hopefully, if I'm lucky, I'll get this done by tonight.

2.7.2002, 10:07 PM (1 hour, Chp. 7, 27 pages)

Chapter 7 is done – I'm shipping it as I type.

2.9.2002, 9:54 AM (4 hours, Chp. 8, 7 pages)

After spending some time on Chapter 8, I realized that I needed to basically start over with it. I didn't dump all the material – I'll use it for reference purposes, but it was written as an article and it just wasn't working trying to retrofit it.

I also need to revisit the dynamic proxy architecture as well. As I started rewriting, I realized that I need to add more to the project, and I figured that it's probably better to update the code and make sure the ideas work. Then I can go back and write about it.

2.10.2002, 6:45 PM (1 hour)

I finally bit the bullet and got my machine updated to RTM. Took a while – I couldn't read the CD key that Gary gave me and then I didn't unzip the files to the same directory. But everything uninstalled and re-installed correctly...I think.

2.22.2002, 11:55 PM ()

Well, a twelve-day respite from this book wasn't what I had in mind. A lot of things came up and I had to get them taken care of (e.g. getting asked at the last minute (so to speak) to give a talk on .NET security – argh!). But now everything's off my plate, and this book is getting the “final push” focus.

Dan Appleman is now the editorial director for the book. Gary's got too much to do and Dan's more of a “low-level” guy – hence the change. We've talked about how this should get finished, and he suggested that I work on Chapter 1 next. I think that makes sense – he's a bit concerned that I might really overwhelm the reader because he doesn't know how I'm going to set the entire book up. I've been thinking about how I want to approach it, and after some discussions with Dan I think I have a good framework.

I'm going to show a piece of code that's used and extended by a number of languages, like Oberon, Component Pascal, and Mondrain, along with the standard MS choices. That will lead into a talk about how they can interoperate, and where CIL comes into play. That should allow me to set up some initial definitions. I hope I can get this done by the weekend – I don't know these languages, but this chapter is not meant to be very technical, just cool ☺.

2.24.2002, 12:42 AM (2 ½ hours, Chp. 1, 3 pages)

Yikes, Component Pascal sucks! OK, it doesn't suck; I just don't get the syntax yet. I can see it has some interesting aspects, but right now a procedure that I don't want to have return anything won't work unless I define a return value. Grrr...oh well, I'll revisit it tomorrow to see if I can clean it up.

2.24.2002, 11:52 AM (1 ½ hours, Chp. 1, 3 pages)

Well, I think I'm going to try and write the Component Pascal example in Oberon. They're really the same thing, and the examples in Oberon are better (and you can actually create custom constructors, something that I can't seem to do in CP). I have to pick up Liz from the airport soon, so it looks like I won't be able to do this until I get back.

2.25.2002, 12:34 AM (2 hours, Chp. 1, 3 pages)

So much for language interoperability. This really sucks – I can't get Oberon to create public types that aren't sealed, and I can't get it to implement types that I make in C#.

It looks like I'm going to have to create the `IPerson` interface in C#, create an implementation of this in Oberon as `Person`, extend `IPerson` as `ICustomer` in VB .NET

and create a Customer implementation in VB .NET that contains and forwards to a Person object (because it looks like there's no way to create non-final types in Oberon – yuck!).

This will work, but it feels cheesy. However, I think this will also show how other compilers work for Chapter 6, so actually it's not that bad.

2.25.2002, 1:06 AM (½ hour, Chp. 1, 3 pages)

OK, that works. Whew! At least I have some kind of interop story. Now...do I chance adding Mondrain into the picture? ☺

2.25.2002, 9:39 PM (3 hours, Chp. 1, 7 pages)

I got the explanation done for the code interop section. I don't think I'll include a Mondrain example for Chapter 1; I'll add one in Chapter 6, though.

2.26.2002, 12:27 AM (2 hours, Chp. 1, 11 pages)

Got over the 10-page hump ☺. I think I have a good structure for this chapter. I hope I can finish it off tomorrow (which means a Mondrain example is looking pretty bleak right now for Chapter 1). It'll probably only be 15 pages, but there's lots of screen shots so it'll probably be 20 pages when it's printed.

2.27.2002, 10:19 PM (3 ½ hours, Chp. 1, 15 pages)

I'm submitting Chapter 1 to Dan A. as I type. No Mondrain-based ASP.NET page for now. I may include it after the reviews are done – depends how well I get to know it in Chapter 6. I think Chp. 1 is solid, but I also finished it sooner than expected, so I think I may have been subconsciously rushing it a bit. I'll see what Dan A. has to say – he was concerned that the introduction really needs to solidify core concepts and I hope I did that.

Anyway, I may start Chp. 6 tonight, but I want to spend some time tonight playing “Bloodwake.” I need a break – I feel somewhat burned out, but I also need to keep the pressure on myself. The .NET security chapters were finally sent out for review today, and I know there will need to be a lot of edits done, so I want to get ahead of myself with this book as much as I can.

Oh, I also got Lidin's book on Sunday. Looks very good, but he has nothing on the Emitter classes. Whoo, hoo! Great marketing angle for me!

2.27.2002, 10:19 AM (1 ½ hours, Chp. 6, 2 pages)

Started working on Chp. 6. I also got a review back of some .NET security chapters. They were shredded ☹. I knew that was going to happen, and I know it's better to do it now rather than later, but I hate getting bad reviews. I get depressed – I almost feel like it's a personal, vehement attack on me. I know it's a stupid response to get, but it

happens. Always have – always will. It’s just something I have to get over, deal with it, and make the chapters better.

I hate this too because now I’m questioning everything in **this** book. Is it good enough? Does it make sense? Am I communicating concepts effectively? Man, this sucks – I’m totally down right now.

2.28.2002, 10:39 PM (2 hours, Chp. 6, 8 pages)

More work on Chapter 6, mainly on looking at debug and release builds. I feel better today about the reviews – better now than later.

3.1.2002, 11:20 PM (3 hours, Chp. 6, 15 pages)

Got the discussion on the with statement finished. Interesting how it works – simple, but there’s a small subtlety with it (no pun intended). I’m working on the interface implementation section now – should have that done tomorrow. Lots of material left in this chapter – I just need to keep on pushing myself.

3.2.2002, 12:20 PM (2 hours, Chp. 6, 22 pages)

More work on the language outputs. I think Oberon has a bug in its’ code – it doesn’t include `.override` directives to implement interface methods. I’ve also been talking about VB .NET error handling, and I wanted to use Arakrino to handle the decompilation of the CIL from a method that uses `On Error Resume Next`. Well, it GPFs on that method – in fact, it really doesn’t like any method from VB .NET that uses error handling. Grrrr...now I have to figure out the translation myself!

