

Capturing Signatures Electronically from a Blaise Instrument

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Introduction

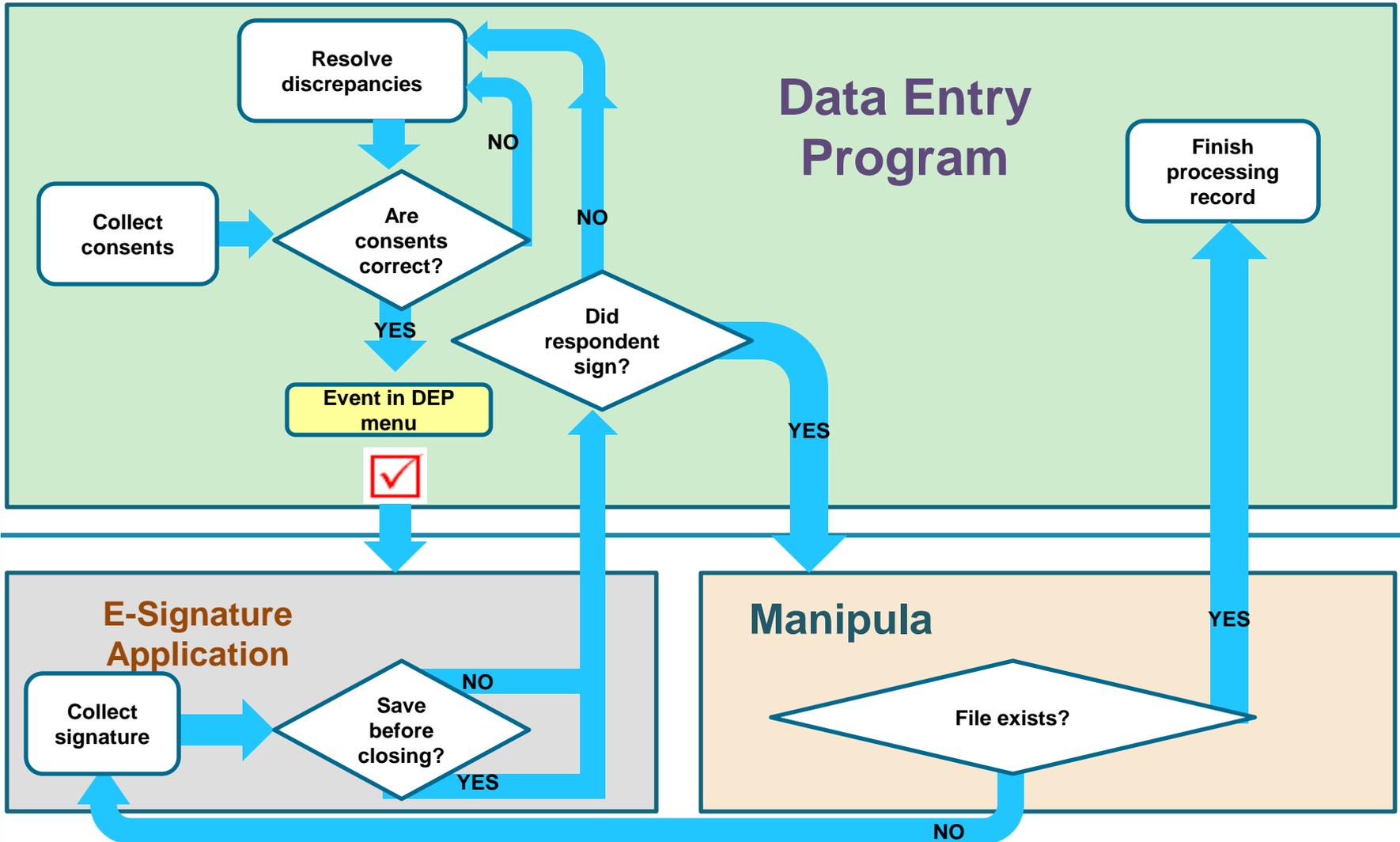
- For A Large Household Survey (ALHS) Westat interviewed several sample groups residing at the same address including adults, youths and parents.
- Each interview required a signed consent or assent form and led to an incentive and signed receipt at the completion of the instrument. Consenting adults provided specimens and received a second incentive. Depending on the household composition up to 5 or more forms were required in a household and some households had more than one participant in each sample group.
- Paper management required of the field interviewer and the paper tracking required of the home office was excessive and error prone.
- The implementation of an electronic signature approach integrated with the data collection software, Blaise, solved these issues.

