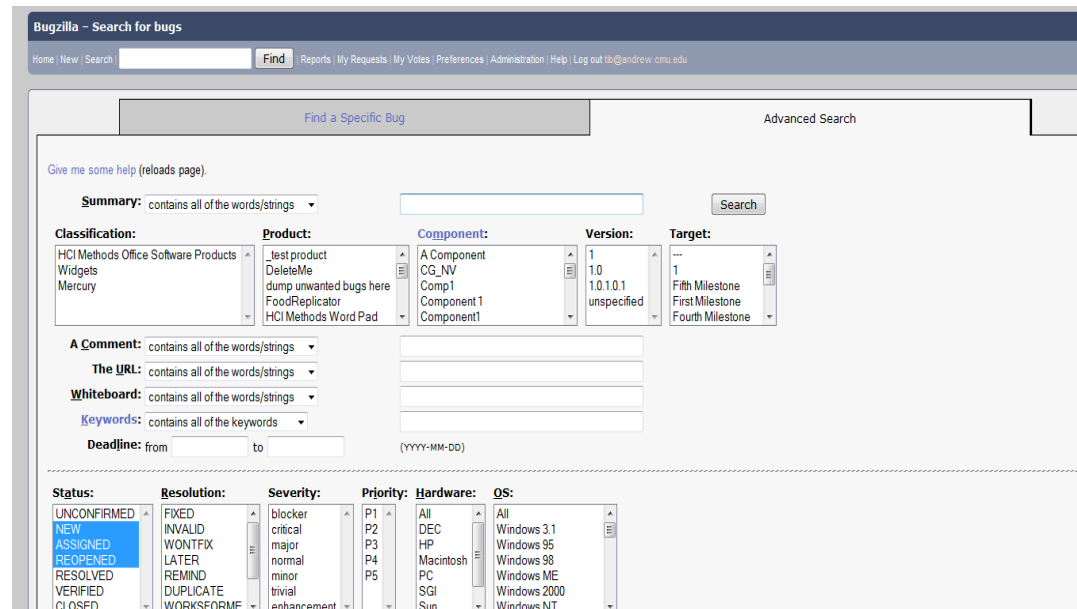| No. **BZ -TA- 01**	**Problem/Good Aspect:** Problem

Name:
Advanced Search Seems Daunting.

Evidence:

User first clicks on the search menu and sees the full advanced search page.

"Wow, this is crazy", "And honestly the bottom of this just looks a bit overwhelming, and I think that if I just pick these up here and type in save, that might give me a hint"

Criterion: 7. User expresses negative affect

Explanation:
The user was looking for a simple way to search for a bug. The Advanced search screen seemed daunting to him when it first came up, this caused unneeded worry in the user as he was concerned about what was important.

Severity or Benefit
Rating: 3 Major Usability Problem

Justification
Frequency: High. All users submitting bugs should be searching for duplicates, and other people use the advanced search function for other purposes.
Impact: Moderate. The user overcame the issue in this case by simply ignoring the majority of the page. In a more verbose example, however, he might have difficulty cutting the list of bugs down to a reasonable size with this strategy.
Persistence*:* Moderate. This problem will continue to affect users to a lesser and lesser extent over time, as they slowly become more used to the interface over time.
How these factors are weighted and why:

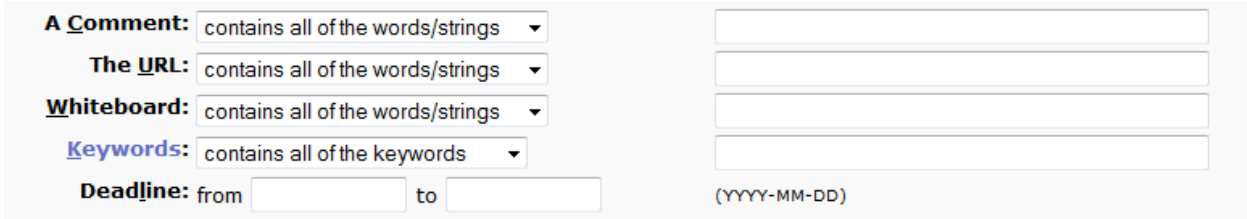| |
|---|
| The advanced search is a keystone of the Bugzilla interface, and it is very unfriendly to inexperienced users. The high frequency is not counter balanced by low impacts or persistence, so it remains a major issue. |
| **Possible solution:** |
| Prune the fields shown in advanced search to a reasonable number. If there are still obscure search options required then they should be hidden or need to be turned on for a specific account. |
| **Possible trade-offs:** |
| This requires that users who want full functionality must log in. Additionally, some people will not like enabling features that were previously available by default. |
| **Relationships:** |
| BZ-TA-03 (User specifically dealing with part of the Advanced search screen). |

No. **BZ -TA-03**	**Problem/Good Aspect:** Problem

Name:

Form fields in advanced search are confusing.

Evidence:

User is looking at the advanced search screen and is trying to sort it out.

"A comment, the url, whiteboard, I'm not sure what these all mean. Keyword is the only thing that really looks familiar"

A **Comment:**	contains all of the words/strings ▼	
The **URL:**	contains all of the words/strings ▼	
Whiteboard:	contains all of the words/strings ▼	
Keywords:	contains all of the keywords ▼	
Deadline:	from ____ to ____	(YYYY-MM-DD)

Criterion: 6. User expresses confusion

Explanation:

Severity or Benefit
Rating: 2 Minor Usability Problem

Relationships:

BZ-TA-01 (More general confusion related to the advanced search screen)

No. *BZ -TA-04*	**Problem/Good Aspect:** Problem

Name:
Meaning of "Deadline" is unclear

Evidence:

User trying to figure out meaning of Deadline on Advanced Search Page.

"I'm not sure what a deadline might be"

Criterion: 6. User expresses confusion

Explanation:

Severity or Benefit
Rating: 2 Minor Usability Problem

Relationships:
BZ-TA-03
BZ-TA-01

No. **BZ -TA-06**	**Problem/Good Aspect:** Good

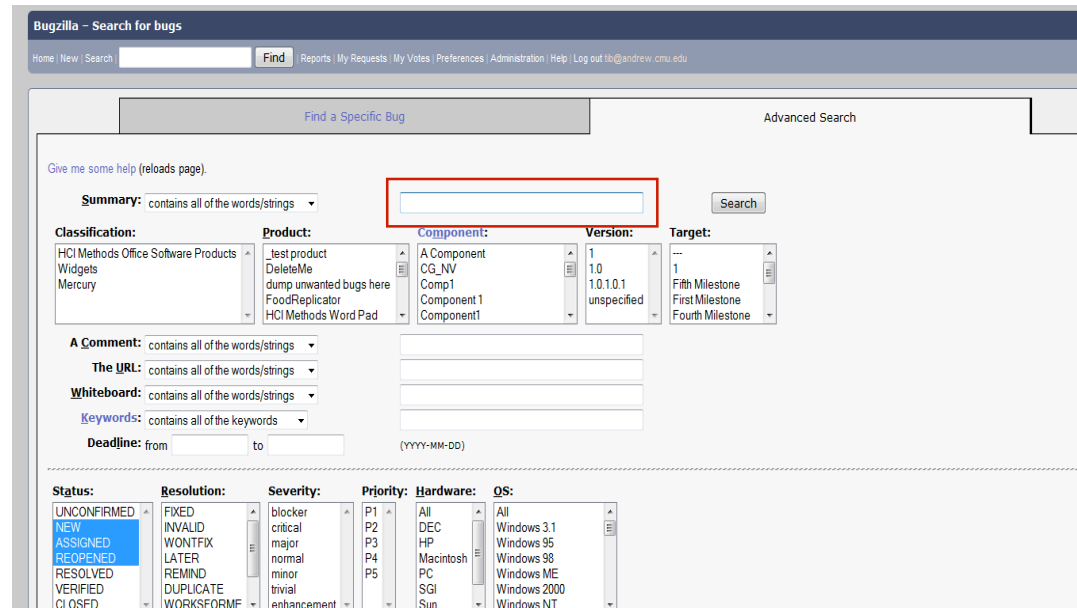**Name:**

User experiences no difficulty finding the summary field for the search term.

Evidence:

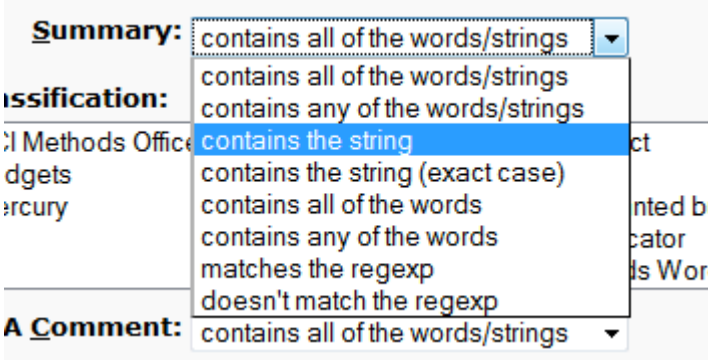User experiences no problems finding the summary field in the Advanced Search page.

Criterion: 11.   Some previous analysis has predicted a usability problem, but this user has no difficulty with that aspect of the system.
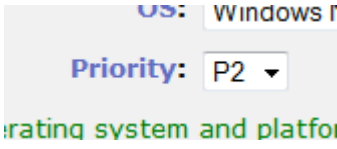
Explanation:

Severity or Benefit

Rating: 2 Minor usability benefit

No. **BZ -TA-07**	**Problem/Good Aspect:** Problem

Name:
User selects from type-of-search-term dropdown box, even while expressing that it is probably unnecessary.

Evidence:
In the advanced search page:

"Any of these is… I'm just gonna go with string", chooses "Contains the string" instead of leaving the option even though he believes any of the options should work

Criterion:
4.   The user accomplishes the task, but in a suboptimal way

Explanation:

Severity or Benefit Rating: 2 Minor Usability Problem

No. **BZ -TA-12**	**Problem/Good Aspect:** Problem

Name:
Target Milestone is confusing.

Evidence:
User didn't understand the purpose of "Target Milestone" in the Bug Submission page.

"Target milestone. I'm not sure what that means but there's only one option so I'm gonna leave it"

Criterion: 6. User expresses confusion.

Explanation:

Severity or Benefit
Rating: 2 Minor Usability Problem

Possible solution:

Possible trade-offs:

Relationships:

No. *BZ -TA-13*	**Problem/Good Aspect:** Problem

Name:
Priority is Confusing

Evidence:

User is trying to fill out bug submission form, but is unsure of what the meaning of the priority field is.

"Priority… I'm not sure what that means either"

Criterion: 6. User expresses confusion.

Explanation:

Severity or Benefit
Rating: 2 Minor Usability Problem

No. *BZ -TA-14*	**Problem/Good Aspect:** Problem

Name:
User fails to find an explanation for priority

Evidence:
From the bug submission screen:

First user clicks bug writing guidelines,

Then searches for the word "Priority" with a Ctrl-F search.

When it is not there the user explicitly gives up.

"I don't know what the priority is, I'm going to leave it alone"

Criterion: 2. User tries several things before explicitly giving up.

Explanation:
The user believed that the bug submission guidelines were intended as an overall help file for the page. This is not the case, as there is a specific help feature available by clicking directly on the word "Priority" on the bug submission screen.

Severity or Benefit
Rating: 3 Major Usability Issue

Justification
Frequency: Moderate. It is not known how many users would encounter this problem. Any user attempting to find help on an issue who had been reading the page from the top will have seen the call out for bug submission guidelines already and they would be quickly salient.
Impact: High. This issue negates the help feature for the individual terms for all users who encounter it.

When the bug submission guidelines do not help they are unlikely to continue to search for other forms of help.

Persistence*:* Low. This is a one-time problem.

How these factors are weighted and why:

The impact of this issue entirely negates the glossary style help feature. It also potentially will hit a large number of users when they already need help. While this is a low persistence problem this will lead to many submissions without proper information, and with lower new reporter retention.

Possible solution:
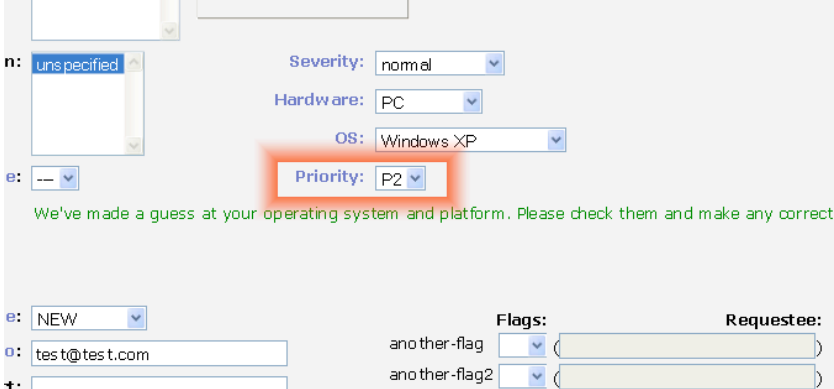
Include the glossary information in with the Bug Writing Guidelines, or possibly even write a step by step guide to help new users.

Possible trade-offs:

This new help feature would need to be written, and it would be longer than the previous help feature. An overlong piece of documentation comes with its own difficulties (of finding what you are looking for.)

Relationships:

None

No. **BZ -TA- 17**	**Problem/Good Aspect:** Problem

Name:
Help feature hard to notice.

Evidence:

User does not see that Priority is a link which can connect him to page with more details on how to select a priority

Criterion: 4.   The user accomplishes the task, but in a suboptimal way

Explanation:

Severity or Benefit
Rating: 2, Minor Usability Problem

Possible solution:
1. Links should be displayed in a way that they look clickable and more obvious widgets.
2. An in page pop-up could appear as user hovers over the link or there could be a standard help symbol to assist user on how to fill a field.

Possible trade-offs:
Extra information may not be necessary for the experts and may bother them.