3.2.2002, 7:57 PM (1 hour, Chp. 6, 25 pages)

Finished the error handling section. If someone ever insists on using `On Error Resume Next`, I think I’ll throw ‘em out the door after I looked at what is produced. Man, is it ugly!

3.2.2002, 9:31 PM (1 hour)

Grrrr...I can’t get the first example to work in CP either. It can’t handle overloaded methods (like `Equals()` on `System.String`) and I can’t figure out how to tell it which one to call. I think I’m doing it like the docs say, but it doesn’t work. Sigh...time to move on.

3.3.2002, 12:20 PM (2 hours, Chp. 6, 31 pages)

John Gough got back to me on my CP issues, and now things work with respect to resolving the `Equals()` call on `String`, so I finished up the first section in the book. It’s funny – I ended up showing how to get rid of the `Type` reference in all three cases, and the CIL results were different (C# and CP use `call`, whereas VB .NET uses `callvirt` on `GetType()`). So I talked about that, and then I thought, “did I mention this in Chapter 3?” Sure enough, when I looked back I had a footnote in the method invocation section that I’d talk about the differences in Chapter 6. Whew! Dodged a bullet there!

3.3.2002, 5:06 PM (2 hours, Chp. 6, 31 pages)

I think I'm done with the chapter ☺. I'm not going to have a Mondrain example as it can't create a separate library (at least I can't get it to do that). Also, the nomachine/noappdomain/noprocess idea is achievable with the AssemblyVersionCompatiability – I didn't realize that until I start diving into this via CIL. So I think I'm going to just wrap up the chapter as-is and go on. I may spend an hour or two on active objects in Oberon as that may be interesting to talk about, but if I can't get it to work as expected then I'm just going to let it go.

3.3.2002, 10:54 PM (1 hour, Chp. 6, 32 pages)

I'm "done" with the chapter – I added a discussion on active objects in Oberon and the potential dangers with their implementation. I just need to clean up the chapter – the figure numbers are off, for one thing. Then I have to start the taxes tonight – I don't want to delay that any longer than I have!

3.3.2002, 11:47 PM (1 hour, Chp. 6, 33 pages)

I'm shipping Chapter 6 off to Apress as I type. I'll work on the taxes tomorrow night. I've never done them before, so I'm a little intimidated at them, especially since I have a lot of work to do in the next month. I want to get them done ASAP so I don't keep on blowing them off.

3.4.2002, 12:40 AM ()

On a pretty personal note...

I've been thinking a lot about my Dad tonight. I mean, this book is being written in his memory, and I really want to make it the best I can. And it's just hard to know that he's gone – I mean, to really know that he's not there anymore. I miss him a lot. He was such a nice guy – always wanting to get you something to drink, always willing to crack a joke, and always willing to laugh as well.

I wish I could've spent more time with him. I guess everyone who loses someone they love feels that way as well. But that doesn't make that desire go away either. I had fun being with him – so many other people did as well. That's what I want to achieve in life. To impact people in a positive way, in the best way that I can. I have only one shot at life. I don't want to regret it. I don't want to ignore it. There's too much to learn about, there's too much to discover. I don't ever want to feel bored.

He wasn't perfect. But, hell, who is? He was who he was, and I miss everything about him. I can't imagine what my Mom is going through every night, going to bed with no one there. I think of Liz sleeping in bed right now, and, Christ, I'd be devastated if she was taken from me. She means the world to me...

Man, just thinking about all of this – I lost it (good thing Liz is here). If there's any wisdom I can give to a potential author, it's this: it's a lot of work to be just mediocre, so don't try to write two books at the same time, and if someone you love dies, seriously

consider stopping. It's been so hard to stay focused, and while I know he would've wanted me to continue, it's been a struggle.

I hope I do you proud, Dad.

3.4.2002, 11:53 PM (1 ½ hour)

I did some investigation work into my dynamic proxies architecture. I felt it was a mess, and I wanted to see if I could clean it up. Well, I can! Man, was my original idea a convoluted piece of crap!! Here's what I can do to clean it up.

First, go through each interface, and inspect each method on the interface. If the target method from `InterfaceMapping` is public, then ignore it because I'll pick it up in a moment; otherwise, add the interface's method to a collection (or vector, whatever, I'll figure out the appropriate bucket later). Then, go through the type's methods, and add all the virtual public methods. This will define the complete set of methods (including properties) that I can hook.

Then, I go through this set, and create the hook itself. All methods will be overridden, and the underlying method that implements the hooked method in the proxy will have the additional mangled adornment that the proxy has.

So if I'm given a type called `HookMe`, the sealed proxy will be called `HookMeABC`. If it implements an interface `IHook` with a method called `GoAhead()`, I'll create a private virtual method called `GoAheadABC()` with the same return and argument types, and override `GoAhead()`. If `HookMe` has a public virtual method called `MakeMyDay()`, I'll have a private method called `MakeMyDayABC()` with the same return and argument types, and it'll override `MakeMyDay()`.

This cleans things up immensely. I'd like to use a `Guid` to make the mangled adornment easy to generate, but I may just use the version number concatenated, so this would allow me to save all dynamic assemblies to disk in the same directory with no problem.

Now, of course, I have to rewrite the entire proxy generation code ☹. But I have two weeks to do this, and I know I can get it done. And this will allow me to have much cleaner code. I'd love to add XML config files to the mix to allow fine-grained control over which methods get hooked, and allow the user to update the config file to get currently gen'd proxies to get out of the cache and create a new one. I'd have to have a thread monitor the proxy assembly's directory for changes (`FileSystemWatcher` is the class for ref. purposes ☺). But first, I need to get the proxy code done!

Here's the rules for proxy generation:

Give me a type and an array of `InvocationHandler` object references (all of which must not be null). In this case, when the internal method is invoked, I'll iterate through the IHs and call `Before()` and `After...`() appropriately. In each case, if I get a

BubbleException == true, then I immediately stop the iteration, and throw the exception.

Give me a type. In this case, an `InvocationHandlers` element must be present in a config file, and there must be at least one `InvocationHandler` element that defines the type that implements IH and what assembly the type exists in.

In both cases, if a config file exists for the type, see if the target method exists in the `Methods` element. I need to have a way to get the method signature (name + arguments) in the `Method` element as a `Signature` attribute and compare it to the given method – I think this will be the easiest check.

Again, that config processing can be hooked in fairly easily (so the 2nd method won't exist until that's there).

