



**INSTITUTE FOR SOCIAL RESEARCH • SURVEY RESEARCH CENTER**  
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UNIVERSITY OF MICHIGAN

# **Prototyping Touchscreen Blaise Applications**

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# Overview

- Background
- Dublin tablet workshop
- From Keyboard to touch
- Demo
- Outstanding tasks
- Future exploration



# Background

- ACASI touchscreen prototype using BASIL.
- Later this year, two studies will screen over 50,000 households to identify survey respondents and they would like to have a touchscreen screener application.
- A prototype was built based on work done by Hofman and colleagues in 2013.
- The 2014 Dublin Tablet Workshop...

Hofman, L., Dolmans, R., & de Bolster, G. (2013). *Blaise on a Windows 8 tablet. The Caribbean Netherlands Implementation. The Fifteenth International Blaise Users Conference (IBUC), Washington, DC., USA.*



# Dublin Blaise 4.8 Tablet Workshop

- CSO Dublin, Ireland December 2014. *Organizers*
  - Jacqueline Hunt\*, Michelle Keniry, & Conor MacDomhnaill; CSO Ireland, Cork
  - Garry Dunphy & Ned Dwane: CSO Ireland, Dublin
  - Gerrit de Bolster\* & Peter Sinkiewicz; Statistics Netherlands, Heerlen
  - Johnny Wallace DFPNI, Belfast
  - Karl Dinkelmann; University of Michigan
- Goal to create a tablet best practice paper .
- Please see Jacqueline, if you are interested in hearing more.




# From Keyboard to Touch

- Transition considerations:
  - Interviewer instructions (navigational assistance)
  - Item size differences (i.e. mouse vs. finger)
  - Mode specific presentation (i.e. Screener vs. ACASI applications)
  - Hardware selection considerations (hybrids vs. tablet).
- Essential elements:
  - Menu File: Panels and Controls, visibility expressions, & control actions.
  - Mode Library settings and layout sets.
  - Data storage for dynamic presentation of elements (registry settings, environmental variables, etc).
- Demo of UM Touchscreen Prototype presented in Dublin...



# UM Touchscreen Screener Prototype (1)

University of Michigan: Touchscreen Screener Prototype

←  [F2] ? DKK ! RF Sp →

**Interviewer checkpoint:**

**This is sample id [403346]. Please confirm with the informant that you are at the address listed below.**

**I would like to confirm this address. Is this  
36 W Summit, Ann Arbor, MI 48108?**

**If you've entered the wrong sample line or if the wrong address is listed on the screen, please suspend the case.  
Otherwise, enter [1] to continue.**

**1. Continue**

Address Confirmation  **Continue**

X953\_Confirm 403346 4/13/2015  ENG



# UM Touchscreen Screener Prototype (2)

University of Michigan: Touchscreen Screener Prototype

← [F1] [F2] ? DKK ! [F3] Sp →

**I would like to ask you a few questions to determine whether you or someone else in your household is eligible to participate in on-going or future studies at the University of Michigan's Survey Research Center. I would like the names (or initials) of the people who usually live here and are 18 years of age or older beginning with you. What is your name?**

**Read as needed: Do not include people who usually live at a different address.**

♦ ENTER First name

Add HH Members	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	59

Q W E R T Y U I O P 1 2 3  
A S D F G H J K L 4 5 6  
Z X C V B N M [X] 7 8 9  
dark [Laptop] space return 0

HHNames.HH\_Names[1].X058AFName 403346 4/13/2015 5:23:46 PM ENG



# UM Touchscreen Screener Prototype (3)

University of Michigan: Touchscreen Screener Prototype

← [F2] ? ! ⚙ Sp →

**And what is your age?**

**If INF cannot or will not provide answer, first probe for the year of birth and subtract that from the current year to find the age.**

**If you still cannot get an answer, ask the INF if the person is 40 or older. If no, enter [997].**

**If yes or if INF cannot or will not say, exit the screener and find a different INF.**

Add HH Members	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	59

1 2 3  
4 5 6  
7 8 9  
0 return

dark

HHNames.HH\_Names[1].X957\_AAage 403346 4/13/2015 5:24:26 PM ENG



# UM Touchscreen Screener Prototype (4)

University of Michigan: Touchscreen Screener Prototype

← [F1] [F2] ? DK ! [F3] Sp →

**I would like to ask you a few questions to determine whether you or someone else in your household is eligible to participate in on-going or future studies at the University of Michigan's Survey Research Center. I would like the names (or initials) of the people who usually live here and are 18 years of age or older beginning with you. What is your name?**

**Read as needed: Do not include people who usually live at a different address.**

♦ ENTER First name

Add HH Members	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	55

Q W E R T Y U I O P 1 2 3  
A S D F G H J K L 4 5 6  
Z X C V B N M ← 7 8 9  
light space return full 0 exit

HHNames.HH\_Names[1].X058AFName 403346 4/13/2015 9:43:54 PM ENG



# UM Touchscreen Screener Prototype (5)

University of Michigan: Touchscreen Screener Prototype

← [F2] ? DKK ! Sp →

**And what is your age?**

If INF cannot or will not provide answer, first probe for the year of birth and subtract that from the current year to find the age.

If you still cannot get an answer, ask the INF if the person is 40 or older. If no, enter [997].

If yes or if INF cannot or will not say, exit the screener and find a different INF.

