



# Using the Blaise Alien Router For Audio-Recording of In-Person Interviews

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# Audio Recording for In-Person Surveys

Why?

- To monitor performance of field staff
- To monitor effectiveness of survey questions

How?

- Selected points during the interview
- Turn on/off the Windows Sound Recorder

***Computer Audio-Recorded Interviewing (CARI)***



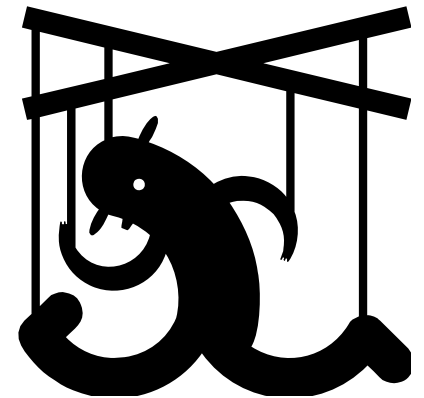
# Flexibility and Control

## Recording choices:

- By item – one or several questions in a file
- By module – one or several modules in a file
- By timer – specified number of seconds

## Specification:

- In-code – pre-defined, rigid
- External file – changeable, flexible

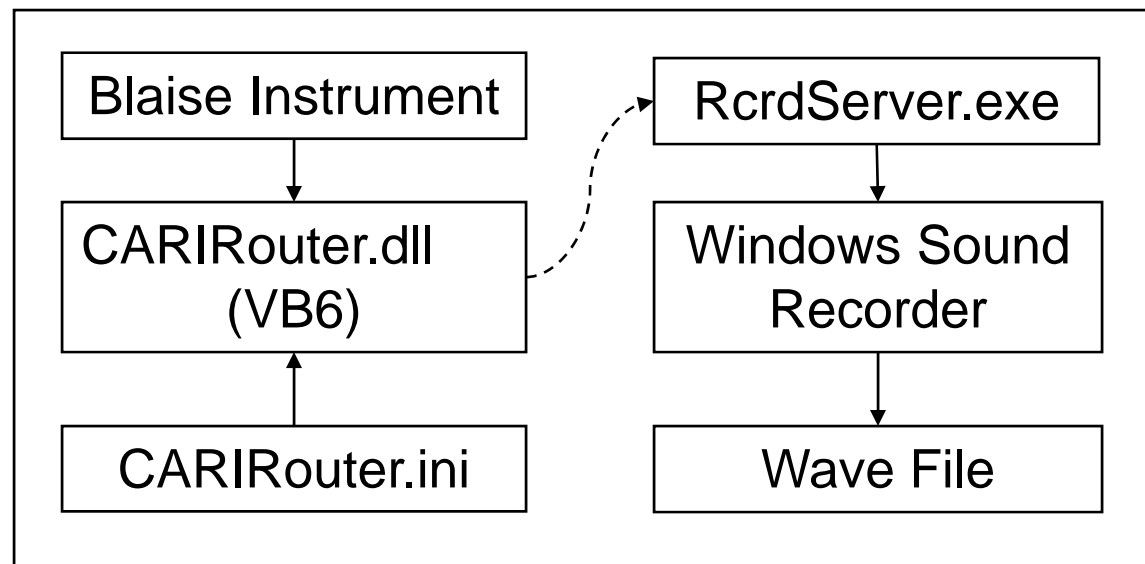


# Programming Choices

Need: To integrate operation Windows software for recording sound with Blaise instrument logic

Methods:

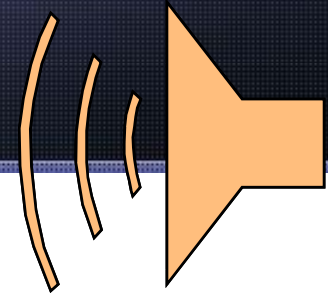
- Alien procedure
- Alien router



# Computer Audio-Recorded Interviewing (CARI) As Implemented at RTI

- CARI alien router (CARIRouter.dll)
- RcrdServer.exe – a standalone executable that starts and stops recording by communicating with the Windows Sound Recorder.
- Blaise instrument – with block-level activation of the alien router
- CARIRouter.ini – an external text file that lists the items to be recorded

# Programming Goals



- Successfully start and stop the sound recorder
- Successfully create audio files with the specified contents
- No indication that recording was starting or stopping.
- Easy programming
- Provide a flexible method for CARI item selection