The Electronic Signature Form

- .NET console application written using the C# language to collect signatures.
- Called via the DEP from a menu button.
- Presents the passed Blaise data as selected check boxes.
- Respondent can accept the selections and sign electronically, or go back to the DEP to make changes before being asked to sign again.
- The e-signature is collected in a textbox control using the Windows.Ink DLL.
- If the respondent signs, we use a PictureBox control to store a GIF file of the signed document in an encrypted location.

The screenshot shows a web-based consent form titled "CONSENT". At the top, there are buttons for "English" and "Spanish". Below this, a instruction reads "Please scroll down to the bottom to view the consent form:". The main content area contains several bullet points: "The ALHS Study will use my sample(s) for a variety of tests.", "I will not get results back from the tests done on my sample(s).", "What the risks and benefits are if I give sample(s).", "I can ask more questions at any time.", and "I'll get a copy of this consent form." Below these is a section "I agree to give:" with three rows of options: "A saliva sample." (Yes checked, No unchecked), "A skin cell sample." (Yes unchecked, No checked), and "I agree to the use of my samples for genetic research." (Yes checked, No unchecked). A paragraph follows: "By signing this form, you agree to give a saliva sample now and in the future. You have the right to stop giving samples at any time and may refuse to participate in this or any future sample collections." Another paragraph states: "I have read the information about giving samples or someone has read it to me. I have had a chance to discuss it and to ask questions. I will receive a copy of this permission form." On the right side of the form, a vertical scroll bar is present with a label "Please click the scroll bar to scroll to the bottom". At the bottom of the form, there are two signature fields. The first field contains a handwritten signature "AR" and a date "08/09/2016", with a red "X" icon to the right. Below this is the label "Signature of Participant" and "Month/Day/Year". The second field contains a printed name "ALHS RESPONDENT" and a date "08/09/2016", with a red "X" icon to the right. Below this is the label "Printed Name of Participant" and "Month/Day/Year". At the very bottom, there are three buttons: "Clear All Signatures", "Save and Close", and "Close w/o Saving".

Processing Electronic Signatures



Demonstration of the E-Signature Form

Answer Options Help

Consent Skin Cells Saliva Shipment

PLEASE CONFIRM THAT THESE CONSENTS ARE CORRECT:

- SALIVA SAMPLE
- SKIN CELL SAMPLE
- USE OF SAMPLES FOR GENETIC RESEARCH

1. CONSENTS ARE CORRECT
 2. CONSENTS NEED TO BE EDITED

BCT05 1 CONSENTS_ARE_

CONSENT

English Spanish

Please scroll down to the bottom to view the consent form:

- The ALHS Study will use my sample(s) for a variety of tests.
- I will not get results back from the tests done on my sample(s).
- What the risks and benefits are if I give sample(s).
- I can ask more questions at any time.
- I'll get a copy of this consent form.

I agree to give:

A saliva sample. Yes No

A skin cell sample. Yes No

I agree to the use of my samples for genetic research. Yes No

By signing this form, you agree to give a saliva sample now and in the future. You have the right to stop giving samples at any time and may refuse to participate in this or any future sample collections.

I have read the information about giving samples or someone has read it to me. I have had a chance to discuss it and to ask questions. I will receive a copy of this permission form.