There's a lot of work to do, and I have to do taxes tomorrow (argh!) but I'll get this done!!!

3.6.2002, 12:14 AM (3 hours)

I started rebuilding the proxy architecture. I've been able to streamline a lot of code, and all I have left to do is build the general `invokeMethod()` that hooks the method, implement all the methods, and then create methods that override the targets. The first task is the big one out of all three, and the other two are not that hard – I already have the code to get the arguments into an object array (I hate boxing, but oh, well). I need to now iterate through each `InvocationHandler`, so that code is going to change a bit, but that should be too hard either.

I also notice that regions work within methods. It's a very small thing, but it makes for an interesting discussion. I created a "Preconditions" region around the preconditions in `Create()` along with a "Variable Declarations" region. It makes the methods look smaller, so I wonder if developers who love to write large methods now have an "out" to hide that ☺.

I put off taxes until Sunday. I want to get the proxy stuff up to where it was before and I want to do it before Friday – my b-day is Sat. so we're going to celebrate. I should be able to hit that target, but then I'll still be behind with XML configuration. I may need to hold off on that for the chapter, as that's the bigger goal now (I need to write the damn thing ☺ and there's still an appendix and intro).

I'm beat. I've actually been busy at work the past couple of days – nothing hard, but this web page needs to be added by Friday, and while I'm on schedule, I want to get it over with. When I actually put in an 8-hour day where I'm pretty much thinking all day it's harder to stay frosty this late at night. I know, I know – "back in my day, we worked 12-hour days, creating the holes in punch cards with a toothpick..."

3.7.2002, 12:12 AM (2 hours)

This is taking longer than expected ☹. It's slow-going, but I'm getting there. Adding a chain of `InvocationHandlers` made it a bit more complicated, and I might as well resign myself to the fact that I'm going to get `InvalidProgramExceptions`!

I ran into an interesting problem – it's actually a bug in my first attempt at a dynamic proxy. When I call the target method, I need to know if there's actually a return value on the stack. This will vary from method to method, and I can't do this in the `Proxy` class; that is, I need to do reflection on the target method in the gen'd CIL. "My brain hurts!" Sheesh; fortunately, using `ldtoken` (funny, John Lam just found an application for this opcode today as well) and `GetTypeFromHandle()` solved the check for a void return type.

3.7.2002, 1:26 AM (1 hour)

Well, I have all the base code in the new `Proxies` assembly, but this is not the time to test it. After I get some sleep I'll re-check the code to see what I did wrong, re-re-check it, and then give it a whirl. The code to `gen invokeMethod()` is pretty much a re-write, and I really need to check that out again. The code to gen all the proxy stub code is a port from my old stuff and I need to weed it out for bloat (for some reason I have temp variables and I'm not sure why, but I know this code has some kinks to work out so I kind of trust it...sort of).

I also realized that I'm not supporting `vararg` calls. Oh, well...v2.

3.7.2002, 10:10 PM (3 hours)

After a number of `InvalidProgramExceptions`, I finally got the hooks working. I was a bit disappointed with the results – I forgot that both VB .NET and C# make the methods that implement the interface methods `final`, so you can't extend them. D'oh! I've seen that before, but it never really registered until I got a weird error about final methods and the target method implementing it...oh, well. I can hook virtual methods on a class now, and if the client calls the interface method through an interface ref, the hook is called as well, so it's not too bad.

I need to clean up two things. `GetHashCode()` doesn't seem consistent across `Create()` calls – I'm not sure why, but I need to get the same value for a string value. So I'm going to create a hash value from the string, and then Base64-encode it to get the "hash code". It may make the method names too big. Actually, now that I think about it, Rector's `Demeanor` uses some really funky characters to obscure the types, so I might be able to just use the hash value's as characters. Ideally, the user should never need to see what the proxy's methods look like, so who cares if they're a bit ugly?

I also need to test things out more thoroughly. I haven't messed with changing `arg` values or return values or throwing exceptions.

I doubt I'll be able to get the XML support in before I have to turn in the chapter. I still need to write the damn thing ☺, and I'm taking two days off for my b-day, and I need to do taxes on Sunday, so that has to go for now. Bummer. But I think I still have a cool tool, and I'm going to try and sneak it in during the review process.

3.7.2002, 10:40 PM (1/2 hour)

Cool – the hash + Base64 stuff is done – works like a charm. The name looks ugly and I'm wondering if I really doing overkill here, but we'll see.

Duh! The reason it keeps on changing is I didn't physically set the assembly versions, and since my assembly and type keys are based on this, it kept on changing. Argh! I have to test out the old way again, hold on...

Yeah, it all works now. So it was always working; I was just letting VS.NET auto-increment the version number. Sheesh.

Oh, I just realized setting `CallMethod` to false in `BeforeMethodInvocation()` has some problems. If there is a return value, because the method doesn't get called a `NullPointerException` occurs. If there is no return value, I get an `InvalidProgramException`. I may need to rethink the design on this one. The IPE problem is a coding issue, but I'm now debating whether I should prevent a method invoke at all. This leads me to see that Java passed the `Method` ref into the `InvocationHandler`...

I have to persist the stuff to see what's going on...

Yikes! I threw `PEVerify` at my results, and I'm getting errors all over the place. About half were due to it not being able to verify that a `MethodBase` is on the stack, but the argument it's being passed into was a `MethodInfo`. Duh...oh, well, a `castclass` took care of that. But I'm getting other errors, and I still can't see why I'm getting the IPE on `PreventMe()`. Pop the stack? Damn, that was it!

I may need to make the 2nd argument to `InvokeMethod()` a `System.Object&` to get `PEVerify` off of my back...Yep, that got rid of more `PEVerify` errors. I'm down to two.

Odd...it's barking at me because I'm calling `.ctor()` on `System.Object`. But that's what the compiler generates in regular VS.NET apps anyway!?

3.8.2002, 12:16 AM (1 ½ hours)

OK, I fixed the `.ctor` problems, along with getting the return value set correctly from `InvokeMethod()`. Now I feel much better about the consistency of the proxy architecture. Of course, I'm sure to find other bugs ☺, but it's much better than it was before! Oh, I also got `#if DEBUG` statements in so the debug version will create persistable assemblies, but the release version keeps it all in memory. At least that way I can read the CIL and see what's going on. This isn't really something I want to create a PDB+miniCIL file for, at least not right now.

I'll see what I can do tomorrow, but I think this is on-hold until Sunday sometime. It's basically down to writing my ass off to get Chapter 8, a brief "summary" chapter (9), an appendix and an intro. I feel like I finally got over a big hill, but I can't hit the brakes completely. Need to keep the focus sharp.

