

Substance Abuse and Mental Health Services Administration

Moving from Blaise 4.8 to Blaise 5: Preparing a prototype survey based on the NSDUH

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- The views expressed in this presentation do not necessarily reflect the official position or policies of SAMHSA or the U.S. Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.



NSDUH Study Background

- The National Survey on Drug Use and Health (NSDUH) provides national, state and sub-state data on substance use and mental health in the civilian noninstitutionalized population ages 12 and older.
- Approximately 700 field interviewers (FIs) working in all 50 states & D.C.
- Approximately 140,000 household screenings and 67,500 interviews are completed annually.
- Conducted by RTI under contract with SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ).



NSDUH Survey Instrument

- NSDUH survey instrument run on Windows laptops
- Programmed in Blaise 4.8 and includes approximately 40 modules/3000 question screens
- Key functions:
 - Uses alien router to play text-to-speech audio
 - Pop up calendars for particular questions
 - Images for prescription drugs in some questions
 - Question help for some questions



Blaise

- Programming language widely used for computer-assisted surveys
- Created by Statistics Netherlands in the mid 1980s; written in Turbo Pascal to run in an MS-DOS environment
- Late 1990s Blaise 4 for Windows, written in Delphi
- 2008 StatNeth created Blaise 5 using .NET; a complete overhaul, extends Windows/web survey capabilities and targets mobile platforms

*http://www.blaise.com/products/general-information



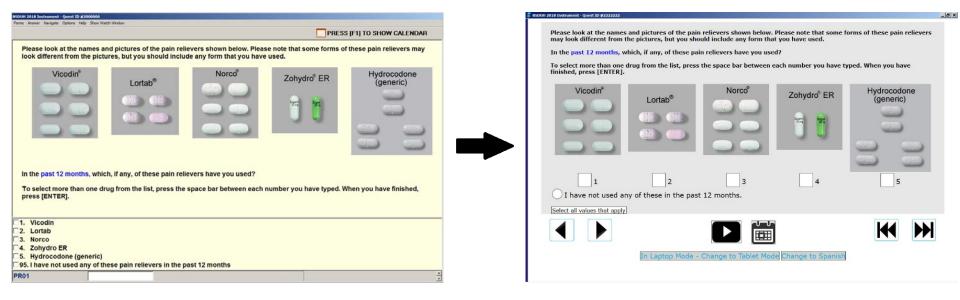
Motivation for Moving to Blaise 5

- Emerging technology
- Take advantage of its features
- Will eventually become the industry standard



Changes in Blaise 5 that impact NSDUH

- No "alien routers" to perform external tasks (handled with Blaise 5 Data Entry API)
- Data stored differently
- Screen layouts defined in "resource database" file (no more modelib.bml file)



Changes in Blaise 5 that impact NSDUH (cont'd)

- Differences in working with media files
- Audit trail data generated differently (no more audit.dll)
- No longer supports HTML help files



Key features needing to be reprogrammed

- Text-to-speech audio
- Image display
- Pop-up calendars
- Question help
- Screen layouts



Going from Blaise 4.8 to Blaise 5

- Blaise 4 to 5 utility converted much survey code successfully, still needed some manual modifications (for layouts, some comparison logic, fix warnings)
- Sample C# project SpeechWPF included with Blaise 5 was very helpful!
- Modified SpeechWPF to run the NSDUH survey and use RTI's implementation of text-to-speech audio and display question helps.
- OnEnter and OnLeave event handlers for a field pane useful for managing pop-up calendars



Touchscreen laptop capability and touchscreen-related features of Blaise 5

- Enlarged size of radio buttons and checkboxes
- Response selection by tapping on images
- Added buttons for navigation and feature controls (replay audio, calendar display, question help)
- Issues:
 - Larger buttons/controls, less room for screen text
 - No scrolling by touching main screen
 - No finger tip zoom-in
 - Virtual keyboard



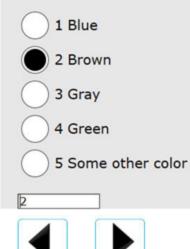
Example screens

Screen with enumerated response categories

🖡 NSDUH 2018 Instrument - Quest ID #2222222

The last question was a Yes-No question. Other questions will have more answers to choose from, and you will pick your answer from a list.

Practice Question #2: What color are your eyes? Put in the number that best fits you and press [ENTER].







Set type question ("all that apply" responses)

SDUH 2018 Instrument - Quest ID #2222222 _ 8 × Some questions will let you choose more than one answer. For these questions, you will use the space bar to separate the answers you type in. Practice this now. Practice Question #3: What kinds of music do you listen to? To select more than one kind of music from the list, press the space bar between each number you type. When you have finished, press [ENTER] to go to the next question. 1 Classical 2 Country 3 Hip Hop 4 Jazz 5 Latin American/Spanish 6 Folk/Traditional 7 Pop/Rock 8 Soul/R&B 9 Something Else 4-7

🖡 NSDUH 2018 Instrument - Quest ID #2222222

A number of questions will ask about the past 12 months, that is since this date last year. According to the calendar February 20, 2017 was 12 months ago. That will be your 12-month reference date and can be found in red on the calendar. Today's date can be found in green.

Press [ENTER] to continue.





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Set type question with clickable images

🖡 NSDUH 2018 Instrument - Quest ID #2222222

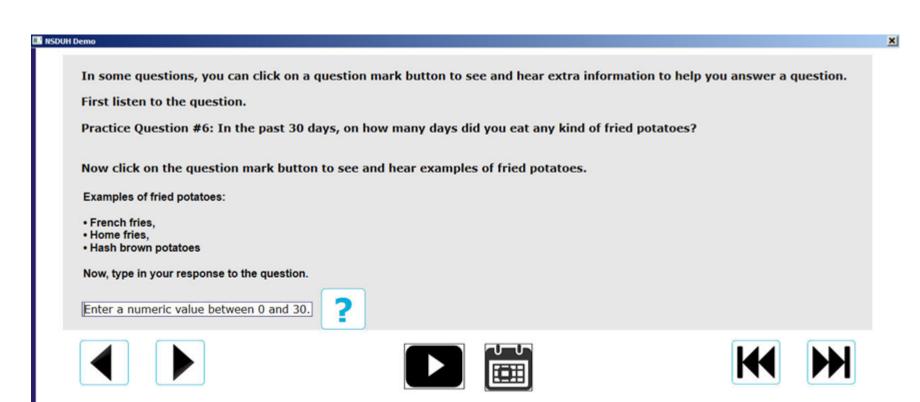
Please look at the names and pictures of the pain relievers shown below. Please note that some forms of these pain relievers may look different from the pictures, but you should include any form that you have used.

In the past 12 months, which, if any, of these pain relievers have you used?

To select more than one drug from the list, press the space bar between each number you have typed. When you have finished, press [ENTER].



Numeric response question with question help



Future Development

- Ensure that all previous features (TTS audio, images, calendars, question help) are integrated, well-tested, and working reliably
- All screens will need to be reviewed and possibly modified, due to differences in how Blaise 5 handles screen layouts
- Writing out survey and audit trail data to a SAS-readable format for data processing



Future Development (cont'd)

- Retesting survey logic to make sure that it still works
- Survey interaction with external applications
- Take advantage of new Blaise 5 features/ functionality that continues to be added
- Evaluate usability





- Blaise 5 does many things differently than Blaise 4
- Much of our Blaise 4 code was converted to Blaise 5 using the conversion utility, but layouts and special features needed to be implemented differently
- There's still work to be done



Questions?



Thank you!

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