

# Experience with Blaise 5 Layouts and Templates

Sharon Johnson

Richard Squires & Michael Johnson

US Census Bureau

October 6, 2016

# Overview

- Research, learn, and test many of the Blaise 5 layout and template features.
- Familiarize ourselves with the different features for implementing templates in the Blaise 5 software.

# Overview

- Identify how current functionality in Blaise 4 instruments can be made available using Blaise 5.
- Identify lost functionality that the interviewers are familiar with (if any).

# Development Approach

- Develop the 2010 Census Short Form
- Use current laptops (hp Revolve 810)
- Initial solution developed from the paper form
  - Meetings -> implementing changes
  - Hands on sessions -> implementing suggestions
  - Sponsor views -> implementing suggestions

# Design Approach

Keep the parallel tabs area

Allow 2-3 questions per screen

Interview seems slow having only 1 question per screen and it leaves a lot of “white” space

Hit the server after each question

# Design Approach

Use dedicated screen space for signals and error messages

Display the DK and RF as buttons for selection if they are valid answer options

# Implementation

Template features available in Blaise 5 incorporated

- Highlight active field in table.
- Auto-Advance for radio buttons.
- Adjust length & width of error messages.
- Keep Status bar using minimum information, Incorporate info tab for additional information
- Use translatable pictures for Navigation in Status Bar.

# Features Researched

## Toggle Visibility

- Help
- Flashcards
- Don't Know and Refusals

CENSUS2010

CENSUS2010 FAQ HHROS EXIT INFO ENGLISH

◆ Please provide information for each person living here. Start with a person living here who owns or rents this house, apartment, or mobile home. If the owner or renter lives somewhere else, start with any adult living here. This will be Person 1.

What is Person 1's First name? John

What is 's Middle initial?

What is 's Last name?

What is 's sex?  Male  Female

We'd like to know which of your previous day's activities were volunteer activities, because we want to be sure to measure this important unpaid contribution to the economy and to society. In this survey, you have volunteered if you have done something for the benefit of a cause or of people. This must have been done for or through an organization and you must not have been paid. (Some volunteers are reimbursed for expenses, such as mileage or meals, incurred during the volunteering activity.) Volunteering must have been done of your own free will. For example, doing court-ordered community service would not be counted as volunteering. Please do not include as volunteering any informal helping activities done for household or non-household members. (We count those activities as care and helping, rather than "volunteering.")

FNAME END 11:46 AM

# Features Researched

- Tooltip
  - Use for Help
  - Incorporated a large amount of text to verify display
- Hover only appears to work when using a keyboard mouse. Considering touch, the lack of the cursor on mobile devices was a concern for this feature.

# Features Researched

## Buttons

- Buttons provide a lot of flexibility
- Initially, buttons incorporated in the question text didn't appear to display in IE and Chrome internet browsers
- Additional work in the templates seemed to make them appear as expected

# Templates

Everything that is presented visually requires work in the Templates.

Master Template

Custom

Receipt page

Field pane

Data Value

Category

# Edits/Errors

When displaying...

- Avoid screen expansion
- Avoid introducing scrolling
- Pop-up box not available due to incompatibility across multiple platforms

Implementation

- Remove excess lines at the top of the screen and reserve space in that area for errors

# Enhancements

- Allowed the addition of HH members
- Use of Arrow keys to move between questions
- Signal for same-sex partners and age

# Date Of Birth

- Age drop-down
- Determine start year
- Use of Pre-filled dates (January 1, YYYY)
- Provided a signal if default date of January 1 is not changed

Initially considered prefill of Month/Day values with the year populated based on age entered.

CENSUS2010 FAQ HHROS EXIT INFO ENGLISH

AGE ENTERED (5) AND AGE CALCULATED FROM DOB (7) DO NOT MATCH. [Go to Age](#)

 What is Jane Doe's month, day and year of birth?

January / 1 / 2009

Concluded it's best not to prefill the date of birth and allow entry for DOB then age.

CENSUS2010

CENSUS2010 PRIMARY HHROS FAQ HHROS EXIT INFO ENGLISH

What is Jane Doe's month, day and year of birth?(mm/dd/yyyy)  
( based on age.)

