Implementing Computer-Audio Recorded Interviewing (CARI) Using Blaise 4.8.2

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Outline

- Introduction
- CARI Requirements
- Blaise 4.8.2 CARI Settings
- CARI Testing Considerations
- CARI Systems Testing Results
- Conclusion

Integrate with Legacy Systems

Sponsors Expect Heavy Lifting

CARI Without Constraints

CARI Requirements

Simplify where possible
Make some compromises
A few requirements help
Recognize limitations
Teamwork is a must
Ask if you don't understand
Steal from the best
Save the good work

CARI Requirements

A. General Criteria

- Create Sound and Image Files
- Quality recordings
- CARI Transparent to the interviewer
- Bounding questions (questions around the target question)
- Sampling
- Irregular navigation
- Multi-person households
- Work for CATI and CAPI

CARI Requirements

B. Specific Requirements

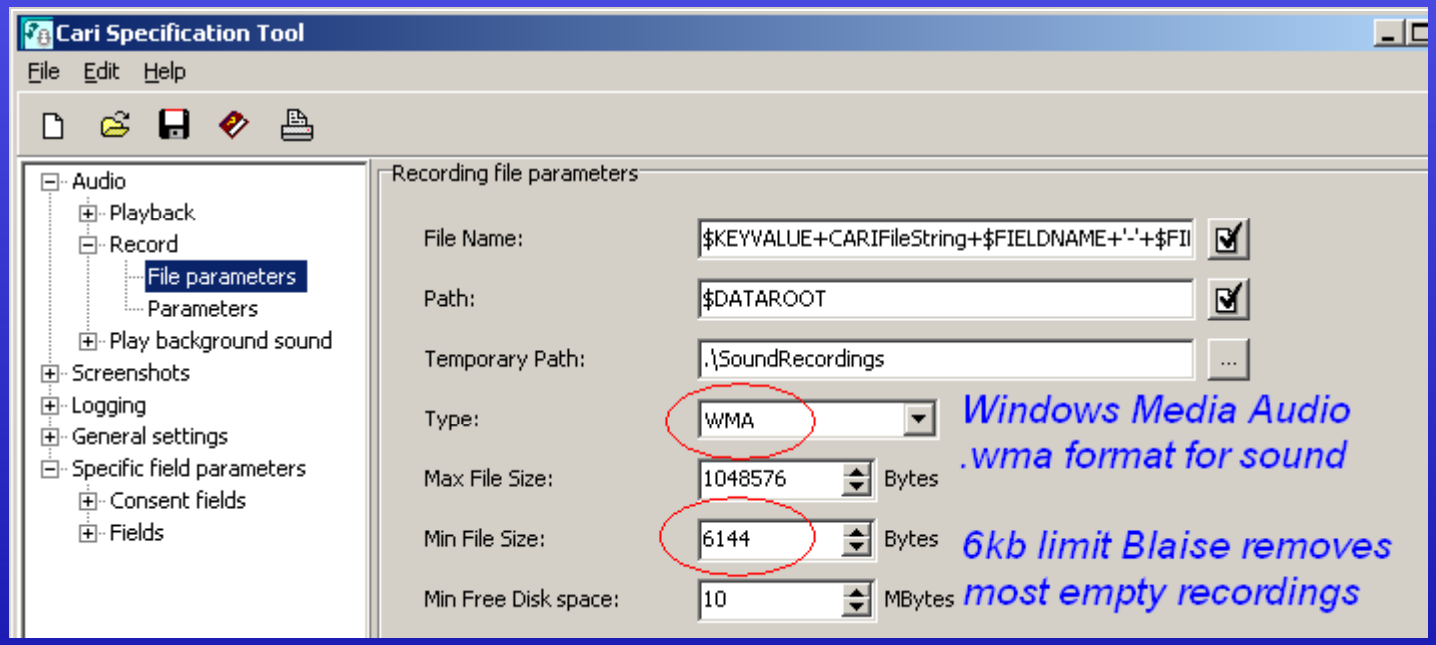
- Record up to 238 unique questions
- Only record the first 5 people in roster
- Use a CARI Sample flag to control CARI recordings
- Build in a system “emergency exit” that stops CARI
- Stop recordings after 60 seconds
- Consent should only be recorded if the respondent agreed to be recorded.
- If the respondent changes, then “automatically” re-ask the consent question