# CARIRouter.ini

## [Options]

RecordEntireSurvey = No

OverwriteWavfiles = No

## [Items]

ItemCount=4

Item1=Q5, CONTINUE, 20

Item2=Q12, START

Item3=Q13, STOP

Item4=DEMOG.Q22[3],  
CONTINUE, 30

- ✓ Option to record everything
- ✓ Option to have unique filenames (time-stamped)
- ✓ Option to record by time
- ✓ Option to designate start and stopping points
- ✓ Accepts fully qualified field names

# Example: Alien Router Logic, Part I

If consentflag Then

Set Layout =  
DB.Screens.LayoutSetCollection  
(DS.LayoutSetIndex)

Set Parallel =  
Layout.ParallelCollection  
(DS.ParallelIndex)

Set Page =  
Parallel.StoredPageCollection  
(DS.StoredPageIndex)

Set Quest =  
Page.QuestionCollection  
(DS.QuestionIndex)

QID = Quest.Field.Name

- ✓ Consent is required
- ✓ Navigating the Dep State's Namespace
  - ✓ Layout
  - ✓ Parallel Block
  - ✓ Page
  - ✓ Question
  - ✓ Field Name
  - ✓ Question ID

# Example: Alien Router Logic, Part II

```
If DS.AlienRouterStatus =  
  blrsPreEdit Then
```

```
  If bRecordEntireSurvey  
  Then
```

```
    If Not CARIShared  
    Then
```

```
      StartCARI CaseID,  
        QID, trig.Timer
```

```
    End If...End If ...End If
```

- ✓ Router runs before and after each item
- ✓ Check recording options which were specified in CARIRouter.ini
- ✓ Keep track of the status of the recording software
- ✓ Start the recorder if appropriate, passing info for file name and timing

# Example: Alien Router Logic, Part III

## Private Function

```
StartCARI(CaseID As String,  
QID As String, Optional Timer  
As Integer = 0) As Long
```

```
Dim s As String
```

```
If bOverwriteWavfiles Then
```

```
    mStrSndFileName = CaseID &  
    QID
```

```
Else
```

```
    mStrSndFileName = CaseID &  
    QID & Format(Now(),  
    mmddyyyyhhnnss")
```

```
End If
```

- ✓ Parameters: information for naming the sound file
- ✓ Optional timing parameter
- ✓ If the interviewer backs up and goes forward, will the same filename be used? (overwrite option)
- ✓ If not, add a timestamp to the name, to keep names unique.

# Example: Alien Router Logic, Part IV

```
frmRcrdClient.SendRequest  
    "1," & Timer & "," &  
    mStrSndFileName  
  
mbCARIShared = True  
  
If Timer > 0 Then  
    CurrentTimer = Timer  
    StartTime = Now()  
End If  
    ...  
  
End Function
```

- ✓ Send the request to start the Windows Sound Recorder
- ✓ Keep track of the recorder's status
- ✓ Start a timer for sending the "off" signal, if needed

# Example: Associating the Alien Router With a Blaise Block

BLOCK Bperson

PARAMETERS

{define parameters here...}

ROUTER *RouteRules* ALIEN  
(*CARIRouter.CARIRecorder*,  
*ManageCARI*)

FIELDS

{define Fields here...}

RULES

{define logic here..}

ENDBLOCK

- ✓ This block will allow recording, but it may or may not have any depending on the contents of *CARIRouter.ini*
- ✓ Use the ROUTER statement with the name of the dll (*CARIRouter*), and the names of the dll's callable functions
- ✓ Other parts of the block are standard Blaise code

# Example: Calling a Blaise Block With an Alien Router

## FIELDS

```
CARIConsent : tyesno  
HHroster : array[1..3] of Bperson  
{more fields go here ....}  
Q2 "Has consent been given?":  
  bconsent
```

## RULES

```
{more rules go here...}  
CARIConsent.keep  
Q2  
  For I := 1 to 3 do  
    HHroster[I].RouteRules  
  enddo  
{more rules go here...}
```

```
ENDMODEL
```

- ✓ Keep track of consent, separate from the question
- ✓ Bperson has the router association
- ✓ Consent is collected with Q2 and also in a parallel block, to allow the respondents to change their minds.
  
- ✓ Use “RouteRules” to activate the alien router

# Summary

## Benefits of using an alien router for CARI

- Reading an external specification file at execution time
- Communication with Windows Sound Recorder
- Simple instrument modifications for adding CARI capability to a questionnaire
- Reusable router code – no change from one instrument to the next (as long as the name of CARIConsent is constant)

# Thank you for listening!

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