

PAPI to Blaise 5 - Challenges and Solutions in Creating Complex Tables

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- Background
- Our Task
- Challenges and Solutions
 - Large Tables with Preload Data
 - Handling Comments and Remarks
 - Collecting Data in Tables with Undefined Columns
- Conclusions



Blaise Use at RTI International

- RTI and Blaise go way back
- Primarily use version 4.8
- Continued evaluation and integration with Blaise 5, plus:
 - 4 web surveys in production
 - 2 projects in development for October 2020 deployment

Demo Survey

- Mimics instrument programmed for client
- Uses Blaise version 5.6.9.2082

Convert PAPI surveys to Blaise 5 on tablets

- Old paper forms contained:
 - large tables, supplemental sheets
 - previously collected data



Blaise 5 instrument should include:

- Previous data when available
 - retained and readily available to interviewers
 - reference or verify, modifiable in some cases
- Comment fields for previous data changes
- Remarks feature
- Account for X services for Y household members

Challenge – Large Tables with Preload Data

Requirements:

Previous data when available

- ***retained and readily available to interviewers***
- ***reference or verify, modifiable in some cases***

▪ How to show everything needed in large tables, considering:

- Screen width
- Visibility
- Preload data



▪ Different options considered and tested:

- X** Read-only preload table above or below
- X** Preload data in odd-numbered rows
- X** Table tags within field level text

Solution – Large Tables with Preload Data

- ✓ Combine preload data, new capture, potential changes
- Seems obvious... but was tricky based on client requirements for preload behavior
- Needed to implement special coding
 - PreloadIn field
 - LoadHH procedure
- Original table load:

```
PreloadIn.KEEP
IF PreloadIn <> 1 THEN
  //fill preload data
  LoadHH(piRow,PreloadStr)
ENDIF
```

Solution – Large Tables with Preload Data, cont.

Correct?	P#	First name	Last name	Date of Birth	Age	Sex	Rel to O/R	Language	Education	Identity	Country	Race
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1	ANNE	DOE	7/25/1967	52	Female	Head of Hous	Only English	Professional c	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2	MARIE	DOE	1/22/1970	50	Female	Other Relativ	Not Applicabl	Bachelors deg	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3	CATRINE	DOE	12/20/1993	26	Female	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4	ALEX	DOE	8/1/1997	22	Male	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White

Original view, read only fields

Correct?	P#	First name	Last name	Date of Birth	Age	Sex	Rel to O/R	Language	Education	Identity	Country	Race
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1	ANNE	DOE	7/25/1967	52	Female	Head of Hous	Only English	Professional c	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2	MARIE	DOE	1/22/1970	50	Female	Other Relativ	Not Applicabl	Bachelors deg	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3	CATRINE	DOE	12/20/1993	26	Female	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4	ALEX	DOE	8/1/1997	22	Male	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White

All rows confirmed correct, still read only

Correct?	P#	First name	Last name	Date of Birth	Age	Sex	Rel to O/R	Language	Education	Identity	Country	Race
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1	ANNE	DOE	7/25/1967	52	Female	Head of Hous	Only English	Professional c	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2	MARY	DOE	1/22/1968	52	Female	Other Relativ	Spanish and	Bachelors deg	Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3	CATRINE	DOE	12/20/1993	26	Female	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4	ALEX	DOE	8/1/1997	22	Male	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	OtherAsian

Some rows marked as incorrect, set PreloadIn := 1 and open most row cells for modification

Solution – Large Tables with Preload Data, cont.

What about client requirement for previous data to be retained and readily available?

When Correct <> No, we could invoke code to return data to its original preload state in case interviewer needed to revert.

Correct?	P#	First name	Last name	Date of Birth	Age	Sex	Rel to O/R	Language	Education	Identity	Country	Race
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1	ANNE	DOE	7/25/1967	52	Female	Head of Hous	Only English	Professional c	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2	MARY	DOE	1/22/1968	52	Female	Other Relativ	Spanish and	Bachelors deg	Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3	CATRINE	DOE	12/20/1993	26	Female	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4	ALEX	DOE	8/1/1997	22	Male	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	OtherAsian



Correct?	P#	First name	Last name	Date of Birth	Age	Sex	Rel to O/R	Language	Education	Identity	Country	Race
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1	ANNE	DOE	7/25/1967	52	Female	Head of Hous	Only English	Professional c	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2	MARIE	DOE	1/22/1970	50	Female	Other Relativ	Not Applicabl	Bachelors deg	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3	CATRINE	DOE	12/20/1993	26	Female	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	White
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4	ALEX	DOE	8/1/1997	22	Male	Son or Daugh	Not Applicabl	No schooling	Non-Hispanic	Select	OtherAsian

Solution – Large Tables with Preload Data, cont.

