

Converting the American Housing Survey Blaise 4 instrument to Blaise 5

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Topics

- Introduction to the AHS Blaise 4 Instrument
- Goals for the migration of the AHS to Blaise 5
- Challenges
- Other areas we looked into
- Conclusions

Introduction to the AHS Blaise 4 Instrument

- Current mode is CAPI
 - Collects data on Housing Quality and costs
 - Physical conditions of nation's housing units
 - Indicators of housing and neighborhood quality
 - Home improvement activities and costs
 - Mortgage, rental and utility costs
 - Demographic characteristics
 - In production using Blaise 4 for 8 years, large complex survey



Goals of the migration for the conversion of the AHS into Blaise 5

- Determine Level of effort required to convert from B4 to B5
 - Steps in the use of the conversion tool
- Attempt conversion with minimal changes to original code
 - Would this be even possible?
- Effort to deploy in a Browser (IE and Firefox)
- Blaise 520.1171 was used first. Final version used Blaise 5.3.0.1517

Level of effort Migrating to B5 - steps

- Conversion tool
 - Conversion of the instrument
 - Conversion of the external files used by the instrument
 - Conversion of the Manipula scripts used around the instrument
 - The setup script to load cases.
- Adjustments to final solution, conversion created several solution
 - Main solution (inst)
 - External solutions as project
 - Solution adjustment

Challenges



Challenges encountered along the way

- Blaise 5 – Default templates with no changes
 - Look and feel were far different from original Blaise 4
 - Fills were not displayed properly

♦ [Review all Categories](#)

```
HH  R  LN  NAME                SEX  Relationship      ED  Race      OR  MAR      LNPARG  LNPARG2  AGE
1<space co John Doe<space count Female Ref. Person <spac <spa<space DV <spa <sp
1<space co Jane Doe<space count Male  Son <spac Multi <spa<space MR <spa1<spac <sp
```

- Questions did not come on route as expected (delayed)
- Demographic block busy and hard to navigate

Challenges encountered along the way (cont.)

- Blaise 4 – Existing Code Challenges
 - Redundancy in the code
 - Different styles in the code
 - Lack of parameterization
 - Fully Qualified References
 - Data Processing output with Instrument

Challenges encountered along the way (cont.)

- Blaise 5 **changes** required
 - Need to modify code to function as in Blaise 4
 - Usage of procedures and function
 - Constructing fills into new format for Blaise 5
 - Proper parameterization – Remove dot notation
 - Goal was to use “out of the box” templates, but new templates needed
 - Master template
 - Phone templates
 - Address data template
 - Two dimensional template (Blaise 4 table)
 - Group templates
 - Group templates were displaying all questions on route / should not have
 - Layout for CAPI and WEB

Challenges encountered along the way (cont.)

- Master template to be used for our survey
 - Header Template
 - Containing the survey name & Language navigation
 - Parallel Tabs
 - Central panel for data collection
 - Navigation push buttons
 - Navigation forward / backward & Home / End option
 - Status Bar
 - Display information: caseid, variable name, respondent name



American Housing Survey -- Version 7.38

ENGLISH ▾

? [F1] What year was your home built? 2010 - present ▾

? [F1] What year was your home built? 2017

What decade was your home built? Select a value ▾

? [F1] Do you know how many years old your home is? []

Gut rehabilitation is defined as the general replacement of the interior of a building including the HVAC, plumbing and electrical components.
Has this housing unit undergone a gut rehabilitation in the last 10 years? Yes
 No

? [F1] Last time we recorded your house was part of a condominium. Is this information still correct? Yes
 No

? [F1] (Last time) we recorded your house was part of a cooperative. Is this information still correct? Yes
 No

? [F1] Is this house part of a condominium? Yes
 No

? [F1] Is this house part of a cooperative? Yes
 No
 Don't know
 Rather not answer

? [F1] Is this house part of a homeowner association? Yes
 No

◀ HOME

← PREV

NEXT →

END ▶▶

Caseid: 00000001 Field Name: HOMEASC Respondent Name: John Doe INCSAM: CONTINUING CASE

[AHS](#) [FAQ](#) [Back](#) [HHROS](#) [CR](#)

?[F1] (Last time) we recorded your house was part of a cooperative. Is this information still correct?

Yes

No

? [F1] Is this house part of a condominium?

Yes

No

Don't know

Rather not answer

? [F1] Is this house part of a cooperative?

Yes

No

? [F1] Is this house part of a homeowner association?

Yes

No

◀ HOME

← PREV

NEXT →

END ▶▶

Caseid: 00000001 Field Name: CONDO2 Respondent Name: John Doe INCSAM: CONTINUING CASE



American Housing Survey -- Version 7.38

[AHS](#) [FAQ](#) [Back](#) [HHROS](#) [CR](#)

◆ Please enter your phonenumber
Current phone number:

(123) 456-7890

◀ HOME

← PREV

NEXT →

END ▶▶

Caseid: 00000001 Field Name: NOPHONETYP Respondent Name: John Doe INCSAM: CONTINUING CASE

[AHS](#) [FAQ](#) [Back](#) [HHROS](#) [CR](#)

