Westat®

Improving Lives Through Research®

Design Considerations for Web and CAPI Multimode using Blaise 5

Todd Flannery and David Simpson, Westat

Blaise 5 Instruments

Observations about modes

- Modes like CAWI and CAPI have unique features that require specialized coding, layouts, or behaviors.
- A feature that is required in one mode, like token authentication or text-to-speech may not be available or desired.
- We needed to develop strategies to allow us to handle mode-specific features along with a common text for questions, responses, and errors.

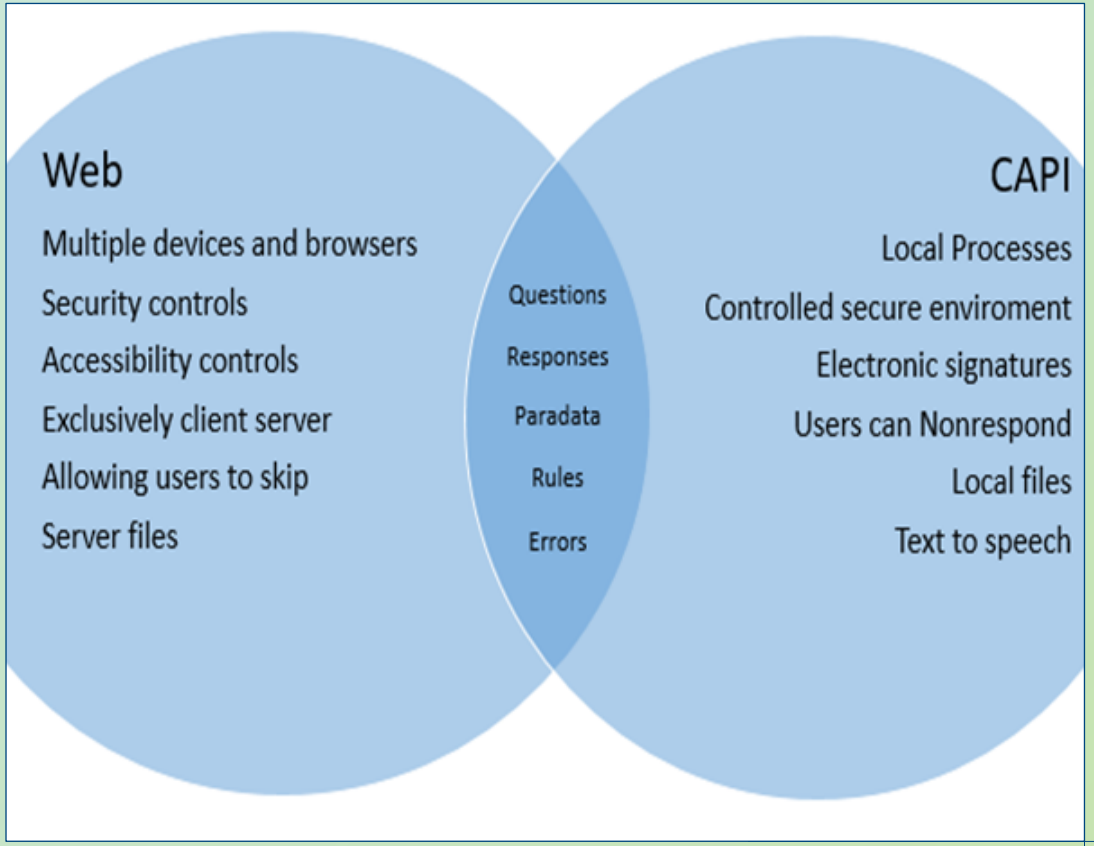
Blaise 5 Instruments

Initial Considerations

- Time is not always on your side, so aligning the data into a single data structure to be used between both web and CAPI may not be doable given the differences.
- Web uses multiple devices and browsers, and the mode requires additional security, different accessibility controls.
- Disconnected CAPI is a controlled environment that can use local actions on the secure machine.