CARI Challenges

- How do we implement CARI consent?
- What should the max recording length be?
- How do CARI files impact transmissions?
- How big will these files be?
- What settings do we need to use?
- What information do the back-end systems need?
- Concurrent with instrument development

CARI Settings – Using the BCI

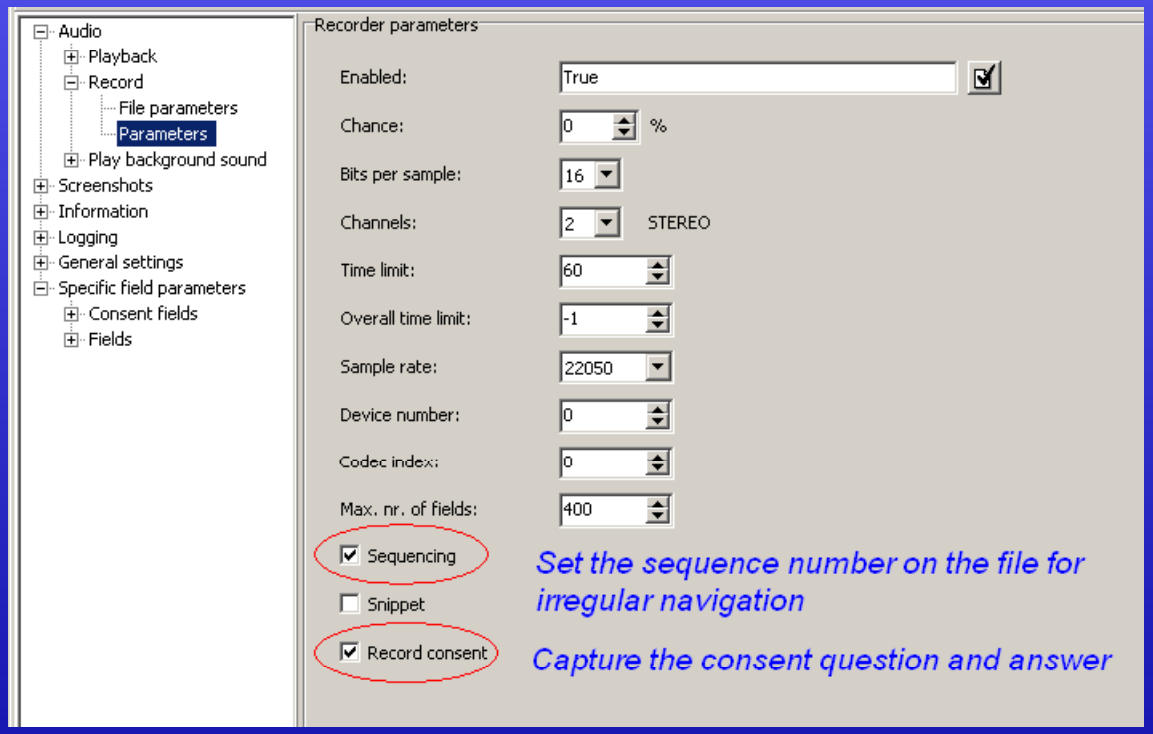
Audio | Record | File parameters

