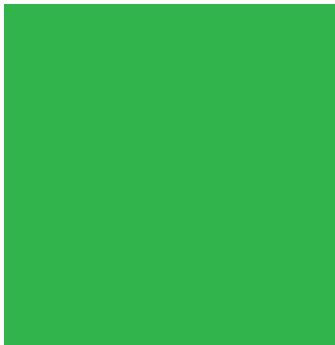**TaxCut Usability Study**

finalreport

H&R BLOCK
TaxCut
Every Deduction Counts

Walker Hamilton

Anica Jovanova

Chris Lam

Almond Loh

Executive Summary

Tax Cut has many deficiencies which cause it to have some substantial usability problems. The most evident flaw is in the design of the navigation of the system. Every user found it extremely difficult to navigate the program and re-enter vital tax information. Tax Cut does, however, have certain functions and features that were found to be quite useful, including the help functionality of the system. This report outlines five usability tests which produced significant results, findings, and recommendations. Adherence to the recommendations would improve the overall usability of Tax Cut.

Positive findings:

1.   Help links and help menu were both extremely useful. All five users commented on the ease of use and usefulness of the help files provided by Tax Cut.

2.   Most users found the program generally easy to use and generally easy to navigate.

Findings for improvement:

1.   It was difficult for nearly every user to edit information, or add information to a specific section.

2.   Ambiguity at the end of each section made it confusing and frustrating for users.

3.   Progress bar frustrated users, rather than encouraged them to finish.

In summary, the team found several positives throughout the program from the usability tests that were conducted. Further, the team also found that there were several areas in which the program was ambiguous and a bit confusing.   Users felt that the program was relatively easy to use, but there were certain specific sections of the software that caused problems in a majority of the users.

Based on both the quantitative and qualitative findings, our team has come up with some specific recommendations that would improve the overall ease of use and effectiveness of the software.

Recommendations	Importance
1. Create a more specified summary page where a user can expand certain sections and be able to locate exactly what they are looking for in order to make corrections or simply review their entry.	**High**
2. Turn the statement at the end of each section into a question to say, "You have already entered a _____, do you have another _____ to report?	**High**
3. Correct the progress bar to resemble actual progress.	**High**
4. Create a "save" function that is separate from the "quit" function and make it a more promi-nent color, such as red in order to be easily found by users.	**High**
5. Provide samples for few different scenarios (different types of employees with different types of deductions) so that user will be able to learn from it and feel more confident when entering their data into certain fields.	**Medium**
6.Make links blue and underlined, the way traditional links appear.	**Medium**

Table of Contents

1. Introduction

This report outlines the usability tests conducted for the Usability testing and Research course at the Illinois Institute of Technology. The report focuses on Tax Cut, an online tax program developed by H&R Block, and contains the following information.

Introduction - provides an overview of the product tested and outlines the objectives for the usability test.

Methodology - describes the participants' demographics, the test procedure, schedule, tasks, and data collection method.

Results and Findings - includes the qualitative and quantitative findings that result from the data analysis.

Recommendations - Reports recommendations from the data collected

Appendix - Includes documents utilized during the usability tests including a blank copy of all testing materials.