- Achieved by using the PreloadIn flag again, with the use of the LoadHH procedure.

```
Correct
...[some other code]
PreloadIn := 0
LoadHH(piRow,PreloadStr)
iPerson.show
First.show
Last.show
DOB.show
...etc
```

- Caveat: Loss of any newly changed data (deemed okay by project team)

Challenge – Handling Comments and Remarks

Requirements:

Comment fields for previous data changes

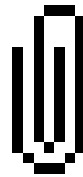
Remarks feature

- Comment capture easy for most preload changes
- Not so easy with large tables

X Add comments column to right side of tables

- Remarks feature

X Did not work out of the box



Solution – Handling Comments and Remarks

1. Verify complete address (including county) on questionnaire:

Address	<input type="text" value="55 BOGUS RD"/>
City	<input type="text" value="SOMEWHERE"/>
State	<input type="text" value="NC"/>
Zip	<input type="text" value="12345"/>
County	<input type="text" value="TESTCOUNTY"/>
Phone	<input type="text" value="(999) 999-9999"/>

Original view, preloaded address information displayed

1. Verify complete address (including county) on questionnaire:

Address	<input type="text" value="559 BOGUS RD"/>
Address Comments	<input type="text" value="change occurred, so leave a comment"/>
City	<input type="text" value="SOMEWHERE"/>
State	<input type="text" value="NC"/>
Zip	<input type="text" value="12345"/>
County	<input type="text" value="TESTCOUNTY"/>
Phone	<input type="text" value="(999) 999-9999"/>

Address is changed, comments row appears to collect further information

Solution – Handling Comments and Remarks, cont.

- ✓ For comments, route one very large field below the table
 - Space was too valuable
 - Improvement from PAPI comments
 - QxxChanges auxfield used to route required comments field

<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="text" value="4"/>	<input type="text" value="ALEX"/>	<input type="text" value="DOE"/>	<input type="text" value="8/1/1997"/>	<input type="text" value="22"/>	<input type="text" value="Male"/>	<input type="text" value="Son or Daught"/>
<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="text" value="5"/>	<input type="text" value="CHRISTII"/>	<input type="text" value="DOE"/>	<input type="text" value="6/6/2000"/>	<input type="text" value="19"/>	<input type="text" value="Female"/>	<input type="text" value="Long Term Vi"/>

Comments:

Forced to enter comments when Correct = No.

Solution – Handling Comments and Remarks, cont.

- ✓ For remarks, update Resource Database and change shortcut
 - New shortcut: Ctrl+C
 - Resource Database updates...
 - “OnCtrlC” event included in Horizontal, Vertical, InfoPane, Appointment field pan templates
 - Logic added to remarkButton/clip Visibility property:

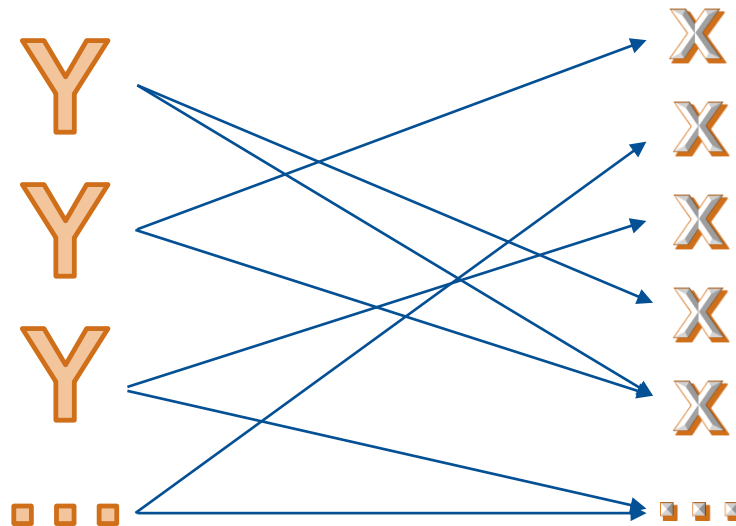
```
IF LEN(Field.FieldProperties.GetProperty('Remark').StringValue) > 0 THEN
    'Visible'
ELSE
    'Hidden'
ENDIF
```

