



Website Updates

- ★ New [PORTiCO Poll](#)
- ★ [SIS Functionality by User Roles](#)



The Update

The Update is the official newsletter for status updates related to the student information system (SIS) project at the Defense Acquisition University.

PORTiCO, the official name of this acquisition workforce initiative, is a commercial off-the-shelf (COTS) system that integrates critical capabilities including career training management, schedule development, DAWIA transcripts and reporting.

Select [More Updates](#) to view past editions of this newsletter on the PORTiCO web-site.

TESTING 1-2-3

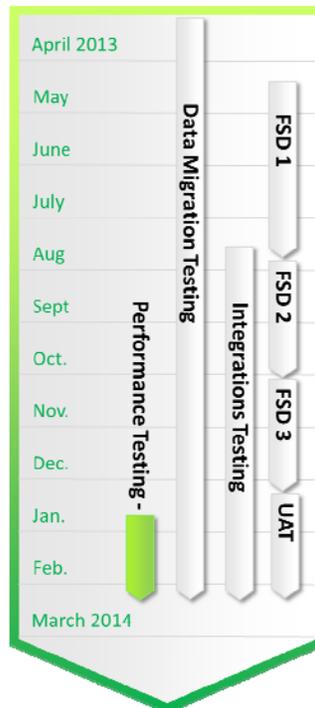
A MULTILAYERED CAKE WITH NO FROSTING

One common misperception of PORTiCO's testing model is that it's an end-of-the-line user acceptance test or UAT. That characterization is akin to thinking of the Cake Boss (Hoboken-based Buddy Valastro) as just another pastry chef.

In reality, testing an en-



Figure 1: PORTiCO Test Schedule



terprise application with many interfaces requires a sophisticated testing program that evaluates an array of attributes including: fulfillment of modular functionality, data integrity, system security, reliability of interface connections, operational performance, and ultimately, user acceptance. As Brian Gaines, PORTiCO's Testing Manager, noted in a spring IPT meeting, "It's no cake walk. It's a complex, iterative, and multilayered effort that's key to our success. Skimp now and we'll pay the price later in user dissatisfaction and helpdesk calls."

There are multiple, parallel testing events taking

place throughout the implementation of PORTiCO. Testing started with the delivery of FSD 1 functionality and will continue until we go live next spring. The various stages of testing include: FSD unit testing, integrations, data validation, security, user acceptance, and performance testing.

Laying the Groundwork

At the foundation of the testing program lies an exhaustive effort to distill test cases—the scripts used by testers to assess functional performance—from the original requirements. That's easy enough to say but this painstaking exercise needs to anticipate all user interactions with the system. In short,

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GATEWAY TO EXCELLENCE...

"Quality is not something you add like salt at the end, it must be baked in". (Anonymous)

“It’s no cake walk. It’s a complex, iterative, and multilayered effort that’s key to our success.”



Continued from page 1: Tried and Tested

test cases are a tall order. “For the basic business application, this activity is challenging enough,” remarks Mr. Gaines, “but an enterprise platform with over a thousand test cases adds much more complexity and demands far more coordination.” Each “feature set delivery” (see Figure 1) will launch a renewed effort to test functionality and test cases will be at the center of the effort.



Data Validation

Parallel to this activity, IT and subject matter experts conduct data validation to gauge whether the source data is populating the appropriate fields within the SIS and ensuring that this data is displaying as intended. This lengthy process requires many cycles to safeguard data integrity.

Last month, SMEs dedicated two weeks toward confirming the integrity and accuracy of the data (schedule, course, class and faculty) being processed by these early modules. “Without checking the flow of data from system to system,” noted Rick Lux, a member of the data validation team, “we risk losing user confidence at the start. That’s a risk we must manage.”

This initial foray into data validation was positive and insightful. There will be plenty more to come.

The Dating Game

As system interfaces and APIs (application programming interfaces) are developed and deployed, one more layer of testing gets underway. The next layer, Integrations Testing aims to confirm that the technical specifications for each interface have been fulfilled and that PORTICO can effectively interact and exchange transactional data with its partner systems. It’s a bit like a Dating Game only more tedious.