1.1 About the Product

Our testing group used the TaxCut Online Premium version of TaxCut Online, which for the tax year 2005, had a cost of $29.95. It is accessible through the tax section of H&R Block's website: www.hrblock.com/taxes/. This particular version of TaxCut Online was chosen to suit our targeted audience - independent consultants. To avoid cost, our group used the 30-day free trial of the program to perform the usability tests.
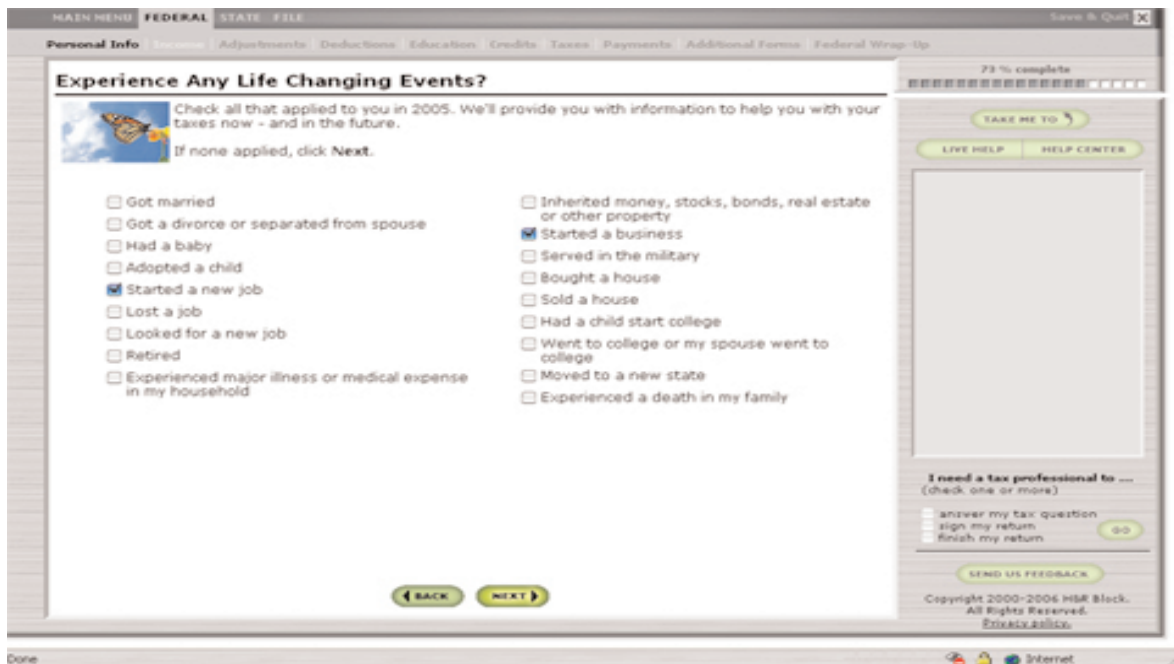
Figure 1.1: TaxCut homepage

Figure 1.2: TaxCut Premium Online Intro Page

1.2 Objectives

The main goal for conducting this usability test was to examine the effectiveness, ease of use and accuracy of TaxCut Online, a web-based application for tax preparation that corresponds to the TaxCut software sold on CD-ROMs. Specifically, this test focused on evaluating how usable the software is with self-employed individuals working in the area of independent consulting.

The scope of this study is completion of federal tax returns only, as it does not examine the process of filing for state tax returns. This was done to limit the overall time of the usability test.

This test is an independent study conducted as a class project for Usability Testing and Research course taught by Professor Susan Feinberg at Illinois Institute of Technology. This study is not sponsored or supported by the developers or designers of the TaxCut, nor do they have any knowledge about this research.

2. **Methodology**

Since tax-related information is considered to be confidential, we did not ask our users to use their own personal tax data. Instead, we provided them with background information about the type of individual they are filing taxes for; along with all the required documents for tax return completion.

The users were asked to complete a consent form before beginning the test. They were also briefed on the premise and scope of the usability test.

2.1 Participant Demographics

The target users for this test were independent consultants from the ages of 21-35. For the purposes of this test, participants interested in pursing independent consulting as a career path were also accepted. Five participants that met the testing requirements were used for this test. The participant profile was designed to gather the pertinent data and to create a homogenous user population. Users were required to have some computer experience and literacy. Further, users who were deemed experienced with the Tax Cut software were excluded from the test.

The reason for choosing independent consultants was to find a group of people who were familiar with filing federal income taxes. Further, owning a business provided further stipulations during the use of the tax software, making a more complex process than a non-business owner. Table 2.1 summarizes the demographics of the users.

User	Age	Gender	Occupation	Computer Usage	Tax Experience
Roger	31-35	M	Independent Contractor	10 years plus	Accountant
Vilas	26-30	M	Consultant	10 years plus	Prepared his own taxes
Nathan	21-25	M	Independent Contractor	10 years plus	Prepared his own taxes
Dave	35 plus	M	Independent Contractor	10 years plus	Accountant
John	21-25	M	Independent Contractor	10 years plus	Accountant

Table 2.1: Participant Demographics

2.2 Test schedule

The test planning phase began on February 16, 2006. The members of the Usability testing and research course were divided into four major groups, each responsible for a different part of the usability test: the recruitment group, the project management group, the data collection group, and data creation group. All documents were in the final form on March 3, 2006.

The actual usability tests began on March 9 and finished March 18. The data was collected and this report was written in the subsequent week. Table 2.2 summarizes the test schedule.

