Information Services & Technology

MITBI Usability Testing Round II

Usability study conducted at the request of Amon Horne
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1 Executive Summary

Five members of the MIT community came into N42-237 to provide feedback on the MITBI application. The SUS for round two testing resulted in a score of 55.83 with two scores that were outliers. Excluding these two scores results in a higher score of 68.33 based off of a mere three participants. Either way, the SUS is still below acceptable standards as a SUS score of 65 or below is correlated with atrocious usability for complex systems and this system as it stands now is not as complex as SAP or other ERP systems.

2 Task 1

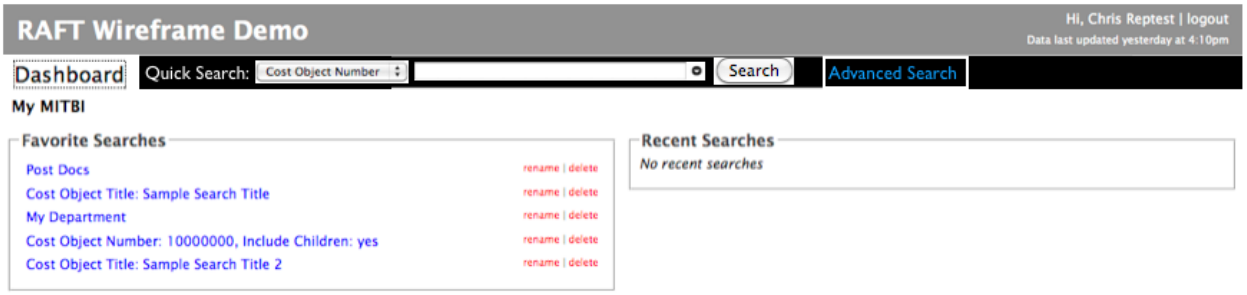
You are working on multiple versions of the budget for the cost object I1137800, and the associated child accounts. Using version 001 of your budget, you need to review the actual expenses for Travel and review any notes associated with Michael Ames' travel to Tucson.

2.1 Search

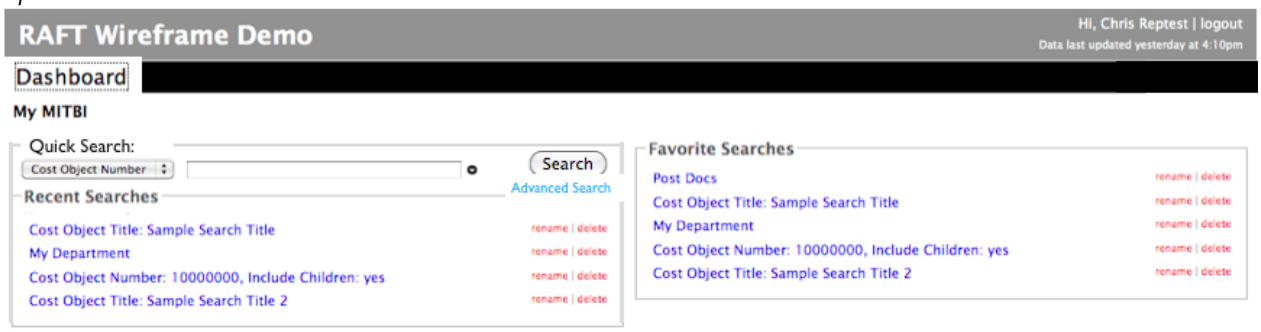
The largest impedance to this task was participants finding how to perform a search for a cost object. Despite the scenario text explaining that the dashboard was non-active and personally discussing it with one participant, users still saw the text "Search" as a heading to the options listed in Favorite Searches.

Recommendation: We recommend redesigning this interface to allow users to search from the dashboard. As noted from the last test this is another option to increase efficiency by moving search capabilities to the dashboard as demonstrated below.

Option 1



Option 2



By placing a quick search on the Dashboard we prevent having to mouse to the search link (1.1 seconds), one mouse click (.1 second), and having to wait for the page to load (.5 seconds) which saves 1.7 seconds for every search from the Dashboard.

2.2 Searching with a letter; "I".

All five participants noted that they do not search with letters in front of the GL code. Comments form the participants include:

- "I never use letters."
- I asked do you search with letters? "No, it's all numbers."
- "Nothing I use requires a leading letter."

By removing the leading letter requirement we will reduce training needs as the interface will work the way users expect it to, and create an additional efficiency by users not having to retype their cost object number after realizing no results come up due to the omit the alpha character.

2.3 Ellipses' in Detail Drill down

At present the fields are fixed width, which prevents full disclosure of field information. Fields end with an ellipse which participants thought they could drill down into to see the full text. Participant's expressed two solutions to this issue, the first is a mouse over which allows the user to see the full text and the second solution is to open the line record they are drilling down in to see the full record.