Mailing address House Number

Physical Address	Labels	Mailing Address
<input type="text" value="12345"/>	House Number	<input type="text" value="12345"/>
<input type="text" value="Building 2"/>	House No. Suffix	<input type="text" value="Building 2"/>
<input type="text" value="my road"/>	Street Name.	<input type="text" value="my road"/>
<input type="text" value="2B"/>	Unit Designation	<input type="text" value="2B"/>
<input type="text" value="turn right out the elevator"/>	GQ Unit Descrip.	<input type="text" value="turn right out the elevator"/>
<input type="text" value="my_wonderful_area"/>	City	<input type="text" value="my_wonderful_area"/>
<input type="text" value="53"/>	State	<input type="text" value="53"/>
<input type="text" value="99999"/>	Zip Code	<input type="text" value="99999"/>
<input type="text" value="9999"/>	Zip Code Ext.	<input type="text" value="9999"/>



RULES

```
/** RPV applying SHOW to variables as this is using a table template  
// and does not render well in hiding variables off route.  
IF iPHONENUM = EMPTY THEN  
    TELHH.ASK  
ELSE  
    TELHH.SHOW  
ENDIF  
  
IF TELHH = Yes THEN  
    TELAND  
ELSE  
    TELAND.SHOW  
ENDIF  
IF TELHH = Yes OR iPHONENUM <> EMPTY THEN  
    TELIN  
  
ELSE  
    TELIN.show  
ENDIF  
  
IF TELHH = NO OR TELHH = DK OR TELHH = RF THEN  
    TELAV  
  
ELSE  
    TELAV.show  
ENDIF  
IF TELAV = YES THEN  
    TELWHR  
    TELCELL  
ELSE  
    TELWHR.show  
    TELCELL.show  
ENDIF  
ENDGROUP
```

[AHS](#) [FAQ](#) [Back](#) [HHROS](#) [CR](#)

(With whom am I speaking?)

- John Doe
- Jane Doe

[← HOME](#)

[NEXT →](#)

[END >>](#)

Caseid: 00000001 Field Name: HCHGRES Respondent Name: John Doe INCSAM: CONTINUING CASE

♦ Phone contact information for this household.

If we need to contact you by telephone to followup on missing data, is there a telephone in this house?

Y
e
s

N
o

Is there a land-line telephone in this house?
Do not count cellular phones, or any phone line that is used only for a computer or fax machine.

Y
e
s

N
o

Is a telephone interview acceptable?

Y
e
s

N
o

Is there a telephone elsewhere on which people in this household can be contacted?

Y
e
s

N
o

Where is the phone located?

How many adults (age 18 and over) in this household have a cell phone for personal use?

AHS Blaise 4 vs Blaise 5 Screen Example

American Housing Survey -- Version 7.38

United States Census Bureau American Housing Survey -- Version 7.38 ENGLISH

AHS FAQ Back HHROS CR

? [F1]

Is 105 22 BEACH RD main a house, an apartment, a manufactured/mobile home, or some other type of residence?

House

Apartment, flat

Manufactured/mobile home

HU in nontransient hotel, motel, etc

HU, permanent in transient hotel, motel

HU in rooming house or boarding house

Boat or recreational vehicle

Tent, cave, or railroad car

HU not specified above, specify

Unoccupied site for manufactured/mobile home, trailer, or tent

Group Quarters

HOME PREV NEXT END

Caseid: 00000001 Field Name: htype Respondent Name: John Doe INCSAM: CONTINUING CASE

[AHS](#) [FAQ](#) [Back](#) [HHROS](#) [CR](#)

Ino	Name	SEX	Relationship	Ver Age	BirthM	BirthD	BirthY
1	John Doe	Female ▾	Select a value ▾	Yes ▾	November ▾	17	1962
2	Jane Doe	Male ▾	Adopted son or daughter ▾		February ▾	1	1980

[Suppress](#)

So Jane Doe is now 38 years old.

Is this correct?

- ◆ If yes, suppress and continue.
- ◆ If no, go back and correct.

◀◀ HOME

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NEXT →

END ▶▶

Caseid: 00000001 Field Name: VERAGE1 Respondent Name: John Doe INCSAM: CONTINUING CASE



American Housing Survey -- Version 7.38

ENGLISH ▾

AQ Back HHROS CR

no	Name	Sex	REL	AGE	Origin	Race
1	John Doe	Female ▾	Select a value ▾	55	No ▾	<input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian or other Pacific Islander <input type="checkbox"/> Other; Specify
2	Jane Doe	Male ▾	Son or daughter ▾	38	No ▾	<input type="checkbox"/> White <input checked="" type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian or other Pacific Islander <input checked="" type="checkbox"/> Other; Specify

Puerto Rican

◀ HOME

← PREV

00000001 Field Name: ORIGIN Respondent Name: John Doe INCSAM: CONTINUING CASE

Other areas of Blaise 5

- Setting of a Blaise server to deploy the AHS instrument
 - Server Manager, Roles
- Data Output XML
 - Format
- Audit trail XML output
 - Usage for current process
- API
 - Learning and usage for our instrument
- Android & iPhone SDK
 - Needs some help in setting the development environment

Conclusions

- Increased Blaise 5 knowledge / Learning Curve
- Gained understanding of level of effort
- For converting complex instruments into B5 maybe feasible to rewrite from scratch as opposed to modify existing code
- Learning curve for our stakeholders to adapt the new way to administer questions.
- Expanded understanding of requirements for setting up in a server environment

Questions / Comments...

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