

Harvard Library Lab

Shifting Tool Project

Interim Report #2: June 1, 2013

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Overview: The Shifting Tool Project is an effort to create a software tool that can inform library staff of the time and resources required for a shift of materials, the relocation of books and other items housed in library stacks from one area to another. The project team envisions a user interface from which librarians can enter a call number range, and get back a measurement of linear footage. With the further input of the time it would take to physically move the materials from point A to point B, it is intended that the tool can then provide a time estimate to complete the job, expressed in person-hours; that resulting estimate could be customized by changing various parameters available for the task. For example, a shift that the tool determines would take 200 person-hours to achieve could be handled by one person working 200 hours, 2 people working 100 hours, four people working 50 hours, etc., giving librarians options regarding the amount of resources to devote to a project in order to complete it within a given time-frame or budget.

Please refer to the project interim report of 3/1/2013 for development progress as of that date.

Technical Requirements: Determining the technical requirements for the Shifting Tool continues to be an ongoing process. Upon settling the necessary datapoints for deriving linear footage of a given call number range (pagination from the MARC 300 | c subfield and the number of volumes from holdings/item data), work began on a means for accessing this information. After a number of strategies were explored, including attempts to extract data from the item record, and the possibility of gaining item information employing a COGNOS report, project developers learned that the Library Cloud¹ team was willing to customize an API that would feed data to the Shifting Tool. As of 5/22/2013, data was being tested using this approach. While the results of this testing, employing LC call number ranges found in the collections of the Loeb Music Library have not yet been examined, the team believes this is the most promising direction.

Progress has also been made in creating a conceptual user interface (GUI) upon which the Shifting Tool project team has agreed. At this stage of the tool's development, the team has decided that any graphic representation of the shelf moves should be put off until the

tool reaches an operational stage of proof of concept, which necessitates that the GUI be fairly simple.

Collection Shifting Tool: Basic Concept GUI

Enter Library and Collection:

Library (3-letter code) Collection Code

Enter LC Call Number Range:

Beginning End

Result: linear feet

Enter time (in minutes) to move materials from origin location to destination location:

minutes

Result: person-hours to achieve shift

Process and timeline: The next steps will be to make a final determination as to whether the Library Cloud API will serve the needs of this tool, and then, once this milestone has been achieved, move forward with coding. Another action item at this time will be to start testing the time required to load a pre-determined linear footage of library items from the shelf onto a booktruck, and the time to unload the truck onto a representative destination shelf. Based on this testing, an average time component can be derived. As can be noted from the conceptual GUI, users of the tool will have to hand-time how long it will take to physically move a loaded booktruck from the origin to the destination shelf, a variable to be input into the tool each time by the user.

The project group continues to be enthusiastic about the potential for this tool. We will likely be able to use Loeb Music collections for future testing, and we hope that data from a previous shift in the Divinity School library will serve as a reference against which our work can be compared and measured for accuracy. In addition, we will continue to look for a test project somewhere in the Harvard Library to test and refine the tool once we have reached beta stage. As mentioned in the 3/1/2013 interim report, the team continues to believe that there shouldn't be any major obstacles toward meeting upcoming deadlines under the grant program.

As always, the project team is indebted to the Library Lab staff, as well as the Arcadia Fund, for supplying the support and resources needed to develop this project.

Respectfully submitted,

Andrew Wilson, Project Manager

¹ <http://www.librarycloud.org/>