Date	Start Time	Location	Subject	Facilitator	Observer
March 9, 2006	2:00pm	User's Home	Roger	Chris	Almond
March 9, 2006	7:30pm	UTEC	Vilas	Ani	Almond,Chris, Walker
March 11, 2006	12:00pm	User's Home	Nathan	Walker	Almond, Ani, Chris
March 18, 2006	1:00pm	User's Home	Dave	Chris	Walker
March 23, 2006	2:00pm	User's Home	John	Almond	Chris

Table 2.2: Test Schedule

2.3 Test Procedure

Our usability test consisted of three main parts:

1. Participant Questionnaire

We started our usability test by asking our users to complete a participant questionnaire, which had a role of collecting user data such as demographics, level of computer literacy, previous experience with tax preparation software and expectations for our particular software - TaxCut.

2.   Core of the usability test

This portion of the test was the most important one and consisted of the actual process for filing federal tax returns.

The test started with the facilitator reading the scenario to our users, asking them to spend few minutes browsing the tax-related documents provided to them in order to become familiar with the persona they are to adhere to during the test. Then, the facilitator asked that the user to utilize a "think aloud" protocol, in which the user provides verbal feedback during the test. There were six major tasks designed to cover the scope of the software:

1.   Enter personal info, income, expenses and deductions which included: Contact/Personal Information, Part-time Job Info (W2), Home, Business Income (1099), Business Expenses, Business Deductions Health Insurance, Education Expenses and Deductions, Other Miscellaneous Income, Itemized Deductions (Office Supplies, etc…)

2.   Save your work and leave the website
        - Save
        - Log Out

3.   Continue filing your taxes
        - Log back in
        - Find place where left off

4.   Add $1000 to business entertainment expenses
        - Locate entertainment expenses
        - Add $1000 to figure

5.   Complete data entry until finished
"   Follow software to completion

6.   Write down tax owed or refund

While the user completed the above tasks, the facilitator guided him/her through the test. Further, our team had at least two observers that recorded the time, success rate, and other interesting occurrences for each usability test. In a few cases video camera and Camtasia software was utilized to capture the users reactions and interactions with the software.

3.   Debriefing Questionnaire

Lastly, our users completed a post-test survey through which they had the chance to express their experience using TaxCut Online for tax preparation. This section of the test gave us the qualitative aspects of usability test for this program. It served as a way to find out about our users' level of satisfaction from their experience with TaxCut Online.

3. Results and Findings

This section provides a concise summary of the qualitative and quantitative results from the usability tests. Data was taken from the debriefing questionaire, data collection sheet, and user comments.

3.1 Quantitative Results

The following table depicts the time users spent on each task in attempt to complete it. Time was recorded in minutes. The red X signifies either partially completed or failed task which is in some cases followed by parenthesis and a clarification. For example, the reason user 4 has a sequence of X's is that TaxCut Online program crashed, resulting in failure of all the subsequent tasks.

Elapsed time for each task (in minutes)	User 1	User 2	User 3	User 4	User 5
Contact/Personal Info	7	4	6	7	6
Part-time job	5	4	6	5	6
Home Business Income	14	14	13	15	9
Business Expenses	5	11	5	8	5
Business Deductions	5	6	X	X (Program Crashed)	10
Health Insurance	1	4	X	X	1
Education Expenses and Deductions	2	3	2	X	2
Other Miscellaneous Deductions	X	X	X	X	1
Itemized Deductions	X standard deductions	X standard deductions	X standard deductions	X	X standard deductions
Save and Logout	1	1	3	X	1
Find place where left off	1	X	X	X	1
Locate entertainment expenses	X	X	X	X	3
Add $1000 to figure	X	X	X	X	1
Follow software completion	3	1	1	X	3
Tax owed or refund	$13,887	$5,372	$1,051	X	$2,552

Table 3.1: Quantitative Results

Table 3.1 depicts the results we gathered during the test. The most striking result occurs in the "other miscellaneous deductions" category where only 20% of users (1 out of 5) successfully completed this section. Another striking result was that 0 out 5 users were able to list itemized deductions.

The results regarding re-entering the program and editing information were striking. When asked to find the place where they left off in the program, only 2 out of 5 users were able to complete this task. Further, only 1 out 5 users were able to locate entertainment expenses within the program. Similarly, only 1 out 5 users was able to add the $1000 figure to the entertainment expenses.