Relationships:
BZ -TA- 17, BZ -TA- 18, BZ -TA- 19, BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-18**	**Problem/Good Aspect:** Problem

Name: User misunderstands 'Assign To' field.

Evidence:

User deletes the default email address in the assign to section and puts his own.

Criterion: 5.   The user does not succeed in a task. That is, when there is a difference between the task the user was given and the solution the user produced.

Explanation:
User showed some confusion while at this step of as the system expects user to know who to assign the problem to, and a common user (a customer of a product) did not have this information. Having looked at the default text against the assign to field, user was able to conceive that he is required to add an email address, however because he was not able to understand the purpose of this part of the task he decided to fill in his email address (provided for the Think -Aloud) and continued filling up the rest of the form. It must be noted that he did not explicitly indicate the reason for his course of action but it is highly probable that he was expecting this as a place to indicate who has submitted the problem.

Severity or Benefit
Rating: 4, Usability catastrophe

Justification (Frequency, Impact, Persistence):
   Frequency: Common. All novice users will face this problem if they are not aware of the internal structure and roles of the software company. For the customers of the product who are not familiar with the structure of the company, this field could be done away with if the system itself is selecting the default. They would also not care much about who the problem has been assigned to. If for such user the purpose of this section is to make them aware who is attending the problem they should be conveyed this information separately as novice user would not expect to note down the person problem is being assign to at this stage for future contacts.
   Impact: High, because of this mistake the problem gets assigned to himself and user still thinks that someone will take care of the problem.
   Persistence: Medium. User would face problem again as he might not always have the information on who to assign to.
   How these factors are weighted and why:
The problem ranks high on frequency and impact as the user assumes the problem to be resolved even it its absence.

Possible solution:
1. 'Assign to' label should look clickable and look like a link to the page with associated information. Help feature could be made more prominent using a help symbol against it or there could be an in page

pop-up window to help user understand the purpose of the 'Assign to' label.   **2.** The system at this stage could provide the user some options who to assign to and there could be an option to select if to e.g. "do not know".
Possible trade-offs: Additional information about this field may increase the clutter and the length of the current page and may not be desired by the current experts who know the system.
Relationships: BZ -TA- 17, BZ -TA- 18, BZ -TA- 19**,** BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.
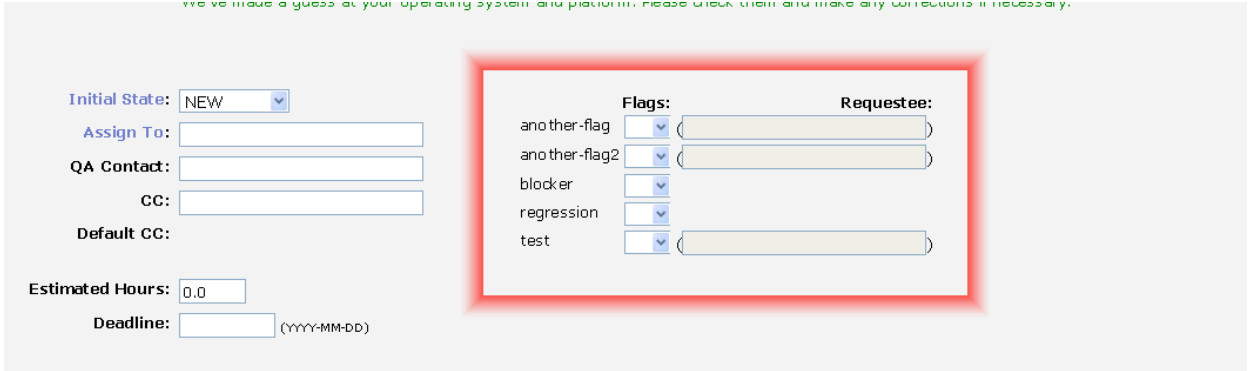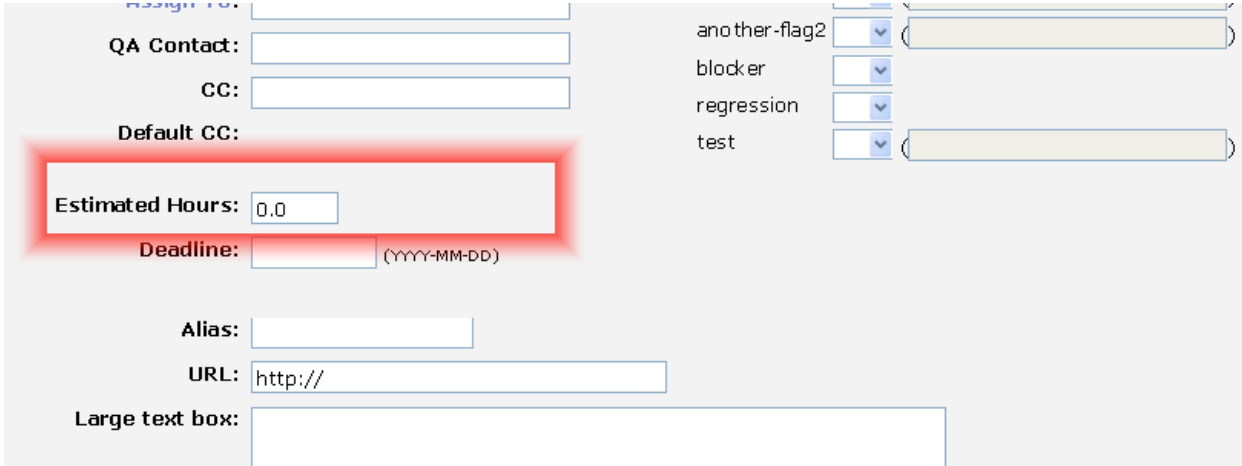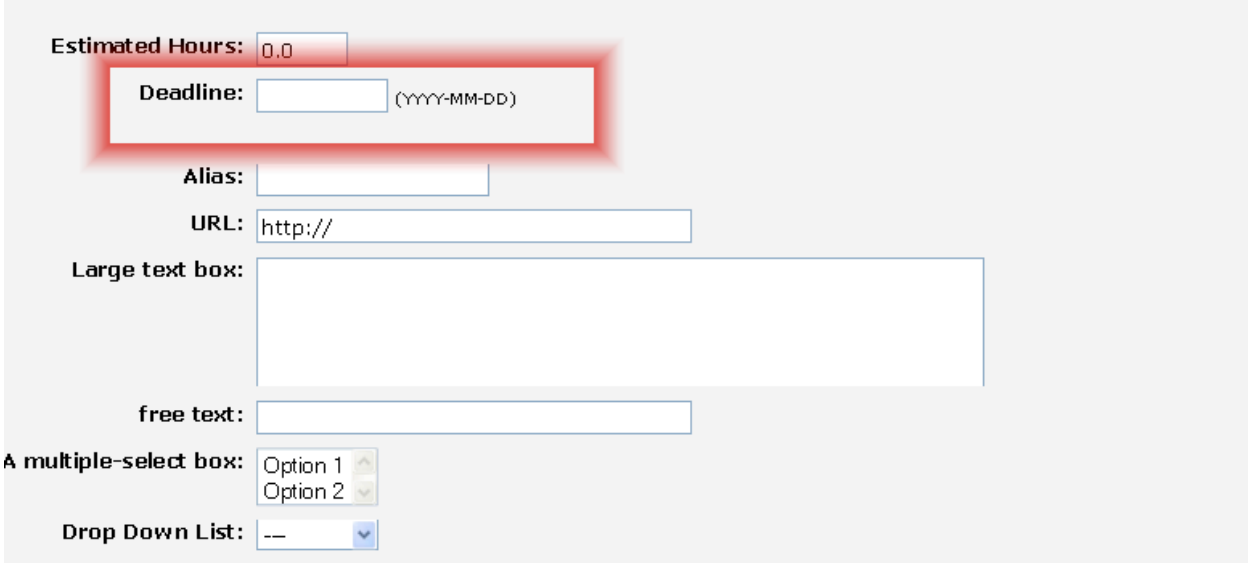
No. **BZ-TA-19**	**Problem/Good Aspect:** Problem

Name: CC and QA contact fields feel like something user wants to fill out, but the information is not available.

