

General Information – User Testing Sessions

Population:

- Our target population is software professionals that had previous experience debugging performance issues in CloudBuild.
- We did not restrict the target population with regards to location, number of years of practical experience, education, time working with the CloudBuild system, etc.

Sampling:

- Purposive sampling.
- Participants needed to hold a technical role (e.g., developer, software architect, software engineer, test engineer) and have practical experience with working with the CloudBuild system.
- To recruit participants, we reached out directly to individuals that were active in developing and using the CloudBuild System.
- In addition to purposive sampling, we may need to branch out into chain referral sampling.

User Testing Methodology

- Participants will be asked a few, semi-structured initial questions to gather background / experience.
- User Testing Phase:
 - Users will be given a bit time to explore the tool, a tour of the tool's features, and asked to complete a short task.
 - Users will be asked to follow "Concurrent Think Aloud Process" throughout the testing phases.
 - Facilitators will use "Hybrid of Concurrent Probing" if minimally disruptive to task and "Retrospective Probing" after the task is complete for more disruptive questions.
- Participant will be asked a few, semi-structured post task questions to gather feedback.

Setup

- Private room with Participant, Facilitator, and Notetaker (optional).
- Laptop hooked up to 1 external monitor, keyboard, and mouse.
- Desktop links for the CloudBuild Graph Explorer tool, digital copy of user tasks, and list of build Ids for the task.
- User is to be provided with pen and notepad during the session.
- Voice and screen are to be recorded using Skype.

The purpose of this user testing session is to simulate real world incidences in which the Build Graph Explorer tool could be used. This way users can have meaningful interactions with the tool (and normalize for people who have already seen the tool), before asking them questions about their experiences using the tool.

Instructions

Note: This script is adapted from Steve Krug's Usability Testing Approach (<http://sensible.com/downloads/>)

< Introduce self + anyone else attending. >

I'm going to be walking you through this session today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything. You probably already have a good idea of why we asked you here, but let me go over it again briefly.

We're asking people to try using the **CloudBuild Graph Explorer tool**, so we can see whether it works as intended. The session should take about an hour.

The first thing I want to make clear right away is that we're testing the **tool**, not you. You can't do anything wrong here.

As you use the site, I'm going to ask you as much as possible to try to think out loud: to say what you're looking at, what you're trying to do, what you're thinking, and anything else that pops into your mind. This will be a big help to us.

Also, please don't worry that you're going to hurt our feelings. We're doing this to improve the site, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done I'll try to answer them then. And if you need to take a break at any point, just let me know.

You may have noticed the recording software. With your permission, we're going to record what happens on the screen and our conversation. This way I don't have to take as many notes.

Do you have any questions so far?

< Turn on recording software + get verbal permission to record the session. >

Initial Questions

Before we look at the tool, I'd like to ask you just a few quick questions.

< Semi-structured format. Feel free to ask follow-up questions as needed. >

1. Please briefly describe your role here at Microsoft? What do you do all day? How long have you worked on your current team?
2. Roughly how many hours a week altogether — just a rough estimate— would you say you spend debugging build related performance issues for yourself or for customers?
3. Describe the tools you are currently using to help you debug these issues.
4. How would you describe your experiences with your current process?
5. Do you feel like there's any tool that is currently missing from your process? If so, please explain.
6. Have you had a chance to use the Build Graph Explorer tool prior to today? If so, please briefly describe how you've been using it so far.

The Tour

OK, great. We're done with the questions, and we can start looking at things.

< Click on link to Build Graph Explorer Tool. >

First, I'm going to ask you to look at this page and tell me what you make of it: what strikes you about it, what you can do here, and what it's for. Just look around for a couple minutes and do a little narrative.

You can scroll if you want to, but don't click on anything just yet.

< Allow this to continue for 3-4 minutes at most. >

Great, now I'm going to give you a quick tour of each of the parts of the tool.

< Probe them by asking what they think each section of the tool is for. Correct any mistakes and add additional explanation where needed. >

The Task

Thank you. Now I'm going to ask you to try doing a specific task. I'm going to read it out loud and give you a printed copy.

If you feel like you need to use another tool during your investigations, please state what tool you'd want to look at and what information you would hope to find there.

And again, as much as possible, it will help us if you can try to think out loud as you go along.

< Hand the participant the first task, and read it aloud. Tasks will contain a build #, short motivation, and the task. >

< Continue until time runs out (leave 15 mins at least to wrap up the session). Allow the user to proceed with the task until you don't feel like it's producing any value or the user becomes very frustrated. >

< DURING TASK -- If user is trying to figure something out, let them try for a while then provide some guidance. If user asks for help to do something -- ask them how they would expect to do it and why? Then show them the correct way to do it if still stuck. Make note of this. >

Wrapping Up

Thanks, that was very helpful. I just have a few more questions for you now that you've had a chance to use the tool.

< Semi-structured format. Feel free to ask follow-up questions as needed or any other questions that may have arose during the testing. >

1. In your own words, how would you describe the tool?

2. What are 2 things you liked about the tool? Why?

< Allow them to list more if needed. >

3. What are 2 things you didn't liked about it? Why?

< Allow them to list more if needed. >

4. Was there anything in the tool that you did not understand completely?

5. Do you see yourself using this tool? Why or why not?

6. How do you think the tool could help you with the task you mentioned before, if at all?

< Refer to the "Initial Questions" tasks as needed. >

7. What else would you like to be able to do with this tool? Is there anything that the tool doesn't currently support that you would like it to?

8. What other features would you like to see in the tool? Why?

9. If answered yes to "missing tool" question, do you feel like the build graph explorer tool helps satisfy this need? Please explain.

Do you have any questions for me, now that we're done?

< Thank the participant, provide contact information in case they have any more questions, and offer to share results of the study is the participant would like. Ask permission to keep any notes the participant may have taken during the session. >

< Stop the screen recording software. >