DOB			
Age	Select a value		
Race	<input checked="" type="checkbox"/> White	<input type="checkbox"/> American Indian or Alaska Native	
	<input type="checkbox"/> Hispanic, Latino, Spanish	<input type="checkbox"/> Middle Eastern or North African	
	<input type="checkbox"/> Black or African Am.	<input type="checkbox"/> Native Hawaiian or Other Pacific Islander	
	<input type="checkbox"/> Asian	<input type="checkbox"/> Some Other Race, ethnicity, or origin	

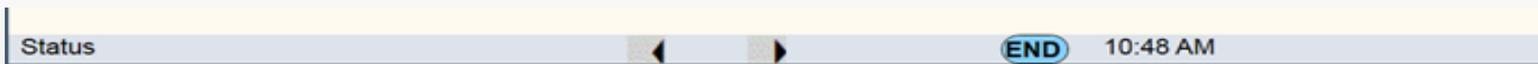
# Navigation

For up and down arrows, implement the shortcut key assignments :

- In the resource editor, select your master template(s), the very first row (Master Page Template), select the events tab.
- Click on the icon for edit shortcuts.
- Add OnCtrlUp (keystroke) and add OnCtrlDown(keystroke).
- For OnCtrlUp, assign the action Previousfield, for OnCtrlDown, assign the action Nextfield.

# Navigation

Use translatable pictures (arrows) to reduce the wordiness on the status bar.



# Tables in Templates

- Initially, it didn't seem that we could clearly identify the active field with the color change.
- Displaying the Question Text in a table

# Tables

- Jumping issue when the answer options were different sizes.
- Displaying the entire answer of a drop down
- Making the connection of rules and template variables

What the status

#	Status	First Name	MI	Last Name	Gender	Related	
1	Added	firstname1	1	lastnamefamily	M	Reference person	
2	Added	Returned from school or college				F	Husband or wife
3	Added	Entered because of marriage/separation/divorce				M	Biological son or daughter
4	Deleted	Person died				F	Biological son or daughter
5	Deleted	Left for school or college				F	Biological son or daughter
	Deleted	Entered institution					
	Deleted	Left because of marriage/separation/divorce				F	Biological son or daughter
	Deleted	Person left household for reasons other than above					
	Deleted	Visitor					

We found that incorporating the layout setting is still time consuming.

- Using “promote” for each setting proved to consume a lot of time.
- This required 90 promote picks
- Another challenge we encountered is identifying the best way to handle different data types in the table.

# External Calls

- Help
- Flashcards
  - Must work on all devices
    - CHM
    - PDF (Needs parameters from command line)
    - Hover over capability

# Lookup Table

CENSUS2010 PRIMARY HHROS FAQ EXIT INFO ENGLISH SPANISH

Answer required

- ◆ Enter State first letter for lookup
- ◆ Press 9 for the full list screen of states.
- ◆ select state then next to continue.

9

STATEABREV	STATEText
AL	Alabama
AK	Alaska
AZ	Arizona
AR	Arkansas
CA	California
CO	Colorado
CT	Connecticut
DE	Delaware
DC	Dist. of Columbia
FL	Florida
GA	Georgia
HI	Hawaii
ID	Idaho
IL	Illinois
IN	Indiana
IA	Iowa

CHNG\_M END 1:38 PM

# Remarks

- Access using a single touch motion
- Without use of the keyboard.
  - A Green “R” is displayed to allow touch for entry of a remark.
  - Once a remark has been entered, the paperclip is displayed.
- The remarks feature works well.

DOB	<input type="text" value="R"/> <input type="text" value=""/> / <input type="text" value=""/> / <input type="text" value=""/>
Age	<input type="text" value="R"/> <input type="text" value="Select a value"/>
Race	<input type="checkbox"/> <b>White</b> <input type="checkbox"/> <b>American Indian or Alaska Native</b> <input type="checkbox"/> <b>Hispanic, Latino, Spanish</b> <input type="checkbox"/> <b>Middle Eastern or North African</b> <input type="checkbox"/> <b>Black or African Am.</b> <input type="checkbox"/> <b>Native Hawaiian or Other Pacific Islander</b> <input type="checkbox"/> <b>Asian</b> <input type="checkbox"/> <b>Some Other Race, ethnicity, or origin</b>

Age	<input type="text" value="R"/> <input type="text" value="Select a value"/>
	<input type="text"/>

Age	<input type="text" value="10"/>
-----	---------------------------------

# Tools Incorporated

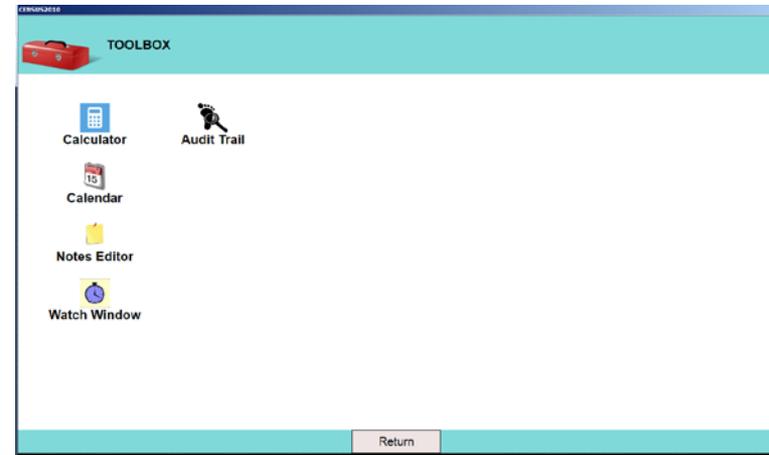
Calculator

Calendar

Watch Window

Audit Trail

Notes Editor (Need to pass in parameter)



- Would like these accessible from a menu option in the template. Sponsors didn't like that the tools page covers the entire screen.