Evidence:

"I don't have a QA contact or CC" (T - 6:57)

Criterion:
6. The user expresses confusion, hesitation, or surprise.

Explanation:

Severity or Benefit
Rating: 2 Minor Usability Problem

Possible solution:
Some information could be provided in the visual field that assists the user on how to fill this field.

Possible trade-offs:
Extra information can cause some clutter not desired by experts who know the system.

Relationships:
BZ -TA- 17, BZ -TA- 18, BZ -TA- 19**,** BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-20**	**Problem/Good Aspect:** Problem

Name: Flags have no indication of purpose.

Evidence:
User states "So I'm just gonna check these drop downs to see what they are… I don't see anything worthwhile" while looking at the drop down flags. (T- 7:09)

Criterion:
7. The user expresses some negative affect or says something is a problem.

Explanation:

Severity or Benefit
Rating: 2 Minor usability problem

Possible solution:
 Some information could be provided in the visual field that assists the user on how to use the flag feature. E.g. provide question mark icons that display sticky explanations on mouse-over.

Possible trade-offs:
Extra information can cause some clutter not desired by experts who know the system.

Relationships:
BZ -TA- 17, BZ -TA- 18, BZ -TA- 19**,** BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-21**	**Problem/Good Aspect:** Problem

Name: Estimated hours can have multiple meanings.

Evidence:

"Estimated hours. I'm not 100 percent sure about what this is. Maybe estimated hours of how long it will take to fix or how many hours should be allocated to fix it."

The system assumes that the user would know how to fill this part even without any prior experience with problem solving or experience with problem solvers

Criterion:
4. The user accomplishes the task, but in a suboptimal way

Explanation:

Severity or Benefit Rating: 2 Minor Usability Problem

Possible solution:
There should be directions on how to fill this field in close visual field. This could be a pop-up. Another option might be to hide this field at initial bug submission and fill it in the triage process.

Possible trade-offs:
Extra information can cause some clutter not desired by experts who know the system.
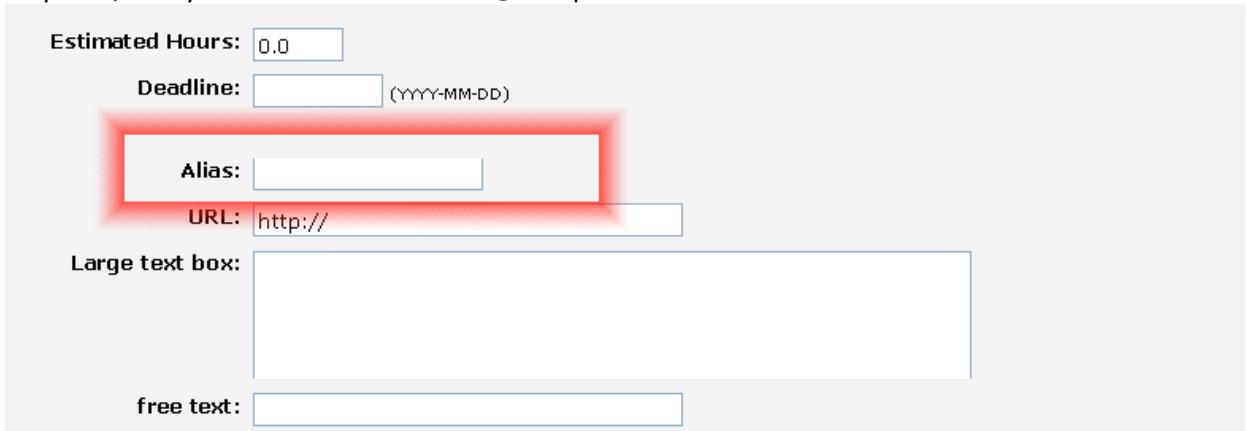
Relationships:
BZ -TA- 17, BZ -TA- 18, BZ -TA- 19**,** BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-22**	**Problem/Good Aspect:** Problem

Name: Deadline has multiple meanings and causes confusion.

Evidence:
User states that "The deadline… I assume the deadline by which it needs to be solved or handled"(T 7:40)

Criterion:
6. The user expresses confusion, hesitation, or surprise.

Explanation:

Severity or Benefit
Rating: 2 Minor Usability Problem

Possible solution:
There should be directions on how to fill this field. This could be a pop-up or a link to page that describes this information.

Possible trade-offs:
Using a small amount of pixel space on the screen.

Relationships:
BZ -TA- 17, BZ -TA- 18, BZ -TA- 19**,** BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-23**	**Problem/Good Aspect:** Problem

Name: User assumes that alias is asking for his alias (or email address).

Evidence:
" Alias.. Oh, ok. So the assign to… so I put this in the wrong place then". Uses ctrl-z get default assign to back.
"My alias, so my email address at broken@notepad.com" and then enters his address in alias.

Criterion:
4. The user accomplishes the task, but in a suboptimal way

Explanation:
The user assumes that against the 'alias' label he is required to fill his own name. However this is wrong as system expects him to put an alias to the problem he is about to submit. To the user this process is completely unnatural as need for putting an alias to the problem is not obvious to him.

Severity or Benefit Rating: 3, Major Usability Problem

Relationships:
BZ -TA- 17, BZ -TA- 18, BZ -TA- 19, BZ -TA- 20, BZ -TA- 21, BZ -TA- 22,BZ-TA-23 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-24**	**Problem/Good Aspect:** Good

Name: The possibility to undo a mistake in form is very helpful.

Evidence:
"Control z works wonders"

Criterion: Expresses happy affect

Explanation: On realizing that he had earlier put a wrong entry in a search field user tries to reach the original state with the help of undo. This saves a lot of time as he does not have to think about the wrong decisions he had made after making the wrong entry, and can start all over with the right entry.

Severity or Benefit
   Rating: 10.   The user expresses happy surprise.

Relationships: None

No. **BZ-TA-26**	**Problem/Good Aspect:** Problem

Name: User may not understand implications of a private description

Evidence: "Initial description is private. I don't know, I don't really care about that" (T 9:47 video one) "I don't want to put it as private. I want people to see it"(9:51 am)

Criterion:
6. The user expresses confusion, hesitation, or surprise.