Lock & Load

Beyond data, the SIS Testing Team is also focused on security and performance. The former, defined by the Federal Security Management Act of 2002 (FISMA) framework, requires PORTICO to document its compliance against this rigorous standard.

To obtain an Authority to Operate (ATO) the system requires a number of steps including software vulnerability scans with each installation of software. The scans detect any vulnerability in the software (or its configuration) and these inspections trigger the necessary adjustments before any IT asset is endangered. Although the scans merely represent one small step in our overall security readiness, it’s a good example of the painstaking level of effort demanded.

Performance testing—or assessing the resource usage and scalability of a system—comes near the end of



the testing timeline. The timing for performance testing is dependent on a fully functional system so that all key use cases can be tested from end-to-end. We will also conduct load and stress testing under the broad umbrella of performance testing. These two assessments, respectively, are meant to ascertain volume limits of the system, and its ability to fail and recover successfully.

Users Chime In

While the performance tests get underway, select end-users and stakeholders will get their opportunity to test functionality specific to their roles. This user acceptance testing (UAT) is the final hurdle before deployment.

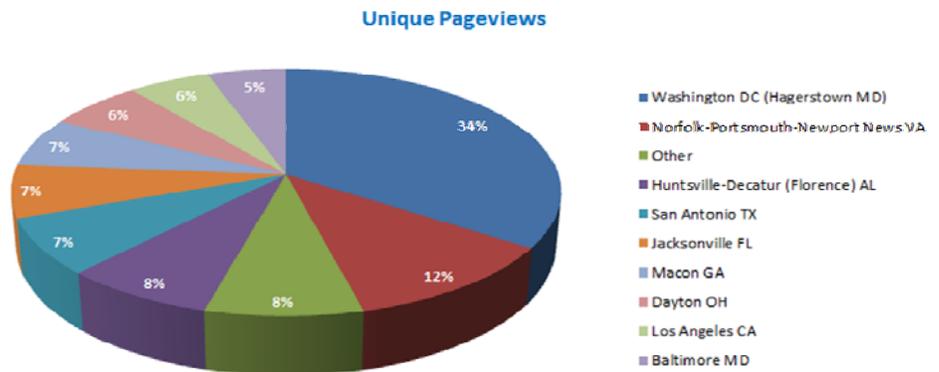
After receiving basic training on testing objectives and protocol, these UA testers will help the PORTICO team refine the student information system in time for launch. This refinement will come by way of running prepared test scripts as well as conducting ad-hoc tests on the system. This final stage of testing will be an iterative cycle of issue discovery, issue remediation, and regression testing to ensure a closed loop solution.

The multilayered effort reflects a commitment to deliver a quality product that users will embrace. ★



WEB ANALYTICS FOR PORTICO WEBSITE ACTIVITY BY METRO AREA

Metro	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit
Washington DC (Hagerstown MD)	1368	68.02	182	40.66%	16.01%
Norfolk-Portsmouth-Newport News VA	460	60.18	37	29.73%	17.49%
Other	323	40.19	26	73.08%	14.22%
Huntsville-Decatur (Florence) AL	311	85.75	11	36.36%	10.54%
San Antonio TX	293	87.07	19	21.05%	20.53%
Jacksonville FL	271	37.62	11	36.36%	7.78%
Macon GA	259	36.48	11	0.00%	9.20%
Dayton OH	256	74.00	26	42.31%	13.49%
Los Angeles CA	219	28.76	11	36.36%	8.67%
Baltimore MD	211	80.14	4	0.00%	9.49%
Totals	6889	62.56	488	41.80%	13.78%



PORTiCO Project Events & Key Dates

July 2013

August 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29	30	31

Select a date to view events and milestones on the project website—www.dau.mil/sis



To keep abreast of PORTiCO's progress or to provide your feedback, visit the website at www.dau.mil/sis, read monthly updates, or contact your IPT representative.

Next edition of The Update arrives in September 2013