# Audit Trail Output

SQLite Database Browser - C:/Blaise5/Settings/AuditTrailData.db

File Edit View Help

New Database Open Database Write Changes Revert Changes

Database Structure Browse Data Edit Pragmas Execute SQL

Table: EventData

SessionId	InstrumentId	TimeStamp	Content
1 (07ada9b7-8e7e-48f9-a182-ac5ef622a842)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 10:18:37...	<KeyboardEvent KeyStrokes="[CTRL-d][CTRL-d][CTRL-d][CTRL-r][CTRL-k][CTRL-k][C...
2 (07ada9b7-8e7e-48f9-a182-ac5ef622a842)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 10:18:50...	<LeaveFieldEvent FieldName="Person.FirstName" Value="SDFSDF" AnswerStatus="Response...
3 (07ada9b7-8e7e-48f9-a182-ac5ef622a842)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 10:18:50...	<ActionEvent Action="NextField()" />
4 (07ada9b7-8e7e-48f9-a182-ac5ef622a842)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 10:18:50...	<EnterFieldEvent FieldName="Person.LastName" AnswerStatus="Empty" />
5 (07ada9b7-8e7e-48f9-a182-ac5ef622a842)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 10:18:50...	<UpdatePageEvent LayoutSetName="Interviewing" PageIndex="1" />
6 (07ada9b7-8e7e-48f9-a182-ac5ef622a842)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 10:18:50...	<EnterFieldEvent FieldName="Person.LastName" AnswerStatus="Empty" />
7 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:06...	<KeyboardEvent KeyStrokes="z[[BACK][BACK]daniel[TAB]" />
8 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:10...	<LeaveFieldEvent FieldName="Person.FirstName" Value="daniel" AnswerStatus="Response" />
9 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:10...	<ActionEvent Action="GotoField(Person.LastName)" />
10 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:10...	<EnterFieldEvent FieldName="Person.LastName" AnswerStatus="Empty" />
11 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:10...	<UpdatePageEvent LayoutSetName="Interviewing" PageIndex="1" />
12 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:10...	<EnterFieldEvent FieldName="Person.LastName" AnswerStatus="Empty" />
13 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:11...	<KeyboardEvent KeyStrokes="stewart[ENTR]" />
14 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<LeaveFieldEvent FieldName="Person.LastName" Value="stewart" AnswerStatus="Response"...
15 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<ActionEvent Action="NextField()" />
16 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<EnterFieldEvent FieldName="Person.Age" AnswerStatus="Empty" />
17 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<UpdatePageEvent LayoutSetName="Interviewing" PageIndex="1" />
18 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<EnterFieldEvent FieldName="Person.Age" AnswerStatus="Empty" />
19 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<KeyboardEvent KeyStrokes="I[ENTR]" />
20 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<LeaveFieldEvent FieldName="Person.Age" Value="1" AnswerStatus="Response" />
21 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<ActionEvent Action="NextField()" />
22 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<EnterFieldEvent FieldName="Person.Town" AnswerStatus="Empty" />
23 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<UpdatePageEvent LayoutSetName="Interviewing" PageIndex="1" />
24 (a0721a46-939a-4ae3-8d5f-b8fbc4f6f03d)	{a3755fa5-c171-4c17-8b1b-c2212d197988}	2014-07-18 11:19:13...	<EnterFieldEvent FieldName="Person.Town" AnswerStatus="Empty" />

1 - 24 of 808

Go to: 1

SQL Log

```

PRAGMA foreign_keys = "0";
PRAGMA encoding
SELECT type,name,sql,tbl_name FROM
sqlite_master UNION SELECT
type,name,sql,tbl_name FROM
sqlite_temp_master;
SELECT COUNT(*) FROM (SELECT
'rowid',* FROM 'EventData' ORDER
BY 'rowid' ASC);
SELECT 'rowid',* FROM 'EventData'
ORDER BY 'rowid' ASC LIMIT 0,
50000;
SELECT type,name,sql,tbl_name FROM
sqlite_master UNION SELECT
type,name,sql,tbl_name FROM
sqlite_temp_master;
SELECT COUNT(*) FROM (SELECT
'rowid',* FROM 'EventData' ORDER
BY 'rowid' ASC);
SELECT 'rowid',* FROM 'EventData'
ORDER BY 'rowid' ASC LIMIT 0,
50000;
    
```