Severity or Benefit Rating: 2 Minor Usability problem

Possible solution:
System could provide a note to help user better understand the effect of the action.

Possible trade-offs:
Regular user might not find it necessary and it may increase the clutter on the screen for him.

Relationships: BZ -TA- 17, BZ -TA- 18, BZ -TA- 19**,** BZ -TA- 20, BZ -TA- 21, BZ -TA- 22, BZ -TA- 26 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-28**	**Problem/Good Aspect:** Problem

Name: User enters keywords that are not legal keywords.

Evidence:
Enters words as keywords ("save, toolbar") (time T- 9:59)

Receives error message on submission due to illegal keywords (time t- 10:25)

Criterion:
4. The user accomplishes the task, but in a suboptimal way

Explanation:
While the user is able to understand the purpose of the field and that system requires him to enter some data, he does not realize that system expects him to choose from a definite keyword's list that has been set before. User does not have a liberty to choose any keyword outside of that list. On receiving the error user realizes that the keywords he had entered were wrong but means to rectify the errors or way to make the keywords of his choice legal is not very obvious to him.

Severity or Benefit
Rating: 3, Major Usability Problem
  Frequency: High. All novice users would expect to fill in keywords of their choice and may not realize that they do not have complete freedom to do so till they receive an error message.
   Impact: High, since the correct course of action is not immediately obvious to the user even if the error message is clear to him. User may try to click 'keyword' link only to see the given set of keywords on the list but this might not turn out to be too useful to his current intent of adding a keyword that best works for his problem.
   Persistence: Medium. User may finally be able to add the keyword is subsequent tries or decide to

abandon the subtask of adding the keyword since it is an optional field.

How these factors are weighted and why:

The problem ranks high on frequency and impact as the user is not successfully able to achieve his goal of filling out the field which he thinks is optional but useful. Based on the effect of this experience user may never try to use this option in future.

Possible solution:

Allow user to choose from a set of existing keyword options or allow him to add his own keywords very easily.

Possible trade-offs:

Allowing the user to add keywords of his choice may cause problems in effective usage of this feature; the reason because of which the user is restricted from doing so currently. There might be problems with indexing etc.

Relationships:

BZ -TA- 17, BZ -TA- 18, BZ -TA- 19, BZ -TA- 20, BZ -TA- 21, BZ -TA- 22 and BZ -TA- 28 all deal with lack of clarity of form fields and help information.

No. **BZ-TA-29**	**Problem/Good Aspect:** Problem

Name: User goes back a page by accidentally hitting backspace when there is no focus on the text box.

Evidence:
Highlights keywords, accidently clicks outside the field, and then hits backspace. System takes him back a page. Does this twice. Then highlights text and replaces it with "." He then uses the delete button. (Time t-10:56)

Criterion:
2. The user articulates a goal, tries several things or the same thing over again.

Explanation:
This might cause loss of data that has been entered into form fields, in browsers that do not cache form data.

Severity or Benefit Rating: 2 Minor usability problem

Possible solution:
Before taking user back a page in middle of filling a form the system should prompt the user if this is what he intends to do.

Possible trade-offs:

Relationships: None

No. **BZ-TA2-30**	**Problem/Good Aspect:** Problem
Name: "Component" label is not descriptive	
Evidence: The system asked the user to select the component and the user hesitated and then said "I don't really know what component is" [6:10]. She eventually chose the correct choice.	
Criterion: User expresses confusion.	
Explanation:	
Severity or Benefit **Rating:** 2 – minor usability issue	

No. BZ-TA2-31	**Problem/Good Aspect:** Problem

Name: Status options is difficult to notice

Evidence:
When user is performing the advanced search, the user does not change the default settings for status options. It appears that the user does not notice the field.

Criterion: User does not succeed at a task

Explanation:
The default status options do not cover all bugs that are in the system, only those that are currently in progress. Since the task was to see if the bug was submitted already, the user does not succeed at this because it may be under a different status, such as closed.

Severity or Benefit
Rating: 3 – major usability issue
Justification
Frequency: 3 - All users who search will need to be aware of the status options and how to set them correctly.
Impact: 3 – There is no feedback telling the user that they are not searching all issues, so they may never become aware of it. The field is visible though, so they may discover it.
**Persistence*:* 3 – This problem will persist until the user figures out the status options field on their own.
How these factors are weighted and why:
    Weighted equally

Possible solution:
Make the search less cluttered so that this field jumps out at the user more and give it a better label, such as "Search bugs with a current status:"

Possible trade-offs:
Making the page less cluttered may result in making the search page very long (longer than most people would want to fill out).

Relationships:
None

No. *BZ-TA2-32*	**Problem/Good Aspect:** Problem
Name: "A Comment:" field is confusing	
Evidence: User is filling out the Advanced Search page and comes across the "A Comment:" text field. She says "I guess I'm not sure what this is" [6:50] and then chooses not to fill out the field.	
Criterion: User expresses confusion.	
Explanation:	
Severity or Benefit **Rating:** 2 – minor usability issue	

No. *BZ-TA2-33*	**Problem/Good Aspect:** Problem
Name: Use of Keyword field in Advanced Search is unclear	
Evidence: While filling out the Advanced Search page, the user comes to the Keyword dropdown field. The user asks "Is this to constrain my search?" [7:20] and then decides not to fill out the field.	
Criterion: User expresses confusion	
Explanation:	
Severity or Benefit **Rating:** 2 – minor usability issue	

No. *BZ-TA2-34*	**Problem/Good Aspect:** Problem
Name: Use of deadline field is unclear	
Evidence: User is filling out the Advanced Search page and comes to the Deadline field. User says "I don't know how this matches with the thing I want" [7:40] and then does not fill out the field.	
Criterion: User expresses confusion	
Explanation:	
Severity or Benefit **Rating:** 2 – minor usability issue	

No. BZ-TA2-35	**Problem/Good Aspect:** Problem

Name: Search button is difficult to find

Evidence:
User finishes filling out the Advanced Search page and needs to actually perform the search. The user performs a visual search of the page and scrolls up and down, saying "Where is the search button?" [8:10].

Criterion: User expresses confusion

Explanation:
The user could not find the search button because the page was so cluttered. They looked at the bottom of the page, but did not see it. They eventually found it at the top, but it never "popped out" at them.

Severity or Benefit
Rating: 3 – major usability issue

Justification
Frequency: 3 – everyone who searches will potentially have this problem
Impact: 2 – the search button is on the page and visible, so the user can find it with some looking.
Persistence*:* 2 – once the user is finds the search button, they only need to remember where it is.
How these factors are weighted and why:
Weighted to frequency. Although the impact and persistence are low, the fact that all users who search may have this problem means it should be weighted to frequency.

Possible solution:
Make the Search button a little bit farther away from all the other fields so that it "pops."

Possible trade-offs:
This may make the page more cluttered rather than less.

Relationships:
None.

No. BZ-TA2-36	**Problem/Good Aspect:** Problem

Name: Determining which fields to fill out in Advanced Search is difficult.