I also need to test throwing exceptions in methods and gen'ing them in the After...() calls. We'll see what happens tomorrow.

3.9.2002, 12:15 PM (1 hour)

This is basically from yesterday. I change the architecture around a bit – I created a `MethodContextInfo` struct that I pass to the client in the IH methods. That way, they get more information about where the method came from. I have to change the type name to reflect the target type, but that's the only bug left.

I'm pissed, though. The code update on my floppy is trashed, so I can't get it over to my computer. I'll have to stop by the office tonight to get a new copy of it – I hate to do that, but I have to work on it tomorrow.

3.10.2002, 11:56 AM (1 hour)

Instead of driving into the office to get a copy of my work, I just reproduced the change here this morning. It wasn't that big of a change and it was really cold outside last night, so I didn't want to drive around any more than I needed to.

I'm still debating over adding configuration to the mix. `AppDomain` defines a `DomainUnload()` event, so I'd be able to know when my code was going to be unloaded. This is important so my method that watches for directory changes would be able to break out of its' watch. Problem is, `Proxy` can be loaded into a number of domains...but I don't think that's a problem in terms of the same type being proxied in different domains.

I think what I'll do is write about what I have right now. Then, if I think adding configuration is a good thing, I'll do it. I don't want to sidetrack the reader on other issues like threading and file watching, but at the same time, such issues are important, and configuration is really needed in this case. I'll think about it some more.

3.10.2002, 2:32 PM (1 hour)

OK, no configuration. Not for the initial chapter submission. I can't hook `DomainUnload()`, and for me to be able to shut down the file watching thread correctly, I need to be able to do this. I think I'm missing something fundamentally easy with this event, but I can't continue working on it. Time to buckle down and finish Chapter 8.

3.10.2002, 10:24 PM (1 ½ hours, Chp. 8, 9 pages)

I set up the structure for Chapter 8, so all that's left is to fill it out, and I'm done (save an couple tidbits here and there).

Liz and I watched the “9/11” special on CBS tonight. Damn. Even with the video from within Tower 1, I don’t think it caught just how truly scary it must’ve been. I think I would’ve felt so frustrated if I was there (among other things), because there wouldn’t have been much I could’ve done. Hearing the bodies fall and hit the lobby ceiling was chilling.

3.11.2002, 12:54 PM (2 hours, Chp. 8, 9 pages)

I changed the method mapping techniques. I didn’t like it that, if a method was public and decided to implement a number of interface methods, I should also reflect that design in my code. It’s a head-twister because I keep on forgetting that if a target method is public but final and implements a number of interface methods, it’s OK to use the target method as the target. I just can’t override the target method itself. But now I like it because I can have a method override a number of interface methods if the base object had that design as well.

I’m tired, and I really don’t feel good. Don’t know if it was something I ate today or what, but I feel a little crappy. I didn’t get the taxes done either, but now I will **not** touch the proxy design again (really! I mean it!). I’m simply going to write it up and turn it in. I have to do taxes by next weekend – if I never get them done I’m really screwed.

3.11.2002, 10:24 PM (3 hours, Chp. 8, 15 pages)

I’m up to the section on implementing `InvokeMethod()`. I really want to push hard tonight to get this chapter done. There should be nothing to prevent me from doing that (knock on wood ☺).

3.12.2002, 12:13 PM (1 ½ hour, Chp. 8, 27 pages)

I’m close, but I need to take a break or simply go to bed. I have to talk about the test app along with how contexts work, but there’s no way I can get that done, and I’ll probably need to do a lot of edits before I submit the chapter anyway. I’m glad I took configuration out – I don’t think I would have had any room for that.

3.12.2002, 9:18 PM (2 hours, Chp. 8, 33 pages)

OK, I’m closer! I got the context stuff set up. Now, all that’s left is talking about that, comparing the two, and then tidy things up. I ran into a weird problem when I was inspecting the proxy type – the overriding methods kept on showing up twice. It turns out this is an artifact when I mark the method as `hidebysig`, but `ILDasm` didn’t show it twice. Oh, well. I have to make sure I get Fred’s name in the thanks for the book as he pointed this out to me.

3.12.2002, 10:38 PM (1 ½ hours, Chp. 8, 39 pages)

Done! Well, not quite – I still need to reformat stuff, make sure the figures are numbered correctly, etc. But it’s all there, finally!!!

3.12.2002, 11:14 PM (½ hour, Chp. 8, 38 pages)

Damn!!! Done!!! I'm finally done with the CIL book!!! HOT DAMN AND HALEJULIAH!!!

OK, I'm not quite done. I need to create a conclusion chapter, an appendix, and an intro. But the main parts are done...finally.

This is good as I'll need to switch over to the .NET security book to make edits to the reviewed chapters next week. And I can't be lazy – I need to get those last tidbits done. But it's a relief to reach a major milestone.

3.13.2002, 12:15 AM (1 hour, Chp. 9, 2 pages)

Finished the last chapter. It's not meant to be long, just a quick summary of some heuristics to follow.

3.13.2002, 1:53 AM (1 hour, Intro, 2 pages)

Finished the intro...more or less. It'll change a bit as the book isn't done yet, but it's not overly technical either. I'm going to submit it, though, because I want to make sure it grabs the attention of the reader. I'm beat – my bed is calling.

3.13.2002, 10:48 PM (3 hours, Appx. A, 6 pages)

I'm done. Finally, I'm done. I finished Appendix A today – man, was that fun. Learned a lot about generics and functional language construct. I still have more to learn, but playing with Extended IL was a blast. I turned everything over to Apress – now I wait until the reviews are in. This is good as I need to switch gears for a while and edit the .NET security material anyway. I'm going to go race some Gotham cars for a while or maybe blow up some Halo aliens – I deserve it!

3.14.2002, 11:06 PM (1 hour, Appx. B, 2 pages)

I decided to add one short appendix – a list of languages targeted for .NET. I already had one on my laptop, so I just reformatted it and sent it to Apress. Now I'm done. Really. I mean it.

Read up on ILX today. Very interesting stuff. I really need to understand the terminology of functional languages, but I'll get there.

3.17.2002, 10:36 PM ()

I took a vacation of sorts this weekend. I didn't do a damn thing on either book. In a way, it felt refreshing. Tomorrow's a new week and I plan on finishing Chapter 1 and 2 for the security book. Dan F. still hasn't received any of the CIL chapters to review, and I want to get working on that as well.

