Computer assisted interview Testing Tool (CTT)

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Overview

- Development
- Objectives
- CTT components
- Recent updates
- The current testing process - benefits of using the CTT

What is CTT?

- ## CTT is..
  - A tool developed to be used by all involved in the testing process (programmer, tester, coordinator and clients) from beginning to end.

- ## Developed to..
  - to manage and facilitate efficient testing of Blaise questionnaires.

Objectives (1)

CTT was developed by..

- Survey Research Center, University of Michigan

To..

- Increase over-all quality of Computer Assisted Instruments.
- Reduce the cost of testing.
- Increase access to information about the development process by all those involved.

Objectives (2)

Develop a generic testing tool …

- Use on all projects using Blaise
- Results in time and cost savings
- Allows for critical path testing
- Data models (instruments) can be tested at various stages of development

Key components

- **Automated testing tool**
  - Tool captures comments and information about the testing process in a 'bug log' - bug item prioritization.
- **Problem management screen**
  - A functional dashboard – all information about any issue is stored and can be accessed from this screen.
- **Report generator**
  - Reports can be run by all involved and as required.

Key components

- **Pre-load builder**
  - Used to enter or load any data required to test the instrument.
- **Random case generator**
  - tests questionnaire routing using test cases created using random data – ensures all questions have been tested.
- **Administration**
  - Upper level functions – for example, setting-up projects, assign testers to projects, attach specific priorities to different problem types, import master preloads and assign access rights.

GIT 2009 -- National Survey of Young Adults

Forms   Answer   Testing Note   Help   Show Watch Window

Hello, my name is **[Iwer Name]** and I am calling for The University of Michigan...

- ◆ **Provide description of The University of Michigan if R asks**

- ◆ **ENTER [1] to continue**

○ 1. **Continue**

Testing Notes	☐ ☐ ☒
HHL.Intro	

Problem Description

Problem Type

Save

Language

Default   ☐ Screenshot   Cancel

Introduction

Name Informant

Sex Informant

Age Informant

Informant HH Member

Other HH Members

CAI Testing Tool (Version: 4.0.0.0) - [CTTManage]

CTT   Reports   Admin
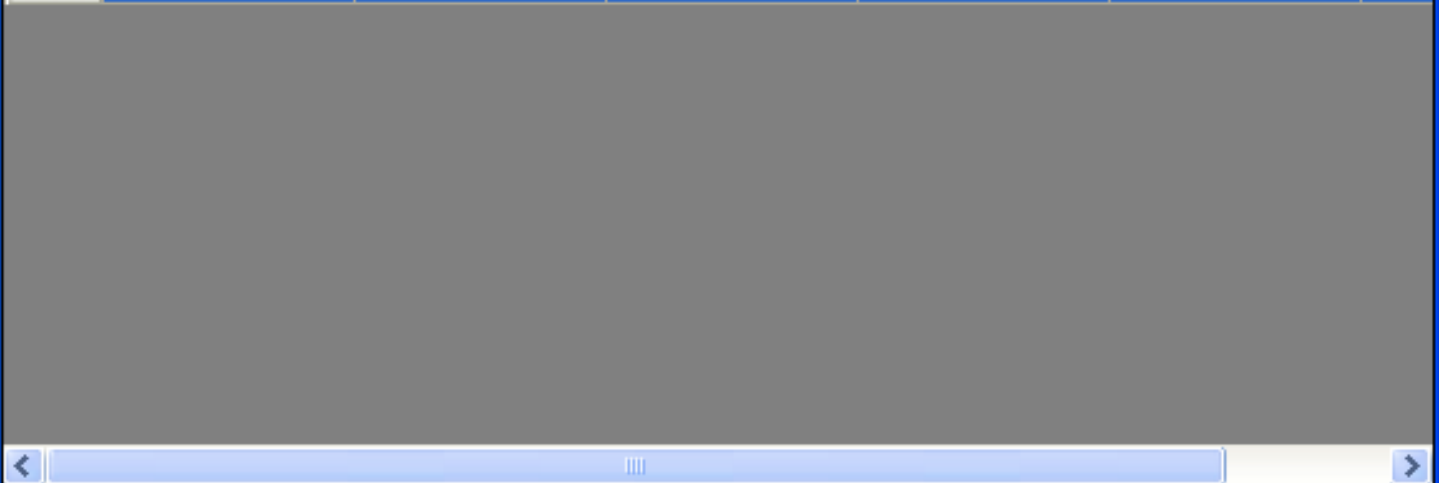
Preload Builder | Instrument Testing | Random Case Generator | Select Study | Exit