Web Design and CAPI Design Elements

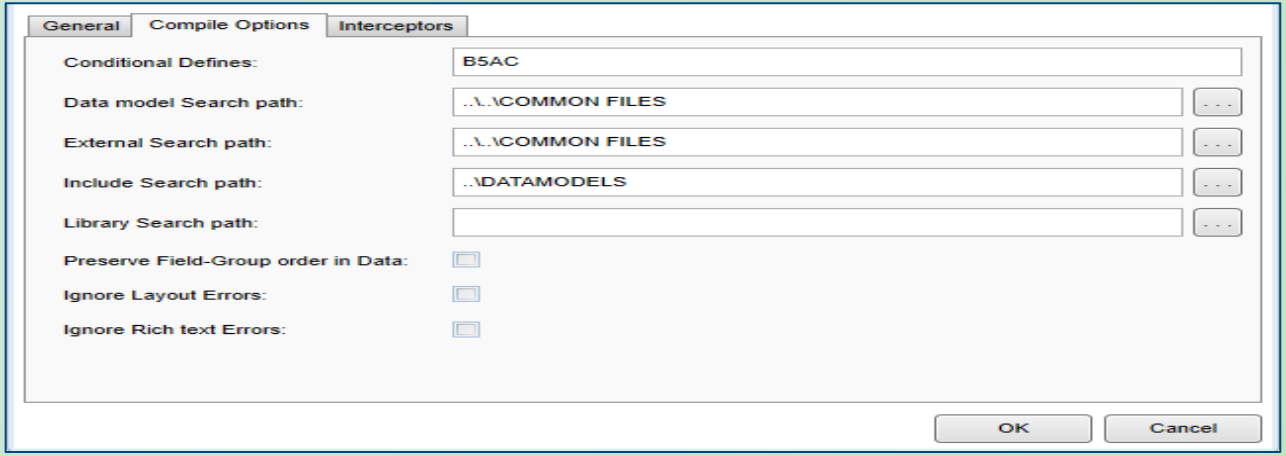
Modes have some shared elements, but each mode also has many unique features



Coding methods

- Defining common features between modes determines where you avoid having to develop specific methods.
- Otherwise Conditional defines using {$IFDEF …} or {$IFNDEF} along with Compile Options allow mode specific behaviors.

Mode based coding in Blaise 5



Edit the Blaise project to define modes, and then use the conditional defines to drive behaviors

```
 R08_TX0025
 ENG
 "^{aPractice} Sometimes you will be asked to answer with a number. ^{aTX0025}
 <br><br>After you answer, select the <B>NEXT</B> button to move to the next screen.
 <br><br>How many times during the past week did you drink soda?"
 SPN
 "^{aPractice} A veces se le pedirá que conteste con un número. ^{aTX0025}
 <br><br>Después de contestar, seleccione el botón <B>SIGUIENTE</B> para pasar a la siguiente pantalla.
 <br><br>¿Cuántas veces tomó gaseosa o soda durante la semana pasada?"
 TEXTLABEL ENG "Number of times" SPN "Cantidad de veces"
{$IFDEF B5AC}
  AppendLabel "Number of times" "Cantidad de veces"
  Watermark "Enter a number" "Anote un número"
{$ENDIF}
```

Blaise 5 Instruments

Mode-specific coding

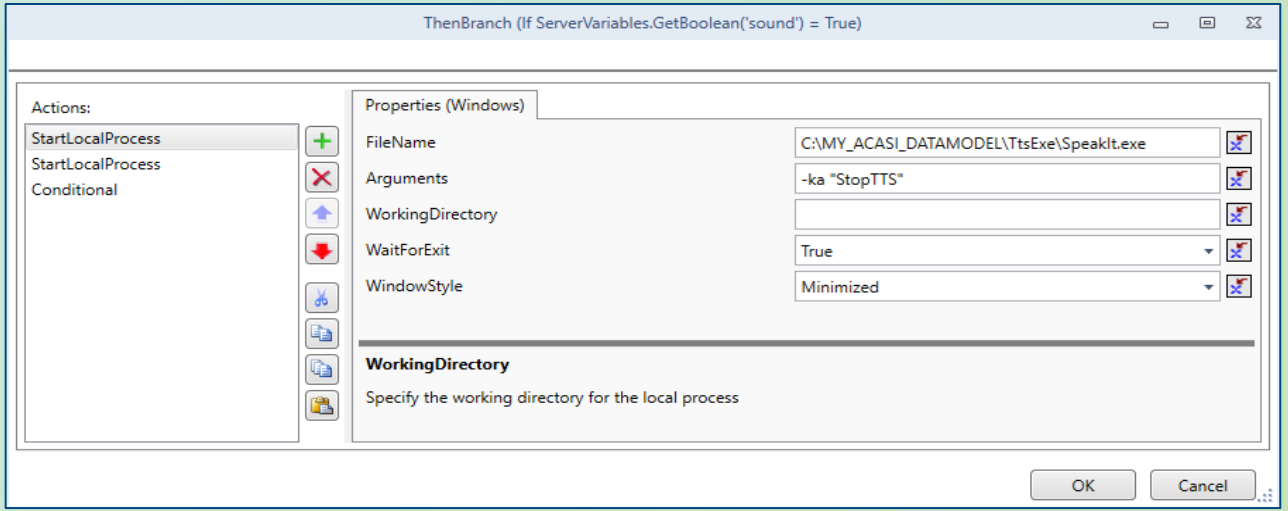
- Web specific methods
  1. Security
  2. Accessibility controls
- CAPI specific methods
  1. Actions setups
  2. StartLocalProcess