I got my taxes done this weekend. I'm so glad I picked up a copy of TurboTax and did them myself. It was pretty easy, and it saved me money not having an accounting firm

do them for me. We broke even this year, which is pretty nice considering that the last 2 or 3 years we've had to pay. Having a house definitely helps for the write-offs. I have to be careful with the finances this year, as my books will finally hit the shelves. I don't expect a deluge of money, but it'll probably be more than last year so I need to make sure I write off as much as I can.

I also just came up with an article idea for VSM. I'll have to contact them tomorrow – could be a cool article on emitting code and finally developing the VarArg component for VB .NET developers. Could be a nice tie-in for the book as well.

3.18.2002, 12:37 PM ()

I'm not having a great day today. I had to bring the car into the shop to get fixed, and it ain't cheap (\$370). I really, really, **really** hate cars. If I could work at home full-time I'd do it in a heartbeat. And Liz is somewhat upset about her doctor's visit this morning. So when we talked, it didn't go well ☹. I felt like an idiot later – I should've been more supportive. I was just too pissed off to talk about things.

I decided to just take the day off and work on book stuff here. I was able to get the VarArgInvoker component to work from VB .NET, so I'll contact VSM/DevX and see if they're interested in an article on this kind of stuff. I'll also start editing the security book as well.

I also have to make sure I run PEVerify on all of my components. I ran into an odd issue with my code from the CIL book that I was using as a vararg reference and there were problems. I need to ensure the code is working correctly. I hate it when authors release books and the sample code sucks. I try my damndest to make sure that the code is in working order before I ship it.

3.26.2002, 12:38 AM ()

Supposedly, Dan F. is reviewing chapters and will have 2 or 3 done within the next 7 to 10 days. Not that I need to work – I've been desperately working to get the security book done. My mood with that book is: ship it. That's not a good mood to be in, because quality can suffer. But when I think that I've spent over a year on this book in its multiple incarnations, I've had it. I want it done. I want it over with! I mean, I want it to be good and I want it to help people, but jeeze, just ship the fucker already! I'm close – I have two chapters left to edit, but they're the biggies: code access security and role access security. If I can get those done in a week then I can (hopefully) that this 800 ton rock off my back and breathe a little easier.

4.1.2002, 10:28 PM ()

Dan F. got Chapter 1 back to me. While I won't be able to do anything with his reviews for a little while, at least I know he's working on it. I also am writing the article for Pinnacle – VSM wasn't thrilled with it, but Karen liked it.

4.5.2002, 12:25 AM (1 hour)

I'm back on the horse! I finalized Chapter 1 – I'm about to ship it over to Grace. There weren't that many edits to make on this one, but that should change with the other chapters. I'm a bit worried right now because Dan F. hasn't turned over any other reviews, and I need to get moving on this. I finished the CIL article for Pinnacle today as well – that should be a good tie-in for this book's materials.

4.6.2002, 11:53 AM ()

Dan F. sent me his Chapter 2 edits yesterday – I just took a look at them and they seem good. Nothing came out and struck me as a “oh-shit-I-have-a-lot-to-do” comment but I'll find out when I look at them closer. He said he should have Chapter 3 done this weekend so I want to get #2 done before Sunday night. Also, *supposedly* my two books should finally be up on Apress's site next week. That's always a cool sign that the book is officially coming to life.

4.6.2002, 1:10 PM (1 hour)

Got about halfway through Dan's Chapter 2 edits. I should be able to finish up the rest today when I get back from working out.

4.7.2002, 3:18 PM (1 ½ hour)

OK, I didn't get through his edits. It's interesting, though, that he didn't catch that most of my method declarations don't have return values, not even void! Of course, that also shows that I should've caught this myself, so I'm going to add simple .il files for this chapter, but I'm going to let the reader know that the results won't do much.

4.8.2002, 2:03 AM (4 hours)

Wow, that could've been embarrassing. Dan mentioned in one of his comments that he wished I had code samples for Chapter 2. I didn't think it was necessary as there's not much you can do with ilasm directives. But...I thought it would be a good check of my code, so I decided to make code samples. Good thing I did – a lot of the code in the chapter either wouldn't get past ilasm or failed on PEVerify. Now all of the code is OK, but...wow! That could've turned into a very ugly situation!

I'll finish up on the chapter tomorrow. It's done in terms of a review, but I'm really tired, and turning in the final copy on a fresh set of eyes is always a good thing.

4.10.2002, 1:06 AM (1 hour)

Oops! Forgot that I never fixed my explanation of `.publickeytoken` when I turned in Chapter 2 yesterday. I only remembered when I was glancing through a copy of Richter's .NET framework book on a co-worker's desk. I just so happened to open up the book to the section on strong-naming assemblies, and I suddenly realized...um, I never took out that TODO, did I? Better to catch it now than later.

The security book edits are going to take some precedent. Apress wants that to have higher priority, and understandably so. I think the next 30 to 45 days are going to be stressful, but that'll be it, I hope.

On a somewhat related note, I'm trying to create a method call graph given a method on a type. I'm using Roeder's ILReader classes to read the CIL from a method, but so far the search is dog-slow. Any depth greater than 2 is painful. I have a couple of ideas to make it faster. One is to search for the method if it's already been found somewhere else, and just reference that node. That helps a little, but I don't think it's quite correct as the node counts don't equal what I got before I added the search. Another idea is to allow a base method call graph object to be added to a static cache so other searches can use that as well. I think that will help out, but I need experimental benchmark evidence to ensure these help. I think the biggest problem is in reading the CIL for a method, but I don't know if that's the true source of the performance woes. Oh, well – this is all being done for a security tool I'm writing and I hope I can get it to work and publish it – it would be a nice combination between the two books. It's been fun so far.

4.15.2002, 12:53 AM (2 hours)

It was 90 out today. In Minnesota. In mid-April. Wow!

Got Dan F.'s review of Chapter 3. For a while I thought he was going dark but he seems back now. I got most of his edits in; there's still about 2 to 3 hours of work to get the chapter finalized. Again, I have to stay balanced between this book and the security one. Apress wants the security book first and I will stick to their schedule, but I want this book out the door as well ASAP.

The call graph thing won't work, as the tree gets waaaay too big. But I'm using the FxCop library and Karen and I have talked about making that a Pinnacle article. So much to write, so little time.

One side effect of this project is that I thought of some ways to calculate the .maxstack value. But I doubt I'll be able to get it into the book. Not enough time.

I feel a cold coming on. My throat is sore. I have a presentation to give next Thursday – I hope I feel OK enough to talk. It's the exact same presentation I gave two months ago, so I just need to review the talk and rehearse once – I'll do that Sunday. Should take about 2 – 3 hours (ack! Need more time!!!)

