Post profile

Software engineering is core for future weapon systems

Software Engineering Institute creates satellite office on post

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Typically when people hear the word Army, they think of tanks rolling over rugged hills and soldiers in full battle dress marching off to war.

The image is never an office setting with men and women dressed in business suits sitting at their computers diligently working through lines and lines of software code. But nowadays, before you can see the bombs bursting in air, you've got to get the bugs worked out of the software that keeps the helicopter in the sky, the fire control system in check, and the missile on target.

In this new age, software engineering has become a core component on which the future Army will be built. With that understanding, a partnership has been formed between the Department of Defense funded Carnegie Mellon Software Engineering Institute and the Software Engineering Directorate at the Aviation and Missile Command.

"The basis for the partnership is well-founded," William Craig, director, SED, said during the Software Engineering Institute welcome ceremony Sept. 16 in the Bob Jones Auditorium. "Technology permeates our society. The Bradley has 1.2 million lines of code... the Patriot has 7 million lines of code and it is estimated that the Future Combat System will have more than 10 million lines of code (for one piece of the system)."

Craig went on to explain that the time and resources needed to develop such massive amounts of code directly affects

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NEW PARTNERS— From left, Maj. Gen. Larry Dodgen, commander of the Aviation and Missile Command and Redstone Arsenal, and William Craig, director of Software Engineering Directorate, welcome the chance to partner with Dr. Stephen Cross, director and CEO of the Carnegie Mellon Software Engineering Institute, based in Pittsburgh, Pa.

the cost and fielding schedule of a system.

The mission of SEI, based in Pittsburgh, Pa., is to provide technical leadership to advance the practice of software engineering so the Department of Defense can acquire and sustain its software-intensive systems with predictable and improved cost, schedule and quality. Since its establishment in 1984, SEI's core purpose is to help others make measured improvements in their software engineering capabilities.

By putting into practice new software

engineering technologies offered by SEI the Army benefits in three ways: cost savings through reduced man hours; a reduction in development time and better quality or performance.

"Let's face it, if something takes 100 years to build, even if it's cheap, it's not useful," Craig said. "And you can't write perfect software the first time out but using their techniques to improve our capabilities will cut out a lot of errors from the beginning."

As part of this partnership, SEI has

established a satellite office at SED staffed by Scott Reed, who will not only interface between AMCOM and SEI but will assist in reaching out to contractors, small businesses, other government agencies in the area as well as academia.

"We've been chosen as the first full technology transition partner," Craig said. "We've been users of these developing technologies and processes for 12 years. We believe in it and it has increased our capability level. Now, we can become teachers which will make us even better users of it. We all benefit when a contractor can come up with a better product. We're not having to pay for missed schedules and systems that don't work. We're trying to get all the parties involved to get a better product."

During the welcoming ceremony, Dr. Stephen Cross, director and CEO of SEI, thanked the work force at AMCOM for the mission they perform.

"It was the greatest compliment," he said, "to be described as your partners and colleagues. It's great to be a part of your team."

Maj. Gen. Larry Dodgen, commander of the Aviation and Missile Command and Redstone Arsenal, addressed the assembly, asking all the software engineers present to raise their hands. More than half the audience responded.

"The future belongs to you," he said. "Today our first question when something goes wrong is, 'Can we fix it with software?'" adding that future systems will be designed based on how they interact with the software, making hardware a secondary issue. "If you are a software engineer, the future is yours. We have just taken the first step to give it to you."

For more information about the Carnegie Mellon Software Engineering Institute, contact Scott Reed at 876-0703 or scott.reed@sed.redstone.army.mil.

Special license plates bear emblem of few and proud

Alabama Marines encouraged to help fund-raising effort

Alabama Marines could soon have a unique way to display the time honored Marine Corps emblem.

If a commitment is made to purchase 250 license plates, with a symbol of the globe and anchor, the state of Alabama will start producing them.

Alfred Orillion, local Marine Corps League detachment commandant, said the tags will cost an extra $50 with $41 of that going to a special fund that will help support various Marine Corps League programs. Those pro-

grams include funding for scholarships, youth activities and to lend a helping hand to fellow Marines in need.

Orillion, who leads the Brandon-Wilbourn Marine Corps League Detachment in Huntsville, said Marines are a tight group and he believes his fellow servicemen and women will come through and make this effort worthwhile.

"We'll not only be helping some worthy programs, but we, as Marines, will be able to display one of the world's most recognized military symbols, something we're very proud to be a part of," he said.

Marines who are still on active duty, in the reserves or retired and received an honorable discharge are eligible to buy the tags.

Those who wish to purchase the special license plates are asked to bring proper identification, along with $50, to their county courthouse and fill out an application form. If at least 250 Marines around the state do not apply by Nov. 1, the state of Alabama will return the money to those who did apply.

Orillion invites all area Marines to attend any of the monthly meetings at the Brandon-Wilbourn detachment. The group meets the second Tuesday of every month. Its next meeting is scheduled Oct. 8 at 7 p.m. at American Legion Post 237 on Drake Avenue.

For more information on the Marine license plates or the detachment, call Orillion at 539-5058.