Plot SQL Log

UTF-8

# Items addressed by Statistics Netherlands

- Data Synching
- Bug where a swipe action was executed multiple times
- Problem with not creating Audit Trail StartSessionEvent if RunMode=ThickClient
- Selecting Text to AutoAdvance

# Items to be addressed by Statistics Netherlands

- Selection of Auxfields in a group for the Watch Window tool
- Ability to add a drop-down box in the templates. (Sept 2016)

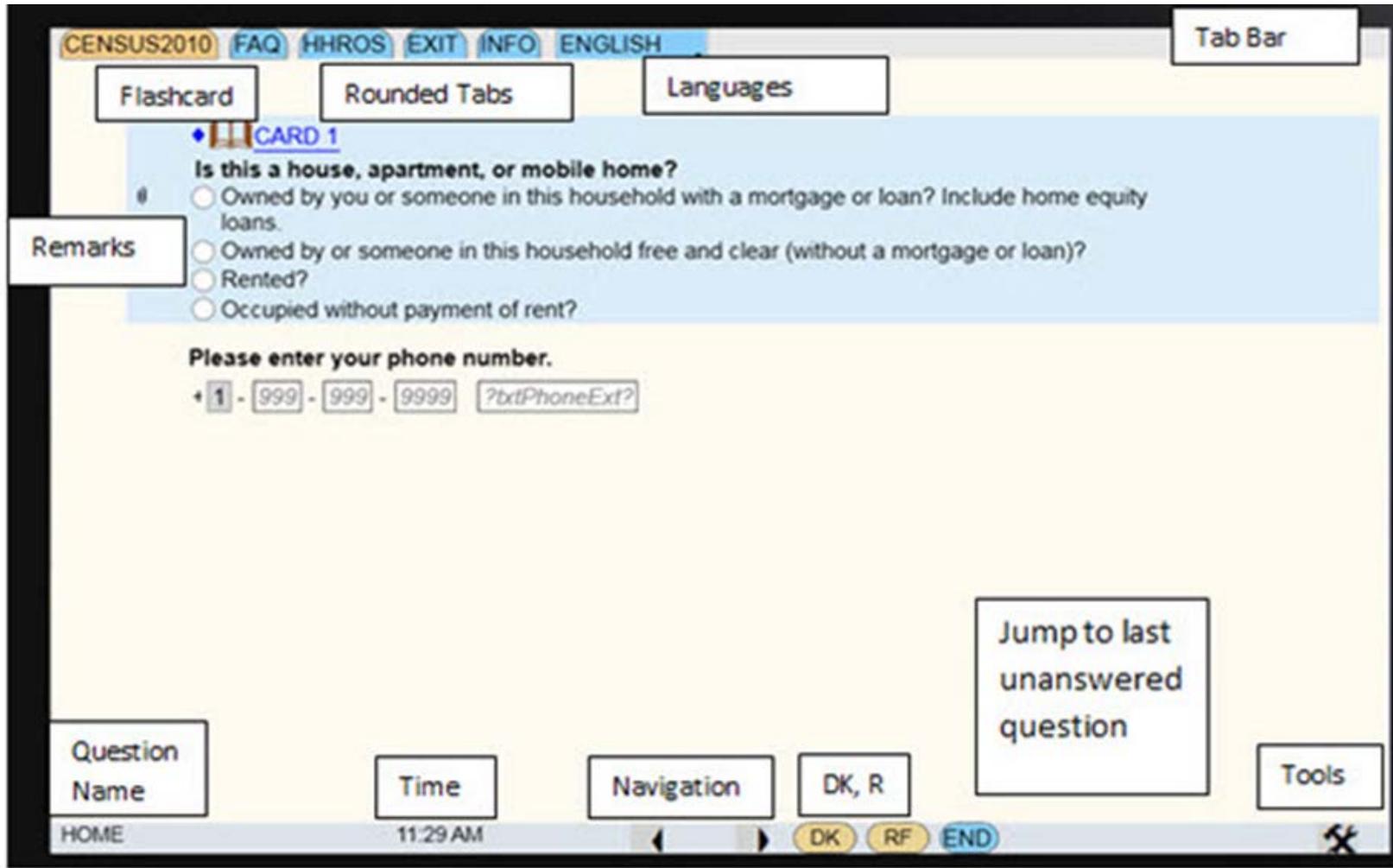
# Concerns

- Response Value Template
- Text labels on buttons
- “Need answer” errors
- Print
- Tables
- Answer Required
- Fills

# Observation

- Buttons
- Fonts
- Layouts
- Tooltip
- Watermarks
- Multimode

# Summary



# Thank You

Sharon Johnson

Sharon.R.Johnson@census.gov

Michael Johnson

Michael.A.Johnson@census.gov

Richard Squires

Richard.J.Squires.jr@census.gov