Needless to say, the books are still not up on Apress's site. Told you so!

4.17.2002, 12:44 AM (4 hours)

OK. I over-estimated. Sue me. But Chapter 3 got shipped out today. I realized that I wasn't handling these edits the "correct" way and Grace rightfully knuckle-slapped me in e-mail. Oops!

4.22.2002, 10:28 PM (2 hours)

Forgot to mention yesterday that I turned in Dan F.'s review of Chapter 4. I don't know about that chapter...it still feels necessary, but it doesn't feel "right" yet. I'll see what happens during the editing – so far, I've really like what the editors of my security book have done. They're not that major, but sometime a small re-phrasing of a sentence means sooooo much.

I also spent an hour today coming up with a small yet way cool design to make enumerating enumeration easy...until it dawned on me when I was working out that `GetValues()` on Enum is returning an Array, which is enumerable! Duh!

Oh, it was 40 today. In Minnesota. In April. Fuck!

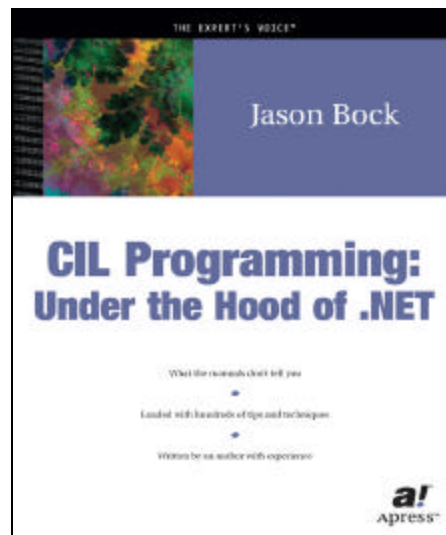
Finally, I turned in the call graph article to Karen yesterday. Whoo hoo!

4.23.2002, 10:12 PM (2 hours)

Forgot to mention yesterday that I turned in Dan's review of Chapter 5. I'm not keeping this diary as current as I should lately ☺.

4.24.2002, 11:33 PM ()

Apress **finally** sent over a mock cover of the book. Here it is:



This was exciting to see. It's another milestone crossed. I absolutely love the fractal – I hope they keep it for the final version. It's still not on Apress's site, but given the fact that I got this image means it's close to being pushed live. Of course, it's already up on my site!

4.27.2002, 11:13 PM (1 ½ hours)

Dan F. sent me his review of Chapter 6. I worked on it last night, and I'm going to try and finish up tonight, but it'll be hard. This weekend stinks because Liz and I are painting the bedroom. We go the main coats down, but we still need to put the sponge layer on tomorrow and Liz wants to stencil a pattern all the way around the top of the bedroom. So our bedroom is all messed up and it'll probably be that way for about a week. I don't mind it, but it's kind of annoying. At least I have a bed to sleep in.

4.28.2002, 1:38 AM (2 hours)

Well, I got close to finishing Chapter 6, but not quite. It's one small explanation to add, but I'm so shot I just want to sleep. I'll finish it up in the morning.

Adding the .other directive in action was a hoot. All I can say it, having the ability to get, set, and let a property in VB6 was a bad idea.

4.28.2002, 6:47 PM (1 hour)

Just turned in Chapter 6.

4.29.2002, 10:50 PM ()

Dan sent me Chapter 7 today, so I'll work on that tonight. But I'm really pissed off about one of Liz's co-workers. She said he's starting to be too physical – he kissed her hand today and he's making comments about how pretty she is. What the **FUCK** is it with guys who are so fucking clueless? She's married, asshole, and she has no fucking interest in you. Get a life, moron, and stop hitting on someone you have no chance with.

In my book, you don't do that at work. Ever. Period. End of story. There isn't an argument otherwise. It isn't "just being friendly." It's being a dick. I've worked with women that I find attractive, but I'd never even consider being physical with them in any way whatsoever at work. Didn't matter if I was married or not. That's playing with a lawsuit big-time, and I will not stand around with my head up my ass while someone pulls this shit.

So I hear this, and then I can't concentrate on anything, and I end up saying "fuck" a lot ☺. She said she'll talk to her boss tomorrow morning, and I hope she's forceful enough to get his supervisor to tell him to back off, period.

5.5.2002, 10:43 AM (1 hour)

The 1 hour is from finishing Chapter 7. I now have the rest of Dan F.'s edits, which I plan on getting done in a couple of hours. The book is also starting the edit stage. This is funny. Apress wants the security book out due to security being a big issue these days in the computing world. But they announced the CIL book to their sales team first, so they're expecting this one to come out first. So now I'm behind on the CIL book! I had to laugh when Grace told me this (I think she found it a little silly as well). It doesn't

bother me; I just found it humorous. Anyway, I now have Chapters 1 and 4 edits so I'll finish those off as well.

I could've finished this up yesterday, but I got asked to go golfing. 47-48, for a 95. Not bad for me, considering that I haven't swung a club in about 6 months. It was cold out – I usually don't like playing until it's 65 degrees out. But I had fun. I also had legitimate birdie chances on 5 holes (putts of 20 feet or less), which is really weird for me. Even when I play well I'm not that close for a birdie on that many holes. That should tell you that I had some really awful holes as well!

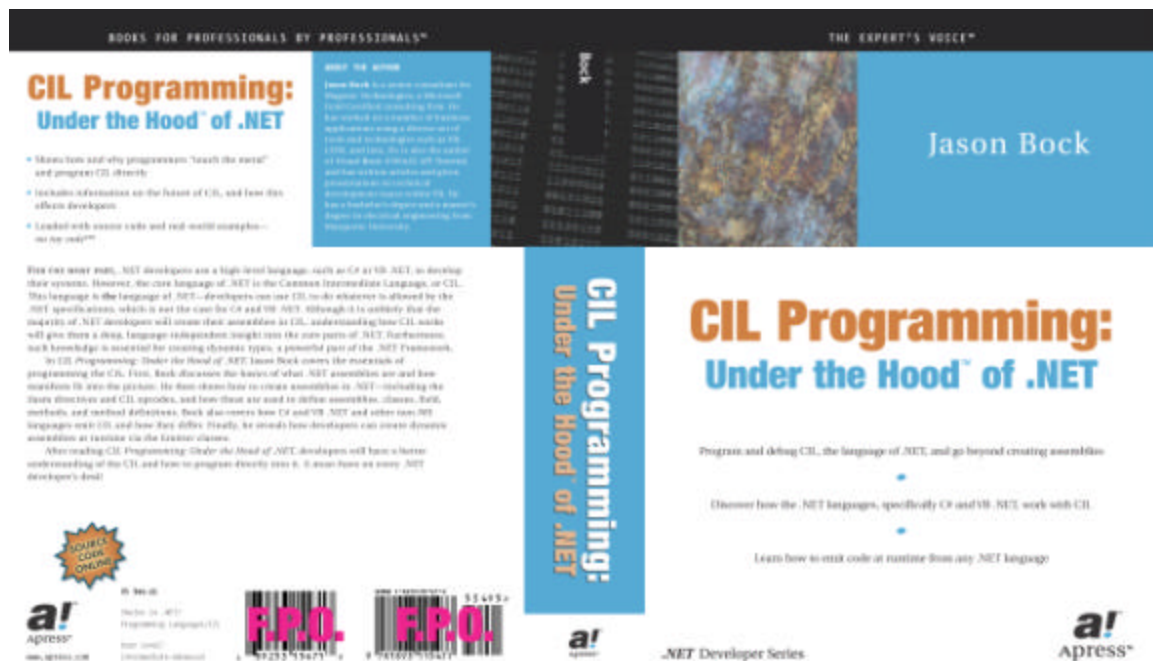
5.5.2002, 11:53 PM (2 hours)