Challenge - Collecting Data in Tables with Undefined Columns

Requirement:

Account for X services for Y household members

- Any number of services
- Any number of household members: preload + new
- PAPI method: list names, write services per name



Solution – Collecting Data in Tables with Undefined Columns

✓ Reverse order and use OptionButtons table

- Collect all services first

Considering last year's Christmas shopping, from which stores did you and your family purchase presents?

(READ THE COMPLETE LIST AND SELECT THOSE THAT APPLY):

- Belk
- Dillard's
- Macy*s
- Saks Fifth Avenue
- Sears
- Nordstrom
- JCPenney
- H&M
- Gap
- American Eagle
- Express
- Don't know
- Refused

Were any other stores or websites used to buy presents that we have not already discussed?

Don't know

Refused

Please enter up to 8 additional store names most frequently used for purchasing Christmas presents last year.

Store Name	Any More?	
Finish Line	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Lululemon	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Pandora	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Sephora	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Best Buy	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Amason.com	<input type="button" value="Yes"/>	<input type="button" value="No"/>

Solution – Collecting Data in Tables with Undefined Columns, cont.

What stores were used to buy presents for each family members?

	Belk	Saks Fifth Avenue	Nordstrom	H&M	Gap	American Eagle	Express	Finish Line	Lululemon	Pandora	Sephora	Best Buy	Amazon.com
SUSAN (40)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HERBERT (42)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
JENNIFER (15)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TREVOR (13)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JASON (5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MARGRET (62)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JEAN (32)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MIKE (34)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ANITA (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

FillNameAge : ARRAY[1..20] OF STRING[40] {Family member Name and Age}


FillStore : ARRAY[1..20] OF STRING[30] {Name of selected or added Store}

FIELDS //Family Members and Stores

D1 "[^]{FillNameAge[1]}/"[^]{FillNameAge[1]}" : SET OF tStores, NODK, NORF, EMPTY

D2 "[^]{FillNameAge[2]}/"[^]{FillNameAge[2]}" : SET OF tStores, NODK, NORF, EMPTY

...etc.



```
tStores = (  
  _1 (1) "^{FillStore[1]}",  
  _2 (2) "^{FillStore[2]}",  
  _3 (3) "^{FillStore[3]}",  
  _4 (4) "^{FillStore[4]}",  
  _5 (5) "^{FillStore[5]}",
```


Solution – Collecting Data in Tables with Undefined Columns, cont.

- Update made to Category Column Header template

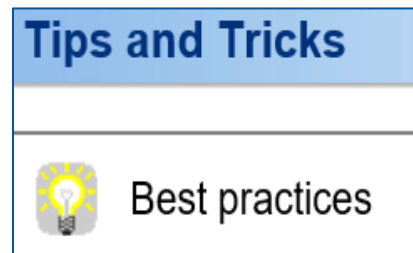
The screenshot displays a software interface for editing a template. At the top, there is a 'Template' tab. Below it, the 'Name' field is set to 'Text' and the 'Description' field is set to 'Category Column Header'. The main area is divided into three sections:

- Left Panel:** A tree view showing the template structure. It includes 'Category Column Header Template' and a sub-item 'Cell 0,0' with the text 'categoryText'.
- Center Panel:** A dark grid representing the table structure.
- Right Panel:** A 'Properties' window for the 'Category Column Header Template'. It contains two fields: 'ApplicabilityCondition' (empty) and 'ApplyAtRuntime' (set to 'LEN(Category.Te...').

Below the main editor, there is a separate window titled 'ApplyAtRuntime: Boolean' containing the expression `LEN(Category.Text) > 0`. To the right of this window is a 'Constructs' panel with a dropdown menu showing 'IF...THEN...ELSE...ENDIF' and a plus sign button.

Conclusions

- Large tables can be used and generally work well, but need extensive testing and tweaking
- Be careful with changing/adding/dropping fields in a table after layout is applied
- Having a solid company Resource Database is key
- Online “Tips and Tricks” comes in handy



More Information

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