

UIS Optimizes Speed, Efficiency and Quality of Application Testing ^[1]

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One of the ways UIS ensures a stable and effective technology product for students, faculty and staff is through our extensive Quality Assurance (QA) testing process. UIS's QA team is responsible for a variety of different performance types of testing to ensure systems are ready to provide the critical functions of the university. The team is always on the lookout for new tools and testing best practices to streamline processes and make testing more efficient and effective. Learn about the new automated testing process UIS recently implemented to improve performance and expand application testing capabilities.

The QA team performs smoke tests. Smoke Testing, also known as "Build Verification Testing", is a type of software testing that comprises of a non-exhaustive set of tests that aim at ensuring that the most important functions work. The results of this testing is used to decide if a build is stable enough to proceed with further testing." Definition from [Software Testing Fundamentals](http://softwaretestingfundamentals.com/smoke-testing/) at <http://softwaretestingfundamentals.com/smoke-testing/> ^[3] testing during service maintenance windows, which ensures the most important features included in the maintenance work as expected. To improve efficiencies in this area, the QA team began a project to transition to HP's Unified Functional Testing (UFT) automated test software in January 2016. The new UFT process allows the QA team to automate several frequently-executed tests, improving speed to completion, quality of results and efficiency. It also reduces the number of campus and UIS resources needed



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To date, many frequently-executed tests haven been automated. These include:

- Constituent Relationship Management (CRM)
- CU Student Integrated Systems (CU-SIS) applications, including Campus Solutions (CS), Degree Audit and Transfer Credit (DATC), International Student and Scholar System (ISSS), Nelnet and Online Admissions Offering (OAO)
- Electronic Research and Administration (eRA)
- Enterprise Document Management (DMS)
- Enterprise Portal (Portal-EP)
- Several business applications, including ImageNow (DMI), JIRA, LegalFiles, Phire, SharePoint, TeamDynamix and TeamMate

For the remainder of the 2016 calendar year, Marina Durbin, Senior QA Engineer, will focus on automating CU Reporting (Cognos) and Master Data Management (MDM).

During the first quarter of 2017, the focus will be on automating the remaining applications, including CS Mobile, Finance (FIN) and Human Capital Management (HCM).

In addition to automating individual application smoke testing using UFT, the team has an ongoing effort expanding all functional test suites using this tool. They are also changing the test results communication approach. Rather than QA team members manually sending results, the UFT application will be set to automatically publish them for review.

Transitioning to automated testing using UFT was a critical step toward the continued success and dependability of the applications UIS maintains. UIS's QA team will continue to find new and better ways to improve UIS's testing processes to ensure a seamless user experience of our technologies.

Want to learn more about UFT? Contact the UIS Service Desk at help@cu.edu ^[5] or 303-860-help(4357).

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