All of the reviews and edits have been sent back to Grace and Ami. It would be kind of funny if the CIL book got done before the security one.

5.9.2002, 12:21 AM (2 hours)

Well, I've been cleaning up some final edits from Dan F. Now I'm back on track with Ami, doing the standard edits. I just send Chapter 2 back to Ami, then I discover that she just finished editing Chapter 3. I'll see if I can get it done tonight.

Stephanie also sent me over the finalized cover of the book:



I like it. Much better than having my mug on the cover (and who **really** wants to see that?).

5.9.2002, 12:59 AM (½ hour)

I'm about to send off Chapter 3. That leaves 6 through 9 and the two appendices.

5.9.2002, 10:17 PM (½ hour)

I'm currently putting together the front matter (dedication, introduction, etc.). I also need to export art to either AI or WMF format. Yuck. At least I'll know to do that first in the future.

5.10.2002, 7:47 PM (1 hour)

I finished editing Chapter 7. One more big chapter to go!

5.11.2002, 10:08 PM (1 hour)

I spent some time yesterday getting some quick ref. sheets together. I don't know if they'll be included in the book as a tear-out or in the downloadable code so the reader can print 'em off. We'll see.

I just finished watching "Ocean's Eleven" (the remake, not the original), and then I checked e-mail and Chapter 8 is ready for my edits. I want to get this done tonight as it's the last main chapter of the book. Grace also told me that the layouts are almost ready so I'm about to move into the final stage. Ooooh...it feels so good! The movie was very good – very stylish and smooth.

5.11.2002, 10:46 PM (½ hour)

Just got done w/ Chapter 8. It's kind of a scary feeling now. Whatever is in the chapter is pretty much set – I won't be able to make any major changes anymore. The final edits should be minor at best. I never like what I've done, no matter what it is. But I think that's a good thing – I can be satisfied with what I accomplished, but I'm always looking for ways to improve my skills.

5.13.2002, 12:43 AM (2 hours)

I just got the layouts for Chapters 1 through 5. I edited them and I'm currently uploading them to Apress's FTP site. I still need to put together an outline for an article on securing code, and I'm tired. I also have a presentation to finish up for next Tuesday, and I also have a chapter due for the next book I'm co-authoring...when it rains, it pours. Good thing it's been raining out (literally) – I haven't had golf tempting me (although I **really** need to cut the grass).

5.13.2002, 9:45 PM ()

I have some minor edits to do from Dan F.'s second round of edits (nothing much) but I got some amazing news today. The CIL book is going to be the first hardcover book from Apress. Unbelievable. I don't know why I think that's so cool, but it is to me. Maybe it's just being the first. But I'm happy.

5.13.2002, 10:56 PM (½ hour)

I just finished the edits for the rest of the chapters – I'll probably get the page layouts later this week.

5.14.2002, 10:46 PM ()

Oops. That could've been bad. I realized that I was using the phrase, "virtual execution stack" in Chapter 3. That phrase doesn't exist anywhere in .NET! It should have been "evaluation stack." Fortunately, I'll be able to change it, but I hope there aren't any other stupid mistakes like this that sneak through.

I finally cut the grass tonight. Fun, fun.

5.15.2002, 11:42 PM (2 hours)

I edited some of the art work and sent that back to Apress. Now I'm marking up Chapters 6 to 9 along with the two appendices. God, this is mind-numbing. I've seen this text so many times it's really getting tedious. This is where focus is crucial – it's too easy to just gloss over the material and miss some small but important formatting or wording issues.

5.16.2002, 12:25 AM (½ hour)

I just finished the chapter markups – I'm shipping them over to Apress as I type.

5.16.2002, 8:48 PM ()

I got the index from Apress – I'll go over that and cut out unnecessary entries. But the big news tonight is that I accepted a position at Intertech as an instructor and consultant (software engineer is the official title or something like that). I'm really excited about this change. This is a place I know I can stay at for more than 18 months ☺.

It wasn't easy – Magenic is a good company with consultants who know their stuff. But I needed to move on, and Intertech is a great match. I'll be doing both Java training and .NET consulting to start. That's exactly what I've been looking for: a place that thrives on knowing multiple technologies. Plus, they have a great relationship with Apress (I only wish I would've left sooner, damnit!).

5.18.2002, 10:55 AM ()

I have a presentation to get done this weekend, and some other stuff as well. Things are finally wrapping up on this book. While I won't do a post-mortem until the book is physically in my hands, it's a good feeling to know that it's almost over.

It'll be 6 months tomorrow that I invested into this book. It's been a learning process from a technical standpoint, that's for sure. But it's also been difficult. Being stuck at a client where the work was less than challenging was mentally straining. Having my Dad die during the writing of this book was emotionally straining. And being up all those late hours was physically straining.

So why do it? Why write a book when the money isn't (usually) there? Why invest so much time in something that really doesn't pay back? Because I love it. I love writing. I love learning and being able to translate what I've learned into something that I can share

with others. That's it. If I didn't have a contract, I'd post stuff on my site. I'd write e-books. I'd do something. One of the biggest lessons I've learned during the writing of this book is that life is too short, both professionally and personally. I'm trying my hardest to get better managing my time and do things that I feel are important. That doesn't mean program my ass off every day. I get a lot of golfing and biking, activities where I'm not exercising the analytical part of my mind exclusively. But it does mean turning off the T.V. when there's nothing but crap on. I want to be able to look back on what I've done and feel a sense of personal achievement.