Evidence:
The user searches the Advanced Search Page after she has filled out some of the fields and says "I don't know if I should fill out any more fields." [8:30]

Criterion: User expresses hesitation.

Explanation:
There were so many fields on the Advanced Search page that the user was unsure which ones she needed to fill out. She wasn't sure which ones were needed in order to make her search work.

Severity or Benefit
Rating: 3 – major usability issue

Justification
Frequency: 3 – all users who search.
Impact: 3 – user may waste a lot of time trying to figure out which fields to fill out.
Persistence*:* 2 – once the user finds which fields to fill out, they only have to remember.
How these factors are weighted and why:
Weighted towards frequency and impact. Although the persistence is low, the high frequency and impact overcome that.

Possible solution:
Remove some of the fields from the form or have a way to minimize them so that the user sees less fields.

Possible trade-offs:
All fields may be required, so removing them or hiding them may make it difficult for users who need these fields.

Relationships:
None.

No. **BZ-TA2-37**	**Problem/Good Aspect:** Problem

Name:
User does not understand "zarro boogs found"

Evidence:
What the user said:
- "Zarro, ... Zarro boogs...?"
- "So i guess i am not doing it right."

What the user did:
     The user hit the search button on the advanced search screen and is presented with the search result screen. He expresses confusion over the displayed message but is unable to understand that there are no results to his search query. After trying a lot of different ways to move on he expresses, that he thinks he did something wrong gives up.

Criterion:
1. The user articulated a goal and does not succeed in attaining that goal within 3 minutes (then the experimenter steps in and shows him what to do--the next step).
2. The user articulates a goal, tries several things or the same thing over again (and then explicitly gives up).
6. The user expresses hesitation or confusion.

Explanation:
The user was unable to interpret the "zarro boogs found" message as "there were no results to your search query please use the back button of your browser to alternate your search". He tries different ways to progress, but is unable to find what he wants and ultimately gives up.

Severity or Benefit
Rating: 4 – usability catastrophe
Justification
Frequency: Many new users of the system will be unable to understand the jargonous message.
Impact: Difficult to overcome. There is no apparent way to proceed or understand the given system feedback.
Persistence: Once the user knows the meaning of the message he will be able to proceed and alter his search, however there is no way he could learn on his own about the meaning of the message.
How these factors are weighted and why:
    The user seen in this think aloud was severely distracted and ultimately had to give up on his task. He could not proceed without external interference. All factors are on a critical level here, hence the problem is to be regarded catastrophic

Possible solution:
Replace the message with something like: "there were no results to your search query please use the back button of your browser to alternate your search" and highlight this in red.

Possible trade-offs:
No apparent trade-offs.

Relationships:
None.

No. **BZ-TA2-38**	**Problem/Good Aspect:** Problem

Name:
User thinks "remember search" is mandatory

Evidence:
What the user said:
•   "For me it doesn't make much sense... The order of this textbox and that button..."
What the user did:
The user looks at the empty search result set and tries to move on. The only apparent way to move on is the remember search button. He expresses, that this does not make a lot of sense the way it is laid out but he tries it anyway.

Criterion:
7. The user expresses some negative affect or says something is a problem.

Explanation:
The user is trying to move on from the point where he does not understand that there are no results to his query. Obviously he thinks to be in some kind of process and tries to move on in this process. However the "remember search" button is not easy to understand for a first time user and there is no explanation offered why saving a search query might be helpful in the future.

Severity or Benefit
Rating: 3 – major usability problem
Justification
Frequency: Many new users of the system will be unable to recognize what the "remember search" button will be used for, but we would expect only few users to care about it as much as the user seen in this think aloud.
Impact: Difficult to overcome. There is no explanation available as to how the "remember search" function should be used.
Persistence: Once the user figures out how this function works, he will remember it and use it appropriately; however there is no apparent way how to figure that out.
How these factors are weighted and why:
We do not expect many users to behave like this user, however there is no way to recognize the effects of using this function and this is a major problem.

Possible solution:
Offer sticky notes on mouse-over that explain the function of this feature.

Possible trade-offs:
No apparent trade-offs. Users who don't need the description can just move on and disregard the sticky notes.

Relationships:
None.

No. **BZ-TA2-39**	**Problem/Good Aspect:** Problem

Name:
Use of tagging tool is unclear

Evidence:
What the user said:
- "Commit to what?"
- "Do I have to commit again."

What the user did:
> The user looks at the "add tag" tool in the bottom toolbar and expresses confusion over how to use it. He tries to play with it but cannot make sense out of the fields provided once he proceeds.

Criterion:
6. The user expresses hesitation or confusion.

Explanation:
The user is trying to move on from saving a search query and on the "new search named" page he looks at the "add named tag to..." function. The commit is the only item on the screen that apparently lets the user to progress in the process he thinks he is in. However there is no process and he also doesn't realize that he is looking at the generic bottom toolbar that is displayed on every page in the system.

Severity or Benefit
Rating: 3 – major usability problem

Justification
Frequency: Many new users of the system will be unable to recognize what the "add named tag to ..." function will be used for, but we would expect only few users to care about it as much as the user seen in this think aloud.
Impact: Difficult to overcome. There is no explanation available as to how the function should be used.
Persistence: Once the user figures out how this function works, he will remember it and use it appropriately; however there is no apparent way how to figure that out.
How these factors are weighted and why:
> We do not expect many users to behave like this user; however there is no way to recognize the effects of using this function and therefore it is a major problem.

Possible solution:
We proposed earlier to get rid of the bottom toolbar and make the top toolbar fixed on top of the screen at any point of time. Misunderstandings as the one described above will be avoided by this solution.

Possible trade-offs:
No apparent trade-offs.

Relationships:
FP-HE-01 discusses the same proposed solution.

No. **BZ-TA2-41**	**Problem/Good Aspect:** Problem

Name:
Tag feature requires number of bug

Evidence:
What the user said:

- "I don't know where to find the number for my bug."

What the user did:

      User sees an error message that identified an invalid bug number after trying to add a tag to a bug. The user does not know   where to get the number for the bug, but thinks he is responsible for coming up with a number.

Criterion:
6. The user expresses hesitation or confusion.

Explanation:
The user cannot know the number of bugs in the system.

Severity or Benefit
Rating: 4 – usability catastrophe

Justification
Frequency: High, there are surely not many users that can recall the number of bugs in the system.
Impact: Impossible to overcome. People will be unable to use this tool if the bug number they require is not displayed on the screen.
Persistence*:* This will be a repeated annoyance to users and cause a lot of confusion for new users.
How these factors are weighted and why:

      There is no way to figure out a number of a bug except in search results or the bugs page itself. At any other point of time there is no use for the feature and it causes users to enter wrong data. The effects are not catastrophic but from the values above, the issue has to be viewed as catastrophic from a usability perspective.

Possible solution:
This tag tool should be merged with the keywords tool that is available on the bug submission screen. There is no way for users to identify a difference between tags and keywords. If tags/keywords are to be entered for bugs in a search results page it could be done with separate interactive elements for each bug in the result set.