Manage Problems

1 of 150

Problem ID	Unique Name	Location	Project ID	Sample ID	Problem Type	Priority Level	Problem Description	CAI Field Name	CAI Meta File Name	C
9749	yliu	N	YH's Local BlaiseS	yliu0001	Jump Destination	High	test problem description	SectionA.A15a	C:\InetPub\wwwroot\Bla	12.
9750	yliu	N	YH's Local BlaiseS	yliu0001	Jump Destination	Low	testererere	SectionA.A15	C:\InetPub\wwwroot\Bla	12.
9751	yliu	N	YH's Local BlaiseS	yliu0001	Code List	Medium	retetete	SectionA.A15aIntro	C:\InetPub\wwwroot\Bla	12.
9752	yliu	N	YH's Local BlaiseS	yliu0001	Jump Destination	Low	erere	SectionA.A15aIntro	C:\InetPub\wwwroot\Bla	12.
9753	yliu	N	YH's Local BlaiseS	yliu0001	Code List	Medium	erere	SectionA.A15aIntro	C:\InetPub\wwwroot\Bla	12.
9754	yliu	N	YH's Local BlaiseS	yliu0001	Code List	Medium	erereer	SectionA.A15aIntro	C:\InetPub\wwwroot\Bla	12.
9755	yliu	N	BlaiseSTest 1 (BDB)	yliu0001	Code List	Medium	rere	SectionA.SecA_Intr	\\blaiseSTest\wwwroot\	12.
9758	yliu	N	Normal Blaise	yliu0001	Jump Destination	Low	wew	SectionA.A3	C:\InetPub\wwwroot\Bla	12.
9759	yliu	N	Normal Blaise	yliu0001	Code List	Medium	wewew	SectionA.A3	C:\InetPub\wwwroot\Bla	12.
9760	yliu	N	Normal Blaise	yliu0001	Code List	Medium	1212	SectionA.SecA_Intr	C:\InetPub\wwwroot\Bla	12.
9761	yliu	N	BlaiseSTest 1 (BDB)	yliu0001	Code List	Medium	erere	SectionA.A8	\\blaiseSTest\wwwroot\	12.
9762	yliu	N	BlaiseSTest 1 (BDB)	yliu0001	Code List	Medium	1212	SectionA.A12b	\\blaiseSTest\wwwroot\	12.
9788	yliu	N	YH's Local BlaiseS	yliu0001	Code List	Medium	erereer	SectionA.SecA_Intr	C:\InetPub\wwwroot\Bla	01.
9789	yliu	N	YH's Local BlaiseS	yliu0001	Jump Destination	Low	erereererere	SectionA.SecA_Intr	C:\InetPub\wwwroot\Bla	01.
9790	jostergr	N	BlaiseSTest 1 (BDB)	jostergr0001	Jump Destination	Low	this is jason test	SectionA.A4	\\blaiseSTest\wwwroot\	01.
9791	yliu	N	BlaiseSTest 1 (BDB)	yliu0001	Code List	Medium	rerere	SectionA.A2a	\\blaiseSTest\wwwroot\	01.
9792	jostergr	N	BlaiseSTest 1 (BDB)	jostergr0001	Jump Destination	Low	test	SectionA.A3	\\blaiseSTest\wwwroot\	01.
9793	jostergr	N	BlaiseSTest 1 (BDB)	jostergr0001	Code List	Medium	this is a test of the scree	SectionA.A2	\\blaiseSTest\wwwroot\	01.
9794	yliu	N	YH's Local BlaiseS	yliu0001	Code List	Medium	erereer	IWComplete	C:\InetPub\wwwroot\Bla	01.

Problem ID: 9749   Sample ID: yliu0001   Created By: yliu   Date Created: 12/21/2009

CAI Field Name: SectionA.A15a   CAI Block Name: SectionA   CAI Date: 12/18/2009

CAI Question Text:

Project ID: YH's Local BlaiseS   [Open Audit Trail] [Open Screen Shot]

Problem Type: Jump Destination   Assigned Person: Who Fixed: Who Tested:

Problem Status: Not Fixed   Level of Priority: High   Date Fixed: 03/04/2010   Date Tested:

Problem Description:

test problem description 33

10/12/2010 10:25:00 AM

10/13/2010 1:10:16 PM

| 9793 | jostergr | N | BlaiseISTest 1 (BDB) | jostergr0001 | Code List | Medium | this is a test of the |
| 9794 | yliu | N | YH's Local BlaiseIS | yliu0001 | Code List | Medium | erereer |

Problem ID: 9749   Sample ID: yliu0001   Created By: yliu   Date Created: 12/21/2009

CAI Field Name: SectionA.A15a   CAI Block Name: SectionA   CAI Date: 12/18/2009

CAI Question Text:

Project ID: YH's Local BlaiseIS   [Open Audit Trail] [Open Screen Shot]

Problem Type: Jump Destination   Assigned Person: Who Fixed: Who Tested:

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Problem Description:

test problem description 33

10/12/2010 10:25:00 AM

10/13/2010 1:10:16 PM
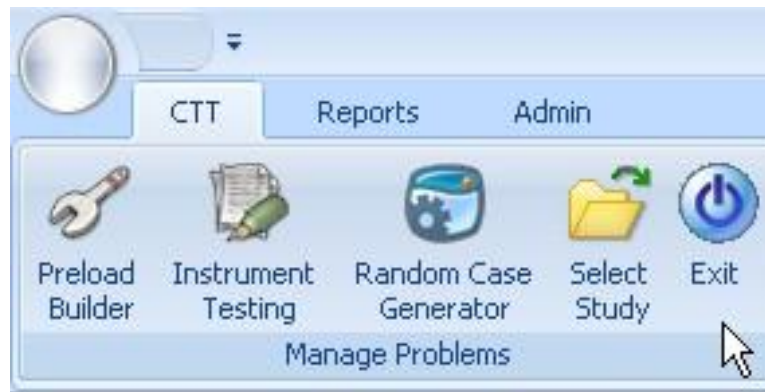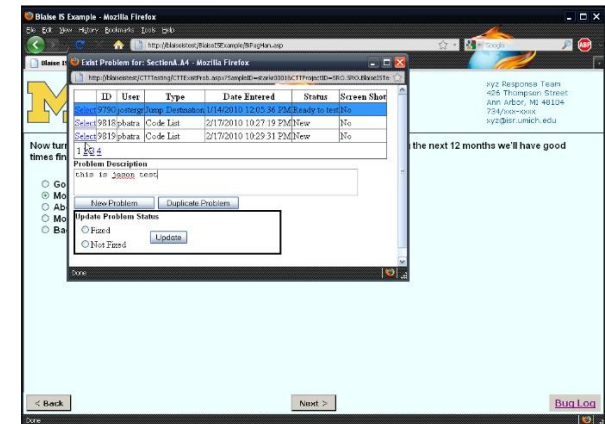
Recent developments

- Integration of BlaiseIS web-based testing
- Updated functionality to the "Manage Problems" screen
- Updated "Ribbon" user interface

Tester

- ## Direct access to the CTT

  - ### one main bug log

  - ### tool 'stamps' comment with field name/path, testers name, attaches additional data – e.g. screen shot)

- ## Existing problem button

  - ### eliminate duplication of effort

Tester

- ## Screen shots
  - Especially useful when recording comments on screen layouts or strange display issues

- ## Central creation of testing cases
  - The manager can create a 'master scenario' for testing an instrument
  - Tester can save their own scenarios to re-test, so data does not have to be re-entered
  - A shared pool of master cases can be prefilled

Tester

- ## Remote testing
  - provides opportunity to use off site testers (clients, field interviewers)

- ## Sharing test cases
  - reduces time required to 'recreate' problems

- ## Targeted re-testing
  - Ready to test report – no time wasted testing problems which have not been fixed.

Programmer

- Consolidated list of problems
  - Lists all problems on one screen and in a standard format with all relevant information
  - Elimination of missing or incorrect variable names

- Reporting
  - Built-in standardized testing reports save programmers time
  - Can focus on highest priority items
  - Can easily print copy for offline use

Programmer

- ## Identifying problems
    - The ability to sort and manipulate the list of problems helps identify similarities between problems and lead to further common problems being found.

Testing coordinator

- Control over the testing process
  - Previous job – managing conflicting Excel bug logs
  - Current job – acting as a filter for the programmers by prioritizing tester comments
- Setting up scenarios
  - Ability to save scenarios for all testers eliminates the need to specify testing scenarios
  - Coordinators or testers can save scenarios to be used by others.

Testing coordinator

- Managing problems
  - Just one list per project
  - List can be prioritized, sorted and allocated to programmers to fix from one place.
- Information about the testing process
  - Built-in reports allow the manager to access information on progress at any point

Objectives - evaluation

- CTT was designed to…
  - Improve the quality of CAI instruments through standardized testing procedures.
  - Reduce testing costs.
  - Increase access to information about the CAI development process through preset and ad-hoc reports.

Summary

- **Fulfilled all the objectives ……**
  - ✓ Testing process more efficient – saving time, money and has improved the quality of CAI questionnaires.
  - ✓ Using the CTT ensures all projects are following a standardized approach to testing.
  - ✓ CTT stores and allows access to information about the entire testing process, providing a source of data about the questionnaire development stage and ability to run reports easily at any time.
  - ✓ Repository for future projects – for example, a future wave or similar project.

Summary

- Smoother and more harmonious testing process - all those involved working in the same environment providing accurate and appropriate information which can be shared easily.

- Found the CTT to be a useful tool that reduces the burden of testing on all those involved.

- Although the quality of a questionnaire can only be as good as the time spent testing, the tool allows the tester to concentrate their efforts on releasing an instrument with minimal errors.

Questions