Finally, the most obvious results can be seen in the last line of the table. Our range of tax owed was from $13, 887 to $2,552, a total range of $11,335. This huge range of numbers tells us that there was an inherent problem in either the usability design, the software, or a combination of both.

3.2 Qualitative Results

Figure 3.2 shows the results of the debriefing questionaire. It outlines the average responses for all fifteen questions presented to the user. It provides a general overview of the users' attitudes towards the software. A synopsis of each users' attitude is also provided.
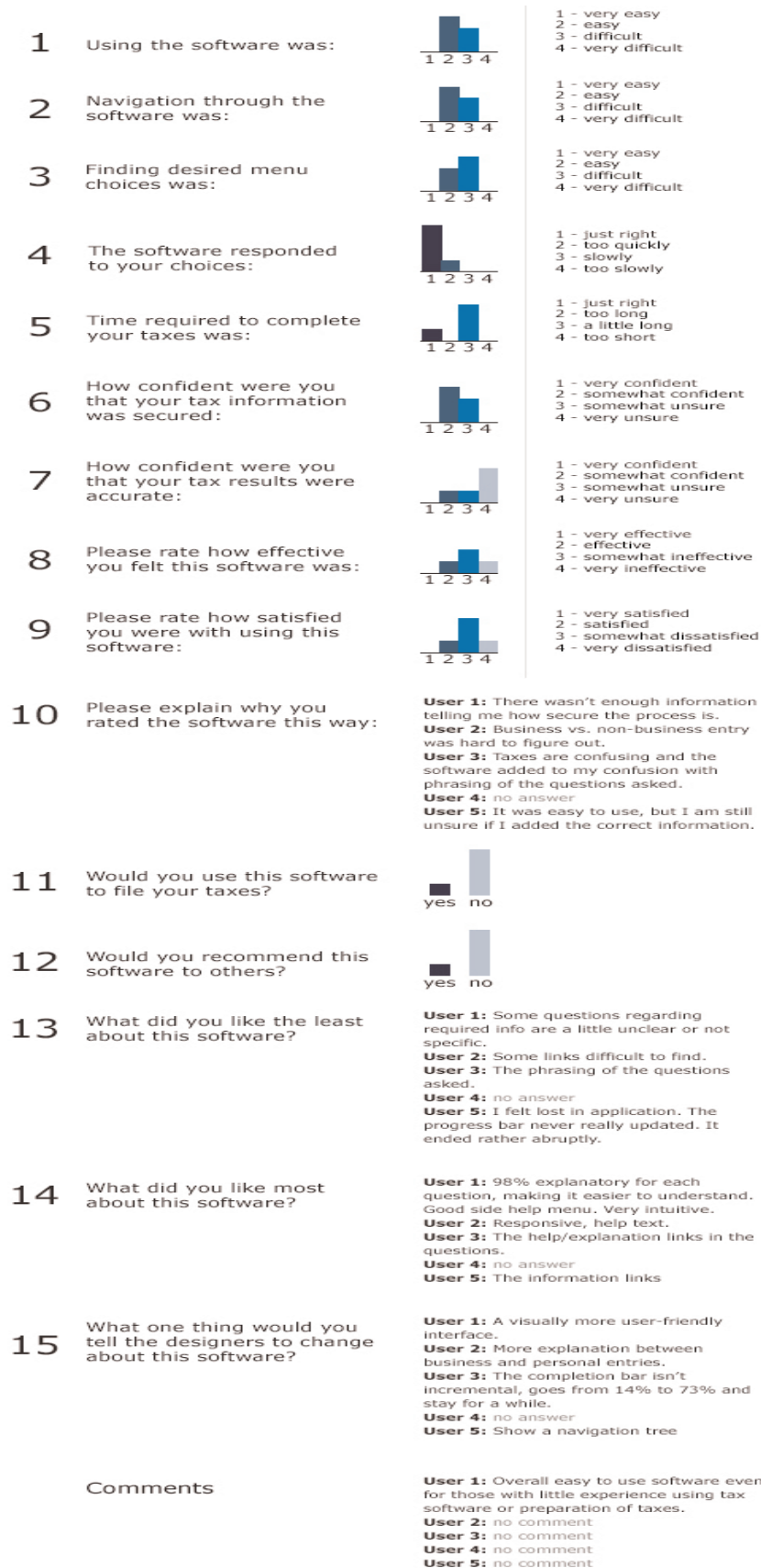
1	Using the software was:		1 – very easy 2 – easy 3 – difficult 4 – very difficult
2	Navigation through the software was:		1 – very easy 2 – easy 3 – difficult 4 – very difficult
3	Finding desired menu choices was:		1 – very easy 2 – easy 3 – difficult 4 – very difficult
4	The software responded to your choices:		1 – just right 2 – too quickly 3 – slowly 4 – too slowly
5	Time required to complete your taxes was:		1 – just right 2 – too long 3 – a little long 4 – too short
6	How confident were you that your tax information was secured:		1 – very confident 2 – somewhat confident 3 – somewhat unsure 4 – very unsure
7	How confident were you that your tax results were accurate:		1 – very confident 2 – somewhat confident 3 – somewhat unsure 4 – very unsure
8	Please rate how effective you felt this software was:		1 – very effective 2 – effective 3 – somewhat ineffective 4 – very ineffective
9	Please rate how satisfied you were with using this software:		1 – very satisfied 2 – satisfied 3 – somewhat dissatisfied 4 – very dissatisfied

