Web Development: It’s Not a Bug, It’s a Feature

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**Website Migration To Sitecore**

Nothing is permanent. Though digital products may have an immaterial quality to them, software and websites have a shelf life. Websites only exist to support missions, and when a mission outlasts its web technologies, a migration is necessary. During a migration, we assess the website and move it to a new platform. I have been assessing a website for migration to Sitecore, KSC’s content management system.

Web Scraping is the technique of using a computer program other than a web browser to access websites, in order to collect all or some of the data. In this case, I used a program called a web scraper or spider to collect a complete listing of the files and directories of one KSC website. This information helps our customer to make determinations about what files are still in use, which files need to be archived, and which can be safely discarded.

**Excerpt of Python Code (Above)**

This web scraper, written in Python, does not take much code. The secret to its effectiveness is running the code recursively over the target website’s 1,800+ subdirectories.

**Website Directory Tree (Left)**

This tree of a KSC website was generated with data gathered by the web scraper. Every vertex represents a directory, and the connecting lines indicate a directory’s contents. The web scraper recursively explores every subdirectory until the entire site has been indexed. This particular website had 1,699 subdirectories.

Following my investigation, we were able to categorize the contents of the website to separate relevant content from historical and out of date content. For a site of this magnitude, it’s crucial that we only spend effort migrating content that is still of value to the organization.

**Acknowledgements**

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**SESS / CFC Applications**

For a new developer in any organization, starting from scratch can be daunting. Instead, I’ve been assigned to fix bugs or build enhancements for some existing software. This has given me the chance to learn my branch’s coding standards and tools of choice without the pressure of creating a brand new application.

**CFC Administration Application**

The Combined Federal Campaign (CFC) runs every year to collect charitable donations from civil servants. The CFC application tracks “Quality Contacts” to help Key Workers locate uncontacted employees. The application also presents tables of data and an appealing thermometer graph to keep users informed.

**Sprint Evaluation Surveillance System**

The RIAC contract is responsible for much of the software development on center, and it is the role of my branch to assign the work appropriately and then monitor its completion.

The Sprint Evaluation Surveillance System (SESS) is a web application to track all software development sprints currently in progress. During and after each sprint, development goals can be tracked, changed, and reviewed. This was an excellent choice of software assignment for a new member, because not only am I developing a piece of software, but also learning the processes our branch is responsible for.