CROSSTALK

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COTS Reliability: An Oxymoron?

I've spent the last hour trying to come up with an ironic opening line about the reliability of commercial software, but every time I try to type something my computer locks up. So instead I'll state my point outright: I support legitimate military efforts to integrate commercial-off-the-shelf (COTS) software, so long as the companies that created the software for my computer aren't allowed anywhere within the same time zone as a U.S. military base.

The companies that created the software for my computer are all led by former executives of "Yugo Corp." Their quality standards for cars ("Transmission is securely attached with *extra-strength* masking tape!") have translated over to their software reliability rates ("Crash per hour rate is below 2.5!"). For example, below are the results from a commercial translation program. The following sample E-mail message went from English to Portuguese and back to English.

English version: "Hey, what's up? I've been slamming out some of my hottest code ever, but our new chief bugs me. At first she seemed pretty on the ball, but she won't cut us any slack. I can't take it, so I'm laying low and hoping she gets downsized. Drop me a line some time, all right? Well, I've got to cruise to my pad and hit the sack. Take care, John."

Translated to Portuguese and back: "Hey, that is above? I have beaten for I am of some the my hottest code always, but of our new main errors me. Beginning in seemed consideravelmente in the sphere, but in it will not cut them flabby. I cannot make examination d, thus that I am placing point low e waiting I start downsized. He leaves me to fall a line some hour, all for the right? Well, I started to cross cushion and beat sack. Care of the taking, John."

To be fair, this was translated by a beta version of the program, which was probably created faster and cheaper than the government could form a steering committee to appoint a task force to schedule an investigation on which countries use Portuguese. The bad news is, down the road this task force would probably recommend buying the above software for all military correspondence in Portuguese, and judging by the translation quality, within a matter of weeks we would be at war with Brazil.

But since COTS appears to be the wave of the future, some companies may need practice building software according to stricter military standards. Before integrating their software into our systems, we should let commercial producers start by building military systems where quality problems won't impact our national security—such as creating missile guidance systems for Third-World military dictatorships:

Dictator: Is the missile ready for launch against the line-dancing, Big Mac-eating capitalist swine?
Minion: Yes, oh crazed despotic leader! Type in the launch code and press enter when you are ready.
Dictator (types code and presses enter): Arg! A little paper clip cartoon is asking if I want help!
Minion: Press "cancel" and hit "fire"! (Dictator presses "cancel" and "fire.")
Computer: ARE YOU SURE YOU WANT TO FIRE? <Yes> **<No>**
Dictator: Yes! Fire! (WHOOOOOOSH!!!!) Finally! Take that, you NATO ninnies!
Computer (pauses for several seconds)**:** GENERAL MISSILE DEFAULT. PRESS <Yes> TO RESTART.
Dictator: Hurry! Shut this rotten thing down and boot up our old system!
Computer: SHUTTING DOWN. PLEASE WAIT WHILE MISSILE RETURNS TO SILO.
Minion: Incoming!
Dictator: AAAAAAAAAAIIIIIIIIIIEEEEEEEEEEEEEEEEEEEEEEEEE!!!

As the military integrates more COTS software, there will be some adjustments. For example, we will need additional personnel to update our airplanes, tanks, missiles, and boats so that they can still communicate with each other whenever a COTS manufacturer decides to release a new version of software that has no perceivable advantage over its previous six upgrades (save for a cooler box). To maintain version control, perhaps we will someday see, for example, the F-16.3.11 Falcon fighter ("Now imports all leading spreadsheet formats!") or the M1.22B-Abrams tank ("New patch: turret now turns clockwise *and* counterclockwise!"). They would probably also need several crews to paint and repaint the extra version numbers on the equipment. I'm not sure whether I'm joking about all this or not.

With time and experience, I'm sure COTS software will settle into its proper, most logical uses. But as far as treating COTS as the end-all answer to our cost problems, I say, "Don't count your chickens before they hatch." Or as they say in Brazil, "He does not count its hens before they shock." — Lorin May

Got an idea for BACKTALK? Send an E-mail to mayl@software.hill.af.mil