Background

The IT Accessibility Guidelines Work Group – originally formed to create a UC Web site to provide UC Web developers with accessibility resources – recommended that the University investigate the utility of purchasing Web accessibility testing tools for Web developers. The group issued an RFI in Fall 2007 but received only three responses. Subsequently, funding was obtained through the UCOP Be Smart about Safety (BSAS) Program to use to evaluate testing tools. To determine what products to purchase and test, the Work Group reviewed the RFI responses again and other rankings of testing tools, and recommended that UCOP evaluate Deque Systems, Inc.’s proprietary testing products. The overall goal of the testing project was (1) to determine if testing tools are significantly useful to Web developers and (2) whether obtaining testing tools for UC Web developers should be a key component of a systemwide accessibility initiative. Information Resources and Communications (IR&C) at UCOP coordinated the testing project.

Initiating the Project

In fall 2009 UCOP negotiated with Deque (a) to purchase 22 copies of the RAMP Ascend desktop tool (two licenses per location), a more sophisticated tool than the free versions Deque offers, and (b) to allow three users per UC campus to use the Web-based Worldspace enterprise tool for six months. Deque hosted the UC users on its server.

Participants: Volunteer testers were sought through the UC IT Leadership Council. Thirty-six testers were named, two to four per campus.

Training and Communications: Deque staff demonstrated the two products via the phone and the Web. Testers were able to submit questions and comments via a Web-based issue tracker application. Technical questions were forwarded to Deque staff. A listserv and periodic conference calls facilitated communication among the participants.

Testing

Campus users tested the Deque tools against their own Web sites. A subset of participants developed a set of criteria against which to evaluate the products. At the end of the testing period a survey was administered that asked users to comment on how the products met each of the criteria. Thirteen testers responded to the survey.
Conclusions

(a) RAMP Ascend
The desktop-based RAMP tool was deemed too problematic to be useful. When first developed it was considered innovative. Now it is outdated and difficult to use. In general, any desktop tool is less useful than an enterprise tool because it must be installed separately for each user and cannot be centrally managed or licensed.

(b) Worldspace
Worldspace was found to be potentially quite useful, though it takes a good amount of knowledge about Web accessibility to make the best use of it.

Quote from Tester: “I would like to empower our developers to do more of their testing on their own, lowering the effort-required bar, and thus making at least the first-level accessibility testing more ubiquitous on campus. However, with Worldspace, the learning curve for this product is too great for average users to invest the time in it on their own. So that means extensive training sessions and they would probably need that training each time they redesigned their site (if they are not responsible for more than a few sites).”

General Feedback and Recommendations from the Testing Experience
Testers also were asked to generalize their experience using the Deque products to assess whether other testing tools might be valuable, what the University should do in terms of acquiring tools for developers, and in general what insight they might provide into how best to advance electronic accessibility at UC. Several overall recommendations emerged from the evaluation.

- **Tools**: There was a strong sense that free tools are just as good as proprietary desktop products. There was strong support for developing specific UC recommendations for free tools for developers to use. Only a few testers recommended that UC pursue negotiated pricing for a selection of tools. One tester noted that different kinds of tools are needed to advance accessibility goals: (a) intuitive tools for developers and content editors untrained in accessibility, (b) intuitive tools for graphic designers untrained in accessibility, (c) tools to transcribe and synchronize media content, and (d) tools geared for accessibility experts for evaluating compliance and generating reports.

- **Policy or Standards**: Testers said that they need UC to set accessibility standards (or policy) so they know what compliance level they should meet. One tester mentioned that a “system for scoring or ranking the accessibility of sites would be helpful.”

- **Senior Level Commitment**: UC management needs to support and require accessibility. One tester noted that “tools will evolve, but tools won’t be used unless there is a compelling reason.”

- **Education Campaign / Information Sharing**: Testers noted that educating developers about the importance of accessibility is key to getting them first to learn how to use and second to actually use testing tools. Suggestions included workshops at each campus, a mandatory Webinar (along the lines of the ethics training), and general publicity about why accessibility is important to the business (e.g., accessibility and search engine
optimization go hand in hand). Testers also recommended that campuses name “accessibility experts” who are charged with continuing to educate developers about the importance of accessibility. Other testers suggested Web developer forums, or a UC-wide accessibility discussion area, or even a recharge support group for developers and end users.

- **Specific Evaluation Training**: Testers commented they need training to use and get the most from the testing tools. Just providing tools isn’t enough.

**Other Considerations**

The recommendations are not unexpected and indicate that several tracks should be pursued simultaneously to make real progress with Web accessibility at UC. Addressing one recommendation alone won’t be sufficient. For example, Web developers need education to understand why accessibility is important, and technical training in how to make sites accessible, but they also need their managers to be committed to accessibility and provide resources for training. Many managers also would benefit from education to understand the importance of accessibility, but many need a policy to motivate them to prioritize accessibility, spend resources, and thus demonstrate their commitment. Web developers seek standards so they can more easily aim for a goal, no matter how committed they are personally to accessibility, and yet standards may be more persuasive if backed by the mandate of policy.

When specifically addressing how to encourage Web developers to strive for accessible Web sites, the testers’ comments suggest that barriers to accessibility are (1) the complexity of the testing tools themselves, and (2) a lack of understanding on the part of many Web developers about what it takes to make a site accessible. Thus training in accessibility (problems to watch out for, specific technical steps to take, and the philosophical understanding of the value that an accessible Web site has for not only disabled people but all users) may be a precursor or a critical parallel track to pursuing the widespread use of testing tools. Training in using the tools may also be important.