## The Craftsman: 36 Dosage Tracking XIII The Color Purple

Robert C. Martin 20 March 2005

... Continued from last month.

The readout indicated **0.97**. Turing was not prepared for this. His heart fell. His eyes glazed. And, not for the first time, suicide taunted him. He looked around at the huge device that so many of his associates had helped him to build. Flowers, Von Neumann, Eckert, all had played their part. But the machine was his. The Automatic Computing Engine was his brain-child. He designed it. He programmed it. And now... Now he must deal with what it told him.

He felt as if the 30,000 vacuum tubes had betrayed him. As he stared at the number, **0.97**, he realized just how much he had hoped that ACE would declare their salvation. But **0.97** was a virtual death sentence.

Two months ago, the Japanese fleet in the Pacific had been routed, in no small part by the work that he and his fellows in the contingent had contributed to project Nimbus. How joyful those days had been! How they had buoyed his hopes. But ACE had computed the orbital elements of Clyde with more precision and speed than had ever before been possible. And the answer it gave left only three chances out of a hundred that humanity might survive. "We are lost," he murmured, "We are lost."

Yet even as Turing turned away from the number that spelled humanity's doom, an artificial sun blossomed over the Nevada desert.

## 21 Feb 2002, 1700

"Alphonse, can I ask you a question?"

"I think you just did."

Avery gave me a good-natured punch in the arm and said: "I'm being serious."

I ogled him and said: "You? Serious?" Then I notice the look on his face and got serious myself. "Sure, go ahead."

We were on our way from the lab to the general mess hall at the rim. I liked watching the starbow through the floor ports in the mess hall. Jerry, Jean, and the others were walking several yards ahead of us. They would probably go to the Journeyman's lounge for dinner. Jean favored the lower g. Avery kept his voice low. Apparently he didn't want the others to hear this conversation.

"How much do you think we accomplished today?"

"Avery! Not this again! You just got reamed through for this two hours ago."

"I'm not complaining, Alphonse. I'm just concerned. I know that this is the way Jean and Carole want to run the project, and I know that Jerry and Jasmine don't question it anymore. But I have my doubts. I'm willing to set them aside and work with the team, but I want to know your opinion. So how much do you think we got done today?"

"It seems to me that we finished the Register Suit requirement."

"Did we finish it? Do you think that we could really register a suit now?"

I thought about this for a second, as we stepped into the turbo lift. "Well, no. We don't have the bar code scanners hooked up to the system yet, and we don't have a real database or anything, and we really weren't sending messages over sockets. But we did get the logic of the requirement working."

We rode in silence as the lift hauled us 50 meters from the inner rim on 44 to the outer rim at 60. We could feel our weight increase, as we unconsciously braced ourselves against the mild anti-spinward coriolis force.

Avery didn't speak again until we were half way between the lift and the mess hall. When he did speak he rushed his words together as though speaking them had released a pent-up frustration. "I think we could have written a lot more code in one day. We hardly wrote anything code at all. That one little requirement should have been coded in less than an hour. We should have gotten five or ten requirements like that coded today."

Avery's face was reddening, and his eyes were starting to bug out.

"I agree with you Avery." I said. "We *could* have gotten a lot more *coded* today. But would it have been *working*? Would it have been *done*? That Suit Registration story is *done*. It's done in a way that I don't remember anything from school ever being done before. It's coded, it executes, its been tested against unit tests and acceptance tests. It's *done*!"

We turned into the mess hall, picked out some trays, and stood in the cafeteria line. I prepared two hot dogs loaded with mustard, onions, sauerkraut, and hot-peppers! My mouth started to water. Yum! Avery absently made himself a peanut butter and jelly sandwich. We both got a tall glass of lemonade. Then we seated ourselves at a table that had a clear view through one of the floor ports. The starbow shimmered there as always.

Avery took a long pull of his lemonade and said: "OK, you are right, that tiny bit of the Register Suit feature is done. But don't you think we could have done a lot more today?"

I took a huge bite out of a hotdog. Mustard dribbled out of the bun, and got all over my face. A hot pepper burst in my mouth mixing with the powerful bite of the mustard. Heaven! "Avery, perhaps you... are remembering what it was like to write... projects for school."

"Yeah, sort of. I mean we got a *lot* done in a short period of time!"

I wiped the mustard from my mouth with the back of my hand. "Perhaps it seemed that way to you. Perhaps your classes were more productive than mine. What I remember was frantic bursts of coding followed by long droughts of debugging, only to deliver a project that was buggy, and had taken lots of long midnight hours to get working. Sure the coding went fast. It was everything else that took so long."

"Well, you make a good point, but..." There was a dab of grape jelly on his cheek.

"Avery," I said around another dribbling bite of hotdog, "how much debugging did... we do today? We got Carole's acceptance... test passing without any debugging at all! It's done Avery! Tomorrow we're going to start working on the next requirement. The day after that we'll work on the next. And Friday we'll work on yet another. If we keep up this pace, just you and I will get four stories done. Jerry and Jasper will get three of their own done. We'll have seven stories done! And the week after that we should have ten more done. Gosh, if we knew how many stories Carole was going to write, we could just divide by ten to figure out how many weeks this project is going to take!"

Avery was chewing a big bite of his sandwich, and trying to talk at the same time. The result wasn't pretty. "Yeah.... OK.... but.... that assumes that all the stories are... the same size. Some are... going to be a lot harder... than that."

I picked up my second hot dog. Mustard laden sauerkraut splayed around my fingers. "Yeah..." I took a bite. "you're probably right.... But.... That's OK because... we can estimate which ones are.... bigger and.... so.... we'll still be able to tell... how many stories we can... get done in a week, and... how many weeks until we can deliver the... project."

Avery's sandwich was too full of jelly. A big glob dripped out into his hands as he took his next bite. "You could be right... I mean, maybe working this way....is more predictable. I suppose that Carole... would find that... comforting. But... What about QA?... Won't that take... a long time?"

I crammed the soakstall – the butt end of my hotdog – into my mouth, licking the mustard and pepper juices from my fingers while chewing and talking. "QA?... Do you think... we'll need much?... I mean

with all... the testing... we are doing. Don't... you think...

Suddenly I couldn't breathe. The soakstall had gone down the wrong way. I tried to cough it out, but it wouldn't come. Avery saw my distress and started whacking me on the back. Two whacks and the soakstall came flying out of my mouth. I took a deep grateful breath, and then apologized to the people at the next table.

"You'd better be more careful when you eat those." said Avery.

"Yeah, I guess I should. C'mon, I'm still hungry. Let's see if there's any pizza." I started walking towards the cafeteria line again.

Avery followed me. "Hay, Alphonse?"

"Yeah?"

"Did you know that you have two purple handprints on the back of your shirt?"

To be continued...