If you ever decide to write a book entirely on your own, make sure it's something you really have a passion for. I don't mean you "live and breathe" the writing process. Few people are that focused (Stephen Wolfram comes to mind, and...well, OK, he wrote a masterpiece in "A New Kind of Science"...bad example!). But you must be willing to sacrifice things in your life for a while. Make sure you have fun writing, that you truly enjoy it. Make sure you're with a company that supports your passion. And if you're in a relationship, make sure your spouse or significant other understands that they'll be going to sleep w/o you in bed (and make sure you pay them back in full with a romantic evening on the town – that's important ☺).

Hmmm...OK, so this **was** a post-mortem in a way. Go figure.

5.20.2002, 10:50 PM (½ hour)

I did some minor edits today during lunch – nothing major. And then, I got the message from Grace about five minutes ago.

The book has been shipped to the printer.

It's done.

In a way, though, it's never done. Books can lead to other opportunities that are related to the material, and if it sells well, there's always the possibility of a 2nd edition. (And I still have the security book to edit, damnit!) But for now, I can rejoice in the fact that all that hard work, late nights and sheer frustration have led me to the end of the tunnel, and there wasn't a train coming in either.

The best word I can think of for my emotional state right now is: contented. I think I'll be more emotional when I get the book (which will be the last entry into this journal) because it's still not physically done, and mistakes can happen at the printers. But I'm happy that it's truly over.

It's been one amazing journey. So much has happened me during the writing of the book. The hardest thing out of all of them is seeing my Dad pass away. To see him so fragile, to see him in so much pain as the cancer ate him away, and to know there wasn't a damn fucking thing I could do to stop it just tore at me. I wanted him to live, for Christ's sake. I didn't want him to die. I didn't want him to go. I didn't want to see him in a

coffin. I wanted him back so he could greet me when Liz and I when we would come back for holidays. But he's gone. A guy I admired and loved is gone. My Dad.

Add onto that two books that I needed to finish...man, I don't know how I did it. Liz, you are amazing. I could thank so many other people, but you're simply the best. You let me be to write, you are so supportive of what I do – it's a cliché, but I don't deserve what I have in you.

I said before that I hope I did my Dad proud with the effort I put into this book. Ultimately, that's reflected in what other people think of it. That's the biggest goals in my mind for a book: to help someone learn. But this time, it was personal. I wanted it to be as good as I could make it. And I know I'll find things later on that I'll want to change. Would he have been proud? I don't know. All I know is that I'm proud that he was my Dad.

This has been for him. I owe my life to my parents. Everything I learned, every opportunity I had, came from them. And if there's something I learned from him, it's this: Personal relationships are the ones that people remember the most. I can't tell you every word that I heard from some keynote speaker 2 years ago. But I can remember every hole from virtually every round I went golfing with my Dad. I can remember when he would grill burgers and brats for my high school band when we'd practice in the barn. He wasn't a nationally recognized speaker on .NET or Java, but to see the response that his sales reps gave when they found out he died was amazing. You don't impact people by making an emotionally-charged speech. You impact people by drinking a beer with them and just talking to them. And while I love speaking at seminars and I do think you can impact people that way, it appears to me that personal relationships are the ones that you cherish and remember the most.

And that's why I kept this diary. I wanted to show you what it's like to write a book. Ironically, there's a lot of emotions that you go through when you're dealing with ones and zeros. I envy those who can simply write and write and write and it seems like they can just let it flow. It's hard work for me. But I truly enjoy it. If anything, this has renewed my passion for writing, and I'm looking forward to the future. I have a number of article and book ideas that I'd love to do (which I'm sure Liz isn't happy to hear about ☺).

Will I keep diaries for other book projects? I'm not sure. It worked this time. But I have another book that I need to start with another author real-soon-now, and I don't know if I want to keep one for that one as well. Maybe, maybe not. But I'm glad I did it for the CIL book. It's been very educational to look back and read the entries. That's the one reason why I would do it in the future – the self-reflection is extremely helpful.

There's one more entry left – that'll happen when I get the book in my hands. But the journey is finally over. It took 6 months of work, but it's done.

6.25.2002, 12:27 AM ()

It's here!

Actually, my copies showed up this past Monday, but I was out of town and then Liz and I had some vacation plans this weekend, so I haven't had any time to make this final entry until now. I'm figured since I'm waiting for my other computer to finish formatting a drive I might as well write this (BTW I got some really nasty computer virus which is why I'm reformatting everything. I truly hate people who have nothing better to do than to destroy someone's investment. My tolerance level for virus writers and spammers is less than negative and that's putting it mildly!).

Anyway, there's not much to say other than I'm relieved that it's truly over. Oh, sure, I have an article to finish tomorrow night that I haven't even started. I have another book to work on. The commitments haven't change. But having this one completely off my plate is a great feeling. I'm already finding little errors here and there (IL instead of CIL, "virtual execution stack" wasn't changed in Chapter 3, damnit!) but overall I'm happy with it. Feeling the hardcover is wonderful – I love getting books in hardcover if I can. Now it's just a matter of distributing the copies to their rightful owners.

So...what can I say in closing? If there were one single, overriding piece of advice I can give, it would be this: enjoy life. That is, if you really like writing, I encourage you to pursue it. There are a lot of things in life that make me happy. In fact, this morning I had the rare opportunity to play a high-quality golf course in Michigan (Timberstone) and no one was on the course. I mean it – I was the only one on it for at least 9 holes, and the only time I saw other golfers was after I made the turn. I loved it. I didn't shoot the greatest round of my life, but I loved it. The weather was great, the wind was almost non-existent, and I had nobody to push me or to wait for. It was nice just to look at the holes and just relax. And that's why I write. Not because it's relaxing, but because I enjoy it. I may not be great at it, but I enjoy it, and I hope I continue to get opportunities to do it in the future.

It's a lot of work. It makes for long nights. It makes for tired eyes. But the reward of having your name on the cover of a book makes it all worth it. Who cares if someone gives me 1 star on Amazon.com? I want to make it as accessible as possible, but I can't please everyone. All I can do is give it my best effort. And if you want to write a book, make sure you don't do it half-assed. Give it due diligence. You'll be thankful in the end that you did, even if the critics say otherwise.

So, this diary is now finished. I doubt I'll do another one, at least not for any immediate projects. But it was fun to do and very educational as well. I may do it for my overall life experiences, although that one may not ever be published! Take care, and don't forget to pick up a copy of the CIL book!