10. Please explain why you rated the software this way:

User 1: There wasn't enough information telling me how secure the process is.
User 2: Business vs. non-business entry was hard to figure out.
User 3: Taxes are confusing and the software added to my confusion with phrasing of the questions asked.
User 4: no answer
User 5: It was easy to use, but I am still unsure if I added the correct information.

11. Would you use this software to file your taxes?

yes   no

12. Would you recommend this software to others?

yes   no

13. What did you like the least about this software?

User 1: Some questions regarding required info are a little unclear or not specific.
User 2: Some links difficult to find.
User 3: The phrasing of the questions asked.
User 4: no answer
User 5: I felt lost in application. The progress bar never really updated. It ended rather abruptly.

14. What did you like most about this software?

User 1: 98% explanatory for each question, making it easier to understand. Good side help menu. Very intuitive.
User 2: Responsive, help text.
User 3: The help/explanation links in the questions.
User 4: no answer
User 5: The information links

15. What one thing would you tell the designers to change about this software?

User 1: A visually more user-friendly interface.
User 2: More explanation between business and personal entries.
User 3: The completion bar isn't incremental, goes from 14% to 73% and stay for a while.
User 4: no answer
User 5: Show a navigation tree

Comments

User 1: Overall easy to use software even for those with little experience using tax software or preparation of taxes.
User 2: no comment
User 3: no comment
User 4: no comment
User 5: no comment

Figure 3.2: Qualitative Results

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User attitudes

User 1: Roger Masa

The user felt pretty confident using the software, as he was highly experienced in filing taxes. His knowledge of tax terminology helped him complete most tasks successfully. During the test, Roger commented several times saying, "the help screen to the right is quite useful". Further, he utilized the help links within the software several times throughout the test.

The debriefing questionnaire revealed the user's attitude towards the software. He felt that the software was "98% explanatory for each question" and was very "intuitive". However, the user did feel some negativity towards the software. He felt that some of the required information could be explained and made more clear, to make the process of filing taxes run more smoothly.

User 2: Vilas Abraham

This user was a novice at filing taxes and felt that there were positive and negative aspects to the software. During the usability test, he reiterated several times that he was confused, saying, "Am I doing this right?" This is partly the fault of the usability design, but also the tax software for not providing sufficient feedback to the user.

The debriefing questionnaire revealed that the user found some links difficult to find. There were times when the user seemed frustrated and confused when searching for a specific help link. He did like, however, the "responsive help text". He was referring to the help menu on the right hand side of the interface. When asked about changes to the software, he suggested that more explanation be given in regards to the separation of personal and business income.

User 3: Nathan Royer

This user did not speak aloud all that much, but his body language said a lot about his attitude towards the software. He began the test confident, but as he ran into places that were confusing or hard to answer, he slunk back into his chair. His facial expressions also showed a bit of frustration at certain points. He even said that he, "just to be done", towards the end of the usability test.

The debriefing questionnaire revealed similar frustrations, as he articulated that the "phrasing of the questions asked' were confusing and needed to be made clearer. Again, like the first two users, Nathan felt that the help on the right hand side of the software was useful. He also mentioned the progress bar being deceiving, which frustrated him because he felt that he was close to being finished filing the taxes, when in actuality, he was not.