Add HH Members	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	55

← 1 2 3  
4 5 6  
7 8 9  
0 enter

light exit

HHNames.HH\_Names[1].X957\_AAage 403346 4/13/2015 9:44:09 PM ENG





# UM Touchscreen Screener Prototype (6)

University of Michigan: Touchscreen Screener Prototype

Forms Answer Language Help Screen Layout

**And what is your age?**

If INF cannot or will not provide answer, first probe for the year of birth and subtract that from the current year to find the age.

If you still cannot get an answer, ask the INF if the person is 40 or older. If no, enter [997].

If yes or if INF cannot or will not say, exit the screener and find a different INF.

	Add HH Members	First name	Last name	Age	
HH_Names[1]		FIRST NAME 1	LAST NAME 1	55	
HH_Names[2]	5				
HH_Names[3]					
HH_Names[4]					

HHNames.HH\_Names[1].X957\_AAage 403346 4/13/2015 9:44:39 PM ENG



# UM Touchscreen Screener Prototype (7)

University of Michigan: Touchscreen Screener Prototype

← [F1] [F2] ? DKK ! [F3] Sp →

**I would like to ask you a few questions to determine whether you or someone else in your household is eligible to participate in on-going or future studies at the University of Michigan's Survey Research Center. I would like the names (or initials) of the people who usually live here and are 18 years of age or older beginning with you. What is your name?**

**Read as needed: Do not include people who usually live at a different address.**

♦ ENTER First name

Add HH Members	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	55

Q W E R T Y U I O P 1 2 3  
A S D F G H J K L 4 5 6  
Z X C V B N M ← 7 8 9  
light space return full 0 exit

HHNames.HH\_Names[1].X058AFName 403346 4/13/2015 9:43:54 PM ENG



# UM Touchscreen Screener Prototype (8)

University of Michigan: Touchscreen Screener Prototype

← [F1] [F2] ? ! ⚙ Sp →

**I would like to ask you a few questions to determine whether you or someone else in your household is eligible to participate in on-going or future studies at the University of Michigan's Survey Research Center. I would like the names (or initials) of the people who usually live here and are 18 years of age or older beginning with you. What is your name?**

**Read as needed: Do not include people who usually live at a different address.**

♦ ENTER First name

pers	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	55

Q W E R T Y U I O P ←  
A S D F G H J K L return  
↑ Z X C V B N M . , ↑  
123 light space simple #+=

HHNames.HH\_Names[1].X058AFName 403346 4/13/2015 ENG



# UM Touchscreen Screener Prototype (9)

University of Michigan: Touchscreen Screener Prototype

← [F1] [F2] ? ! ⚙ Sp →

**I would like to ask you a few questions to determine whether you or someone else in your household is eligible to participate in on-going or future studies at the University of Michigan's Survey Research Center. I would like the names (or initials) of the people who usually live here and are 18 years of age or older beginning with you. What is your name?**

**Read as needed: Do not include people who usually live at a different address.**

♦ ENTER First name

pers	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	55

#+=

HHNames.HH\_Names[1].X058AFName 403346 4/13/2015 9:53:21 PM ENG



# UM Touchscreen Screener Prototype (10)

University of Michigan: Touchscreen Screener Prototype

← [F1] [F2] ? ! ⚙ Sp →

**I would like to ask you a few questions to determine whether you or someone else in your household is eligible to participate in on-going or future studies at the University of Michigan's Survey Research Center. I would like the names (or initials) of the people who usually live here and are 18 years of age or older beginning with you. What is your name?**

**Read as needed: Do not include people who usually live at a different address.**

♦ ENTER First name

pers	First name	Last name	Age
	FIRST NAME 1	LAST NAME 1	55

HHNames.HH\_Names[1].X058AFName 403346 4/13/2015 9:53:34 PM ENG



# UM Touchscreen ACASI Prototype

NSFG Male TTS ACASI Touchscreen Prototype (Version: 11)

↑ ↻ ↓

Don't know   Rather not say

In general, how is your health? Would you say it is...

1. Excellent

2. Very good

3. Good

4. Fair

5. Poor

KA\_4

←       →

K\_MAL.ENG\_K.GENHEALT   13888881236   4-13-2015   9:39:32 PM   Version Date: 1/14/2015   Version Time: 2:49PM   Eng



# Outstanding Tasks

- Beta testing over the next few months and refine based on feedback.
- Add undocumented Blaise landscape/portrait auto-rotation layout set feature.
- Finish building out the light keys.
- Incorporate Maniplus dialog box for remarks and open ends.
- Create a sample instrument to distribute to wider audience.
- Evaluate placement of navigation buttons.



# Moving Forward

- Evaluate similar and applicable features, as they exist within Blaise 5 (~some shown by Hugo during Blaise 5 Data Entry API presentation yesterday).
- Will it be (possible and/or) necessary to build a similar onscreen keyboard within the Windows data entry program in Blaise 5?
- Perhaps the iOS or Android Blaise 5 applications will alleviate some of these issues (comes w/an additional cost).
- Will Windows 10 have better built in controls?
- Is it better to help the end user by opening the data entry API or creating the solution for them (i.e. Blaise 4.8 GUI driven panel approach)?



# Summary

- As touch-friendly devices become ubiquitous and proliferate the landscape, we hope many of these extra measures become obsolete.
- Blaise 4.8 menu panel approach represent exciting possibilities for leveraging touchscreen elements moving forward.
- Possibilities seem limited to one's imagination!



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# Thank you!

For more information please contact  
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