Possible trade-offs:
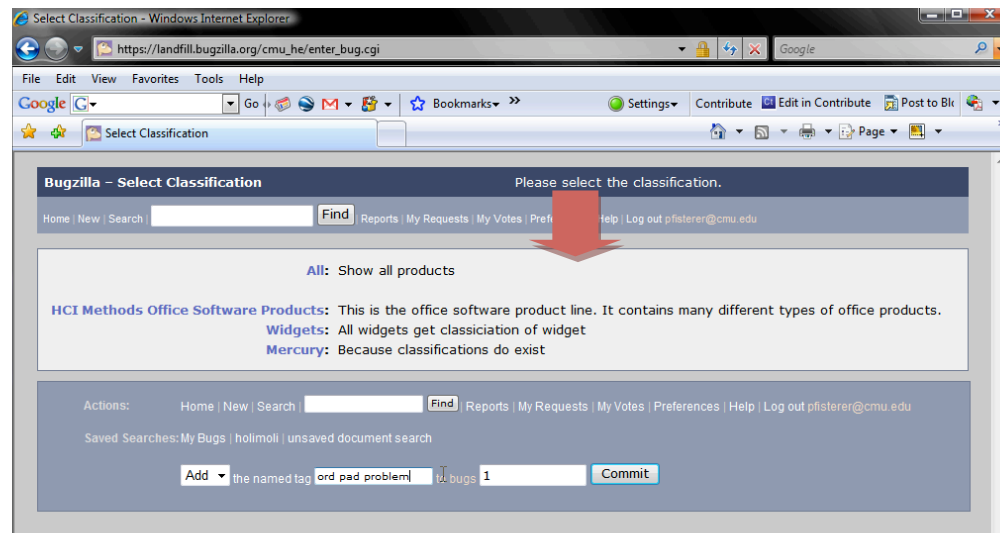No apparent trade-offs.

Relationships:
None.

No. **BZ-TA2-42**	**Problem/Good Aspect:** Problem

Name:
Product selection links are not easy to identify

Evidence:

What the use said:
- "I didn't think that these were links." → After researcher intervention.

What the user did:
> The user is reading through the product selection screen but does not click on any of the product links. He tries to enter a bug name or summary in the tagging tool.

Criterion:
2. The user articulates a goal, tries several things or the same thing over again (and then explicitly gives up).

Explanation:
The user obviously did not recognize the links on the product selection screen. He reads through them but does not get the idea of ultimately clicking one of them but instead moves on to do all sorts of useless things and eventually gives up.

Severity or Benefit
Rating: 4 – usability catastrophe

Justification
Frequency: High, we encountered this issue multiple times and it was also discovered in a heuristic evaluation. We believe that many users will have problems with this.
Impact: Difficult to overcome. The user seen in our interview does not see the selection note on top of the screen and there is no other documentation available.
Persistence*:* One time annoyance. Once the user has figured out how to proceed on this screen he will know in the future, we also believe that many users will ultimately figure out that the appropriate product should be selected with one of the links.

How these factors are weighted and why: Since it can cause first time users to fail in the process and at least some are unable to proceed without external interference the Impact and Frequency are to be regarded as catastrophic.
Possible solution: Come up with implicit way's to select a product. E.g. provide direct links that could be embedded in the respective product to link to a bug submission page that is prefilled with specifications of this product. Alternatively make Product Selection Links more prominent or provide buttons behind every product description.
Possible trade-offs: No apparent trade-offs.
Relationships: None.

No. **BZ-TA2-43**	**Problem/Good Aspect:** Problem

Name:
"Initial state" dropdown is ambiguous

Evidence:
What the use said:
- "I don't know what this refers to."

What the user did:

The user selects assigned from the initial state but expresses that he does not know what this is good for, later he selects unconfirmed

Criterion:
6. The user expresses hesitation or confusion.

Explanation:
The user does not understand the meaning of the initial state dropdown menu. "assigned", "new", "unconfirmed", etc. does not make a lot of sense to him.

Severity or Benefit
Rating: 2-minor usability problem

Possible solution:
Get rid of that field for new bug submission. The initial state should always be new, only if someone changes the bug or adds comments he should be able to change the state of a bug.

Possible trade-offs:
No apparent trade-offs.

Relationships:
None.

No. **BZ –TA2-44**	**Problem/Good Aspect:** Problem

Name:

QA Contact label ambiguous

Evidence:

22:41 "I don't understand much of this form"
22:43 "I think this is my contact."
22:46 "Questions and answers contact?"

User thinks about the "QA Contact" label and does not know what to do with the corresponding field. Then she enters her email address.

The system accepts her email address as valid although she is not the Quality Assurance contact on this particular issue.

Criterion: 6.   The user expresses confusion, hesitation, or surprise.

Explanation:

It is possible that the acronym so closely represents "questions and answers" rather that "Quality Assurance" that the user can easily mistake this field to be asking for their contact information.

Severity or Benefit

Rating: 2 minor usability problem

No. **BZ –TA2-45**	**Problem/Good Aspect:** Problem

Name:
Unclear if CC Field is required or not.

Evidence:

22:50 "I don't know why we have to CC."

User thinks about label and does not know whose email to enter. The user leaves the field blank.

Criterion: 6.   The user expresses confusion, hesitation, or surprise.

Explanation:
It is quite possible in this case that the user did not think that a CC email was required for correspondence regarding the issue, but did not know if this particular field was required by the system while filling out the form.

Severity or Benefit
Rating: 2 minor usability problem

No. *BZ –TA2-46*	Problem/Good Aspect: Problem

Name:

Deadline field is unclear

Evidence:

24:10 "I don't understand what to put here."

User enters a date based on when she would like the problem solved.

The system accepts the date as valid on form submission.

Criterion: 6.   The user expresses confusion, hesitation, or surprise.

Explanation:

The user enters a date based on her understanding of when she would like the problem fixed.

Severity or Benefit

Rating: 2 minor usability problem

No. **BZ –TA2-47**	**Problem/Good Aspect:** Problem

Name:
Mandatory fields unknown

Evidence:
24:20 "Is this form related to the word pad itself."

User fails to submit a defect with confidence. User gets confused and is unsure whether she is on the right track. User tries to come up with values for all fields (e.g. deadline and estimated hours)

The user explicitly gives up and the facilitator assures that she is in the correct location.

Criterion: 2.   The user articulates a goal, tries several things or the same thing over again (and then explicitly gives up).

Explanation:
The user becomes uncertain if the she is making progress in the form. This is due to her not knowing which fields are required and which are not. Another factor is that the user does not see any help readily available to use, which the user subsequently uses later on in the task.

Severity or Benefit
Rating: 4 usability catastrophe

Justification
Frequency: High; this is most problematic for new and infrequent users. Since the system feed-forward is not in place in the version we tested, this would most likely prevent these types of users to continue using the product.
Impact: High; due to the queued feedback on each error on the page, the user may be discouraged from continuing in their original task. It is extremely difficult for the new and infrequent user group to overcome this as the system does not allow them to continue on in the process without correcting the fields. Much of the users time will be spent resolving these issues, rather than submitting issues.
Persistence*:* Medium; once these types of users understand which fields are required they can successfully work around this problem. Yet, the time it takes to learn all the required fields may span over a long period of time.
How these factors are weighted and why:
Each of the factors was given equal weighting and would certainly deter new users from continuing to use the tool if it is not required of them.