User 4: Dave Grenhow

This user was highly experienced at filing taxes and had a negative attitude towards the program right from the start. When asked to enter his phone number in the personal information section, he said, "the government never asks you for your phone number", implying that this is non-vital information. The program eventually crashed on this user and he was extremely agitated and decided to quit the test.

John was relatively quiet during the usability test, but also even keeled. He did not appear to be highly agitated or highly content with the program. He was not extremely knowledgeable about the process of filing taxes but found the tasks to be relatively easy. During the usability test, he asked a few times, "am I doing this right?" Again, he wasn't very certain that information he was entering was into the correct fields.

The debriefing questionnaire revealed some of the frustrations he felt during the test. He was frustrated that the progress did not update and was deceiving. He also indicated that he "felt lost in the application" and that certain aspects of the software were confusing. Like all of the other users, John felt that the help links were useful.

3.3 Findings

1. Users found it difficult to re-enter missing information

Every user went to the "summary" page, which displayed an overview of the sections of the software that they completed. However, when going to the income section, the program took them to the beginning of that section forcing the users to navigate through every single page of the section, but never could locate the business expenses field. This is clearly a navigation problem and can be considered a major problem because when filing tax returns people want to be sure they are entering all the correct information. This means that it should be very easy for a user to locate a particular |section and edit it. No data entry should be final without giving a chance for correcting it before actually filing the taxes.

2. There were large variance of final tax owed

The final amount of tax owed significantly varied from user to user.

The amount of tax our users owed ranges from $1,051 to $13, 887. This is a major concern for the accuracy aspect of the tax program. For something as serious as taxes, the program should yield more proximate results based on same information, as was our case.

3. Users were confused at the end of each section, (i.e. income, business information, adjustments, education, etc.)

At the end of each major section, a prompt was displayed that said, "do you have another business (or employer, or university, etc.) to report?" A similar problem occurred after the education section due to a typo, as follows: "do you have a university to report in 2005?" It is missing the keyword another, and as a result, 3 users clicked "yes" only to realize that they had entered that information already. This caused them to end up with two identical education entries and therefore had to delete one of them.

A prompt was displayed at the end of those sections that read: "you have completed the _____(ie: business income) section" followed by "yes" and "no" radio button choices. This was confusing to ours users because it makes it look as if the program is not aware that the user had just completed that section. What was more frustrating to our users is something that clearly was not a question.

4. Users found the help context quite useful

All users made a frequent use of the definitions of the highlighted words on the screen to check if a certain item applies to them or not. In addition, every user made use of the help menu on the right hand side of the screen.

After reading further help information or definitions, our users tended to be able to complete the task they were having troubles with.

5. Progress bar is misleading

The progress bar was showing close to correct progress through the first few pages of the program. After that, it was stuck at 73% all the way to the end of the federal tax completion. This led user to think early on in the testing that they were almost done, when in fact they were not even close to being done.
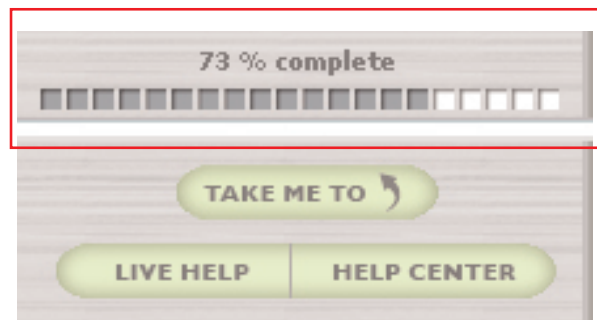

Figure 3.3: Progress Bar

4. Recommendations

Based on the data collected and the findings, there are several recommendations that can be made to improve the usability of the software.

Recommendations	Importance
1. Create a more specified summary page where a user can expand certain sections and be able to locate exactly what they are looking for in order to make corrections or simply review their entry.	High
2. Turn the statement at the end of each section into a question to say, "You have already entered a _____, do you have another _____ to report?	High
3. Correct the progress bar to resemble actual progress.	High
4. Create a "save" function that is separate from the "quit" function and make it a more prominent color, such as red in order to be easily found by users.	High
5. Provide samples for few different scenarios (different types of employees with different types of deductions) so that user will be able to learn from it and feel more confident when entering their data into certain fields.	Medium
6.Make links blue and underlined, the way traditional links appear.	Medium

Figure 4.1: Recommendations Table

1.   A more visual summary tree that outlines every section of the tax filing process would be of great value. Currently, the summary page outlines only the beginning of the major sections, and neglects to outline each individual page. A hierarchy that visually displays these sections would be valuable.