Recommendation: We advocate for a combined solution here. By providing full field details on mouse over you'll address participant needs when a single explanation is needed from a field. However if the participant needs to review the entry by using mouse over only it would place a tremendous load on working memory. Therefore it would make sense to do mouse over and drill down so that the user can see the whole record entry and print it out in full detail.

2.4 Additional Task Feedback

- One participant called the Help Desk because she was trying to click on the text "Travel" rather than the number listed under Actuals. This was a minor issue as it was only encountered once during the testing and the user didn't repeat the action.

- One participant technically didn't complete the task as s/he was using the wrong budget version.

3 Task 2

Using the same cost object and budget version, there are $74,274.29 funds in commitments. One of the GL's associated with the commitments is 420162. What PO is associated with the $2,686.00 expense?

3.1 BUG

During task 2 was when users clicked to get details it also showed details for other GL's as well. Apparently this was a bug according to the development team.

4 Task 3

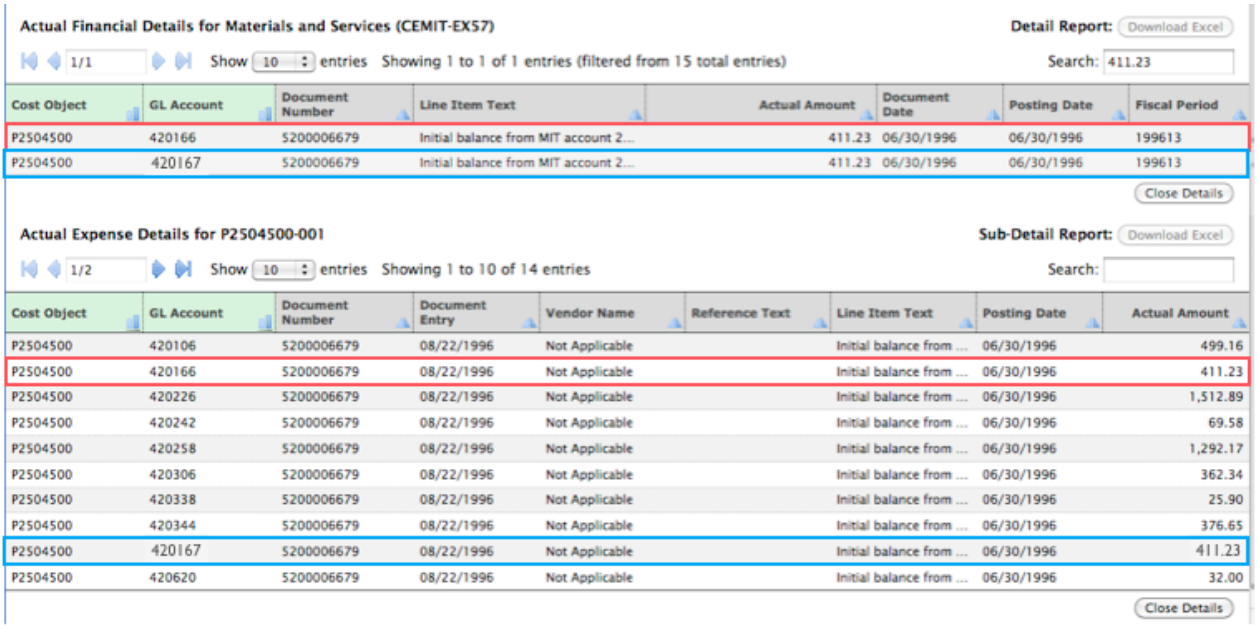
Using the same detail expense, what is the item description associated with the $7,270.00 amount?

4.1 Wrong level of Search Functionality

Users generally struggled with this task. One participant didn't complete the task, another tried to use Control + F as a solution initially, and others had to be walked through the process. In general users tried to use the Search function on the first drill down table thinking this could search all line items. The user experience is reflected in the low ratings for ease of use.

We recommend changing the way the search works to adapt to users expectations. From discussions this may result in more then one result but by doing a search at the first level and having it search the details we'll transfer from having users having to drill down within a GL to being able to search whether the charge is in the proper GL or not. An example is mocked up

below. In this example I mocked up a search fro 411.23 and there are two charges within two different GL's. This transfers the burden from the user to the system.



Actual Financial Details for Materials and Services (CEMIT-EX57)

Detail Report: Download Excel

1/1 Show 10 entries Showing 1 to 1 of 1 entries (filtered from 15 total entries) Search: 411.23

Cost Object	GL Account	Document Number	Line Item Text	Actual Amount	Document Date	Posting Date	Fiscal Period
P2504500	420166	5200006679	Initial balance from MIT account 2...	411.23	06/30/1996	06/30/1996	199613
P2504500	420167	5200006679	Initial balance from MIT account 2...	411.23	06/30/1996	06/30/1996	199613

Close Details

Actual Expense Details for P2504500-001

Sub-Detail Report: Download Excel

1/2 Show 10 entries Showing 1 to 10 of 14 entries Search:

Cost Object	GL Account	Document Number	Document Entry	Vendor Name	Reference Text	Line Item Text	Posting Date	Actual Amount
P2504500	420106	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	499.16
P2504500	420166	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	411.23
P2504500	420226	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	1,512.89
P2504500	420242	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	69.58
P2504500	420258	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	1,292.17
P2504500	420306	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	362.34
P2504500	420338	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	25.90
P2504500	420344	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	376.65
P2504500	420167	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	411.23
P2504500	420620	5200006679	08/22/1996	Not Applicable		Initial balance from ...	06/30/1996	32.00

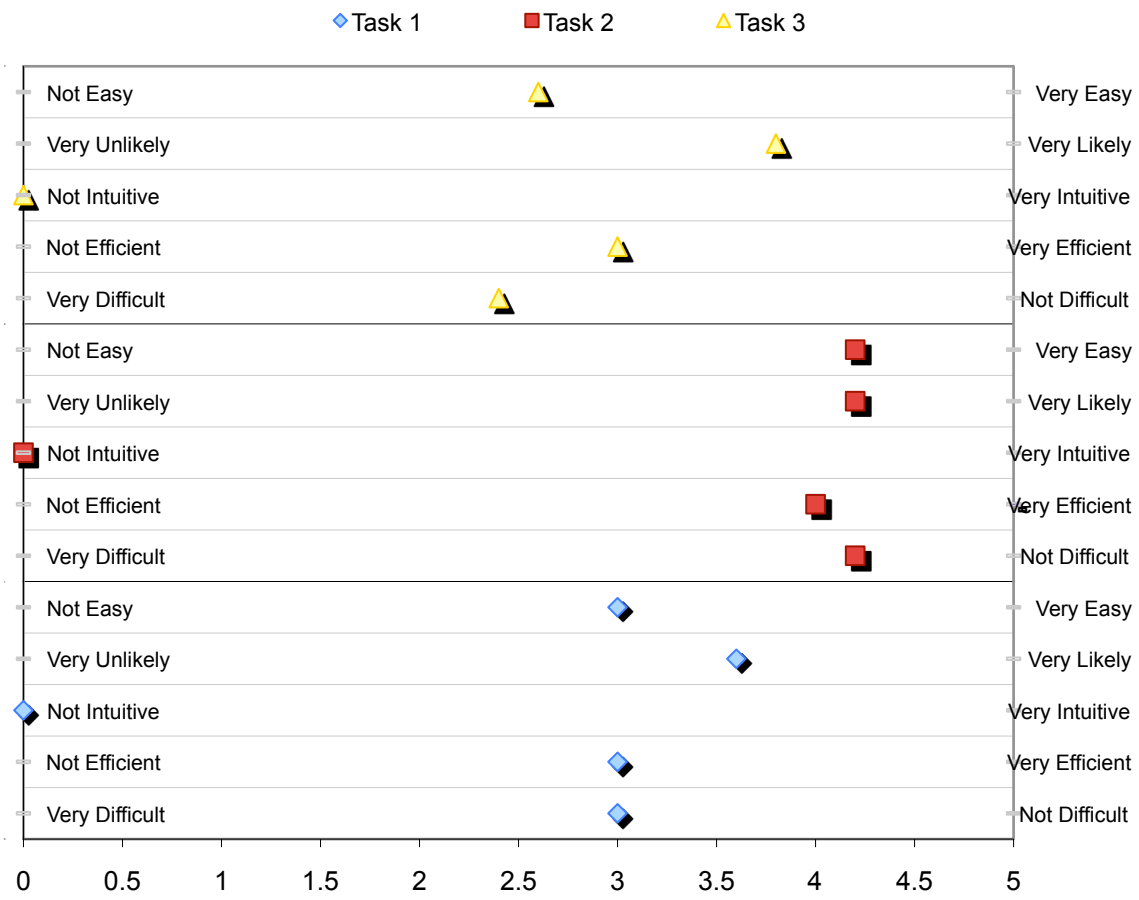
Close Details

5 Usability Feedback

5.1 General Feedback from Usability & Clients

- Bold Major categories, Expenses and its first level sub-categories (Indirect / Direct / Operating Expenses).
- As noted in the first usability report, if a user searches for a Cost Object that cost objects details should automatically be loaded. This simple change saves a tremendous amount of time over the searching and loading of 112,000 cost objects.

6 Stats


Task 1
Task 2
Task 3
Not Easy
Very Unlikely
Not Intuitive
Not Efficient
Very Difficult
Not Easy
Very Unlikely
Not Intuitive
Not Efficient
Very Difficult
Not Easy
Very Unlikely
Not Intuitive
Not Efficient
Very Difficult
Very Easy
Very Likely
Very Intuitive
Very Efficient
Not Difficult
Very Easy
Very Likely
Very Intuitive
Very Efficient
Not Difficult
Very Easy
Very Likely
Very Intuitive
Very Efficient
Not Difficult
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5