Blaise 5 Instruments

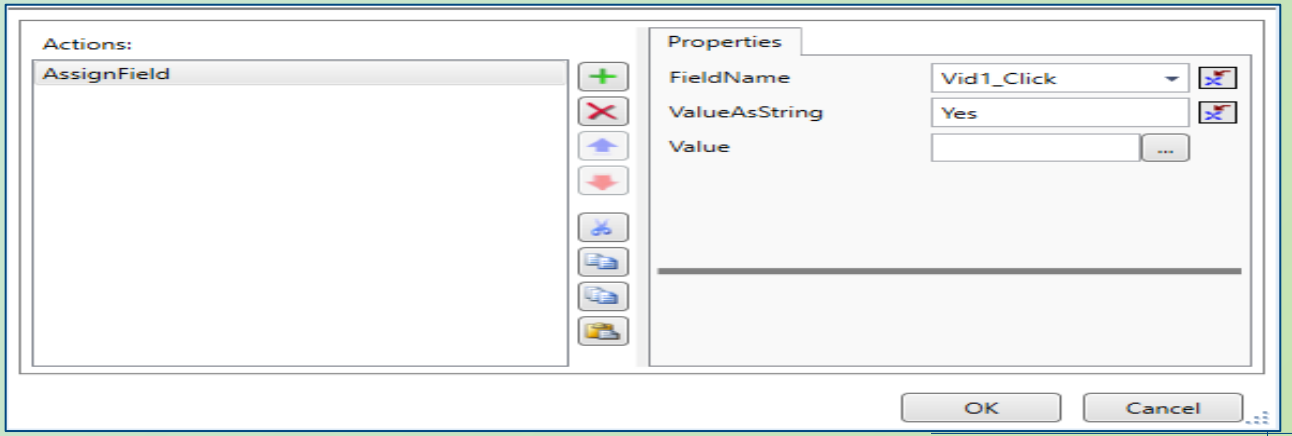
Common coding among both modes

- Keeping the texts common among modes
- Expressions in the events editor
- Use of server variables to set values for expressions

Mode based coding in Blaise 5



Some examples of using actions like StartlocalProcess or expressions to collect behaviors



Multimode development using conditional defines

Some results and limitations

- Successful in maintaining single code base for text questions and responses.
- Easy to deploy updates in the field or web.
- Conditional directives are not easy to debug.
- No single database, so synchronization is not automatic.

Multimode development using conditional defines

Where to go from here

- Specify how controls are best used.
- Aligning the data.
- Enhanced tools.
- Greater consistency between modes.

Multimode development using conditional defines

Conclusions

- Design and development for multimode instrumentation requires significant planning.
- Aligning the data is an ultimate goal.
- The tools have been effective in designing a system to collect high quality data for a complex study.

Thank you

For more information contact:

Todd Flannery, Sr. Systems Analyst

ToddFlannery@westat.com

David Simpson , Sr. Systems Analyst

DavidSimpson@westat.com

westat.com

Photos are for illustrative purposes only. All persons depicted, unless otherwise stated, are models.