2.   Currently, the software asks the user, "do you have another _____(institution, etc.) to enter?". However, there are places in the software where there is a typo and the word "another" is completely missing. This makes the question ambiguous and confusing for the user. By rewording the question the statement to say, "you have already entered an institution, do you have another institution to report?", it eliminates any possibility of ambiguity.

3.   The progress bar should update more regularly, after the completion of each section. Currently, the progress bar jumps from a low percentage to 73%, where it stays for the majority of the process.

4.   Currently, the user has no way to save his/her progress and continue working. The only option is to save and quit simultaneously. By separating these two functions, the user will be able to save at any time, and continue working.

5.   By providing specific scenarios, users will be able to follow by the use of an example. This will eliminate confusion and ambiguity.

6.   By using the traditional color of blue for links, users will know for certain that the help link is click able. Currently, the links are black and underlined. Because it is the same color as the rest of the text, it can be quite confusing to the user.
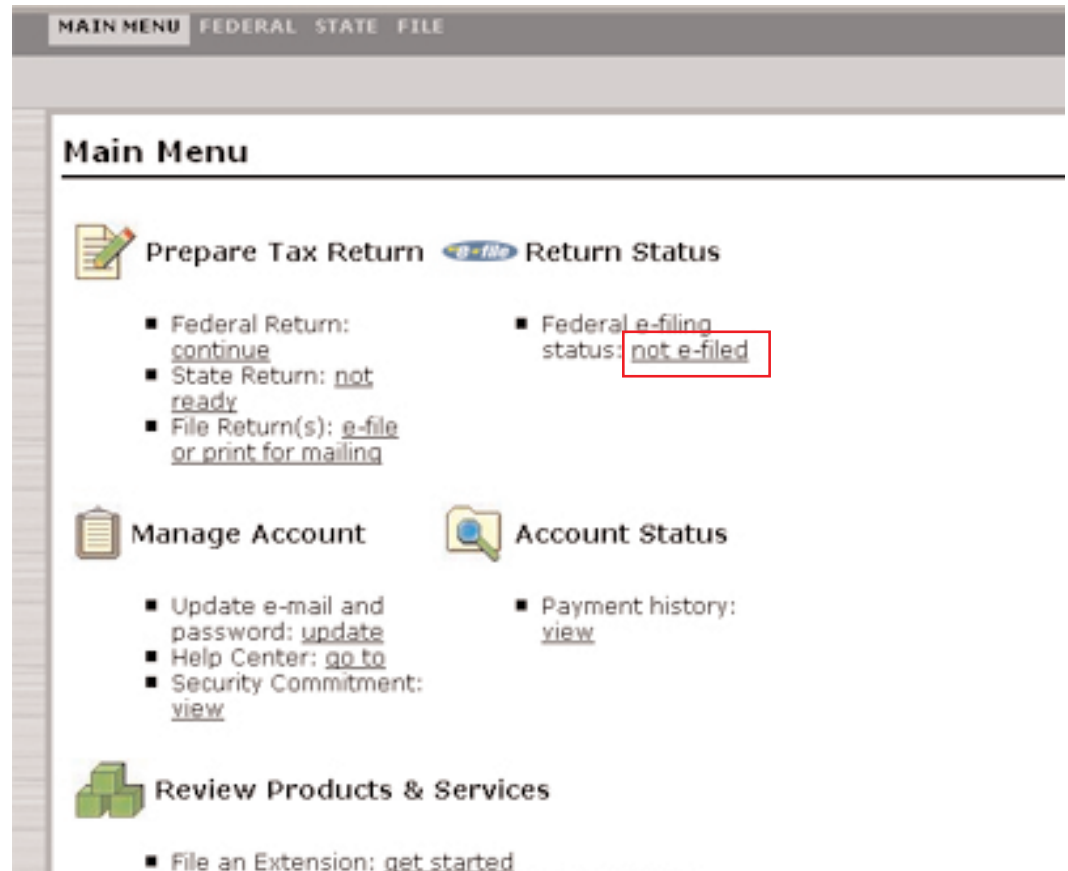

Figure 4.2: Changing current link color to traditional blue

5. Appendices

Appendices with a set of all testing materials are provided on the attached CD-ROM disc