Possible solution:
Provide feed-forward by indicating which fields are required for the user to fill out. On submission provide feedback by highlighting the fields which are required but not filled out.

Possible trade-offs:
Development time and 5x5 pixels to the left of each required field

Relationships:
BZ –TA2-45, BZ –TA2-46

No. *BZ –TA2-48*	**Problem/Good Aspect:** Problem

Name:

Alias field unclear.

Evidence:

26:22 "I don't know what to put in here."

User expresses confusion over what to put in the alias field. User enters an invalid alias string.

The system indicates the alias field is invalid. The user deletes the contents of the alias field in order to continue with submission.

Criterion: 6.   The user expresses confusion, hesitation, or surprise.

Explanation:

The user enters the information believing it is required. There is no immediate help available to help the user to understand what the field is used for.

Severity or Benefit

Rating: 2 – minor usability problem

No. **BZ –TA2-49**	**Problem/Good Aspect:** Problem
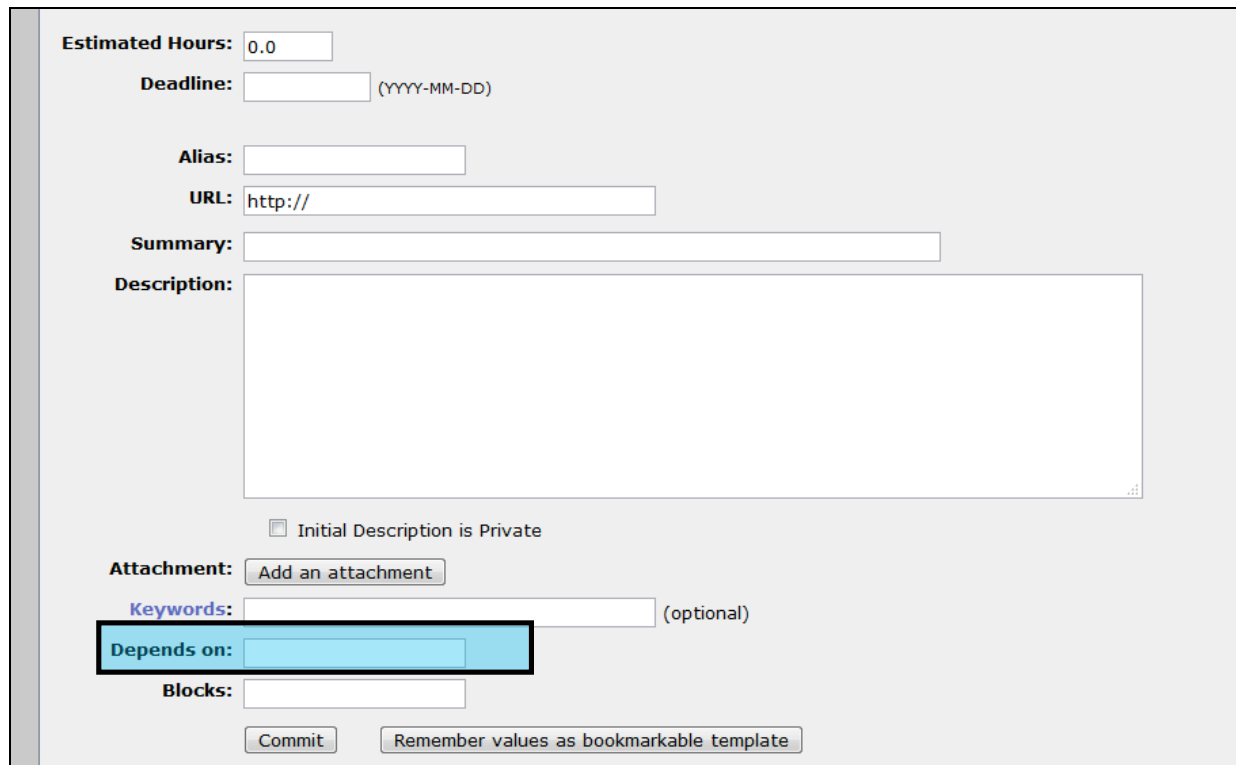
Name:
"Depends on" field unclear

Evidence:
30:00 "What could it depend on? Or the blocks..."

User expresses confusion over what to put in the "Depends on" field. The user does not enter any information.

Criterion: 6.   The user expresses confusion, hesitation, or surprise.

Explanation:
There is no immediate help available to help the user to understand what the field is used for.
Therefore it takes some time to determine what to do with the field. As it is not a mandatory field the user might eventually leave it alone, but at least spend some time to figure out what this means.

Severity or Benefit
Rating: 2 – minor usability problem

No. **BZ –TA2-50**	**Problem/Good Aspect:** Problem

Name:

"Blocks" field unclear

Evidence:

30:40 "What could it depend on? Or the blocks..."

User expresses confusion over what to put in the "blocks" field. The user fills out with "prevents saving file".

After receiving a submission error message about an invalid "blocks" field the user enters an arbitrary number in blocks.

Criterion: 5.   The user does not succeed in a task. That is, when there is a difference between the task the user was given and the solution the user produced.

Explanation:

There is no immediate help available to help the user to understand what the field is used for.
Therefore it takes some time to determine what to do with the field after receiving an error message.

Severity or Benefit

Rating: 3 - major usability problem

Justification

Frequency: Medium; this will affect new users. By receiving an error message the new users may

believe that this is required. Once they believe that it can be overcome by entering a number
they may continuing entering arbitrary numbers.

Impact: High; the user spent approximately 3 minutes trying to understand what to put into the field.
For users who are less invested in entering the issue themselves', they may abandon the task all
together.

Persistence*:* Medium; the user may believe that this is a required field, but that an arbitrary number
(from their perspective) can be entered. It may take some time for the users to realize this
without help.

How these factors are weighted and why:
Weighting of Impact was the highest as it may cause newer users to abandon the task.
Frequency and Persistence were rated slightly lower as there may be learning affects that will aid
the user to overcome this issue.

Possible solution:
Provide feed-forward by indicating which fields are required for the user to fill out. On submission
provide feedback by highlighting the fields which are required but not filled out.

Possible trade-offs:
Development time is the trade off.

Relationships:
N/A

No. **BZ –TA2-51**	**Problem/Good Aspect:** Problem

Name:
User does not use valid keyword

Evidence:

The user enters an invalid keyword. The system then displays an error message indicating such. She then returns to the form and reads help and then sees that it is not required and deletes the contents.

Criterion: 6.   The user expresses confusion, hesitation, or surprise.

Explanation:
As this field is at the bottom of the form and is the only field with feed-forward the user still enters what she believes ought to be submitted. This is because the user has proceeded through the form believing each field may be required.

Severity or Benefit
Rating: 2 – minor usability problem