 08/09/2016
Signature of Participant Month/Day/Year

ALHS RESPONDENT
Printed Name of Participant

 08/09/2016
Signature of Person Obtaining Consent Month/Day/Year

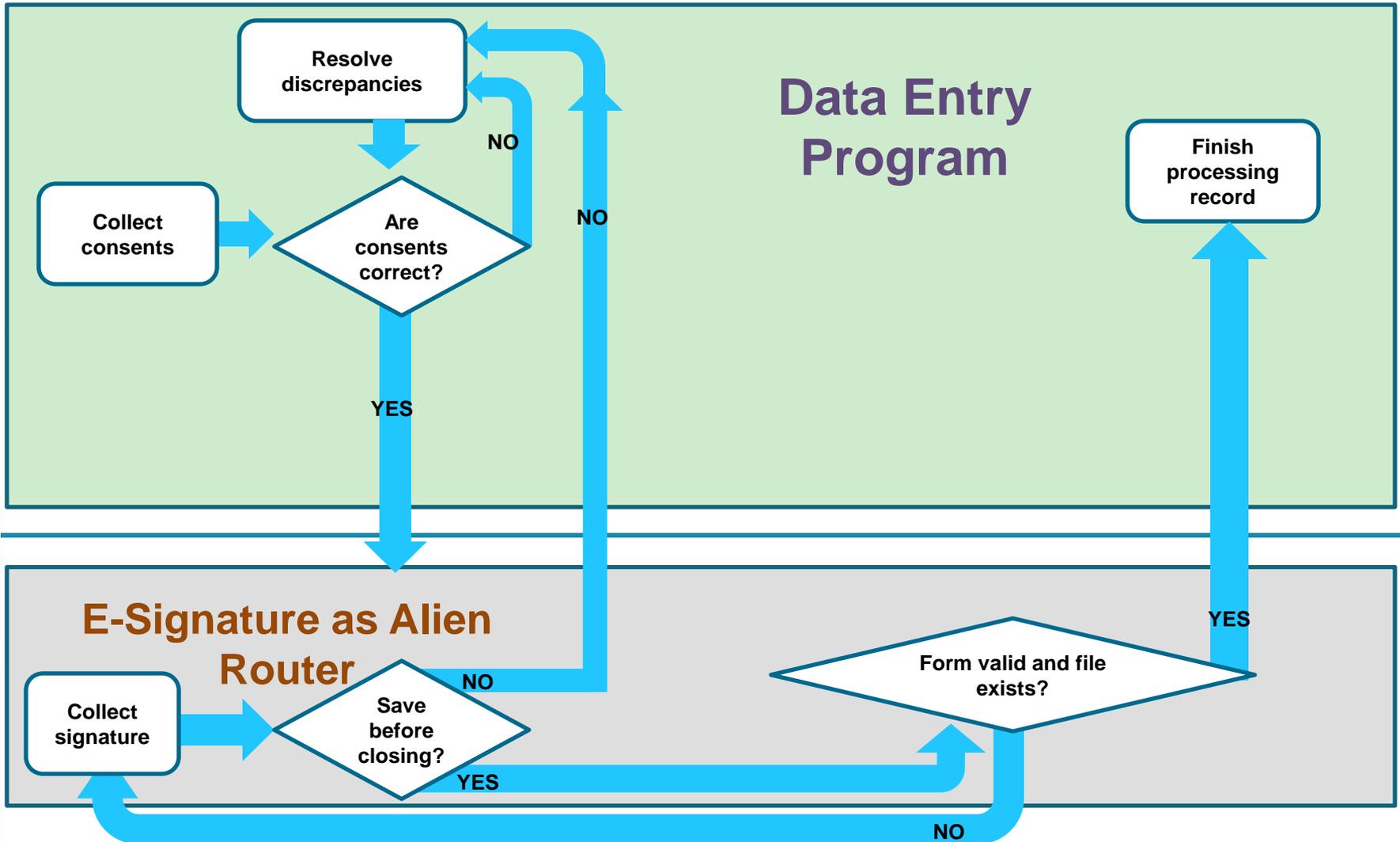
Clear All Signatures Save and Close Close w/o Saving

Please click the scroll bar to scroll to the bottom

Using Alien Routers

- We can simplify our processing by allowing the application to interact with the active record in Blaise.
- One way to accomplish this is by creating the process as a DLL and then using a call to an alien router to bring up the form.
- In returning values from the form to DEP, we can eliminate the need to involve the interviewer in determining the result.

Electronic Signatures as Alien Router



E-signatures and Blaise 5

- Blaise 5 requires that the application be defined as a service on the local machine.
- In our original approach, we sought to create a procedure that calls the service as an ALIEN, but this is complicated due to the session potentially timing out. Another approach proposed by SN would require a customized build of the data entry program where a customized event is triggered when the interviewer indicates an e-signature is required.
- We could then validate the parameters passed to the form within the .NET code rather than using Maniplus for this purpose.

Conclusions

- The use of the electronic signature has proven extremely effective in our household survey.
- The process mitigates user error; allows our home office processing staff quick access to the electronic documentation; and has proven to be effective and reliable in a complex data collection. There has been a significant reduction in paper management with the security risks and other problems associated with paper data collections

Conclusions

- Blaise 4.8 features have provided Westat with several efficient approaches to coordinate the DEP with the extended capabilities allowed via .NET applications and processing.
- As we transform our processing to utilize Blaise 5 capabilities, we feel that enhanced platform will further advance our efficiency in processing this key data.