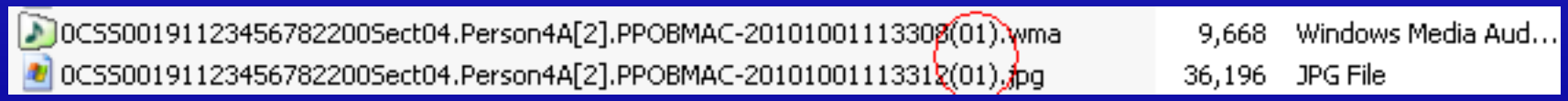


File Name:
$KEYVALUE+CARIFileString+$FIELDNAME+'-'+$FILEDATE+$FILETIME

CARI Settings

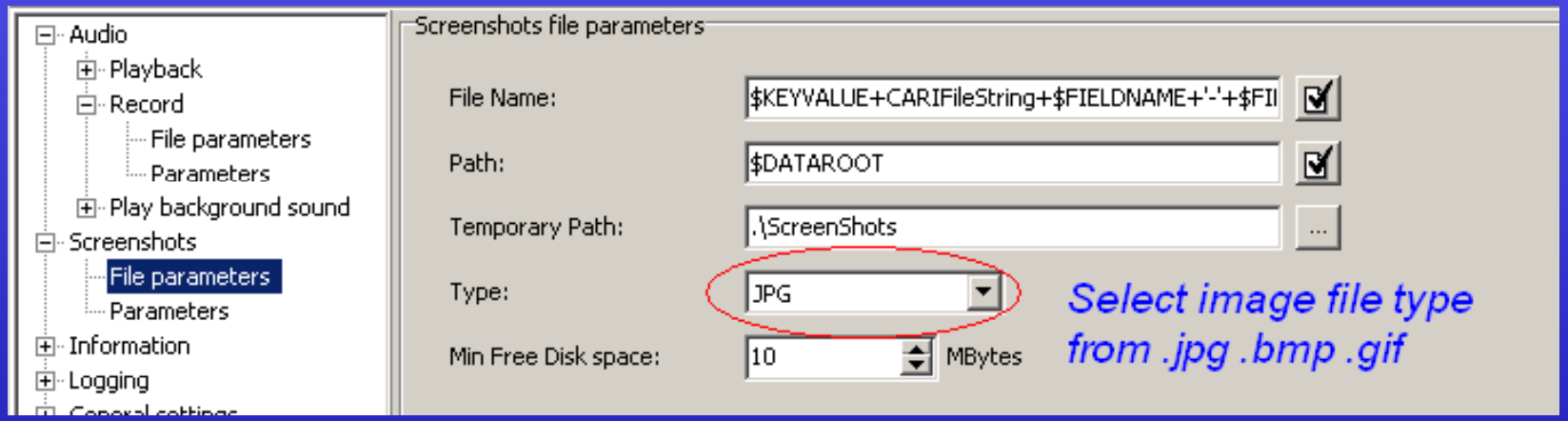
Audio | Record | Parameters





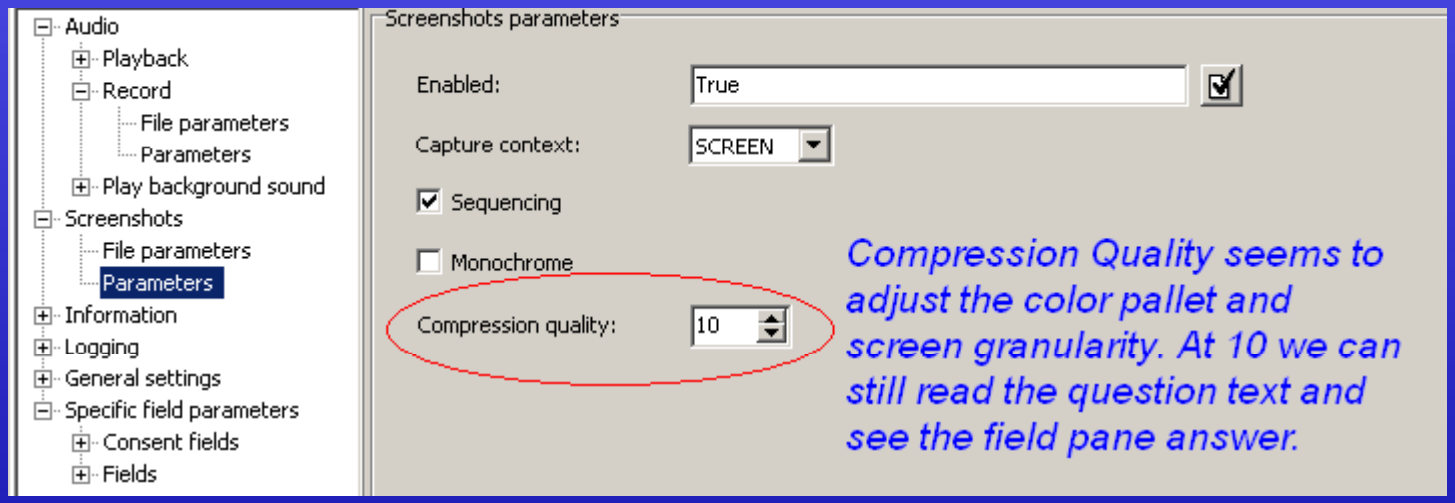
CARI Settings

Screenshots | File parameters



CARI Settings

Screenshots | Parameters



CARI Settings

Specific field parameters | Consent fields

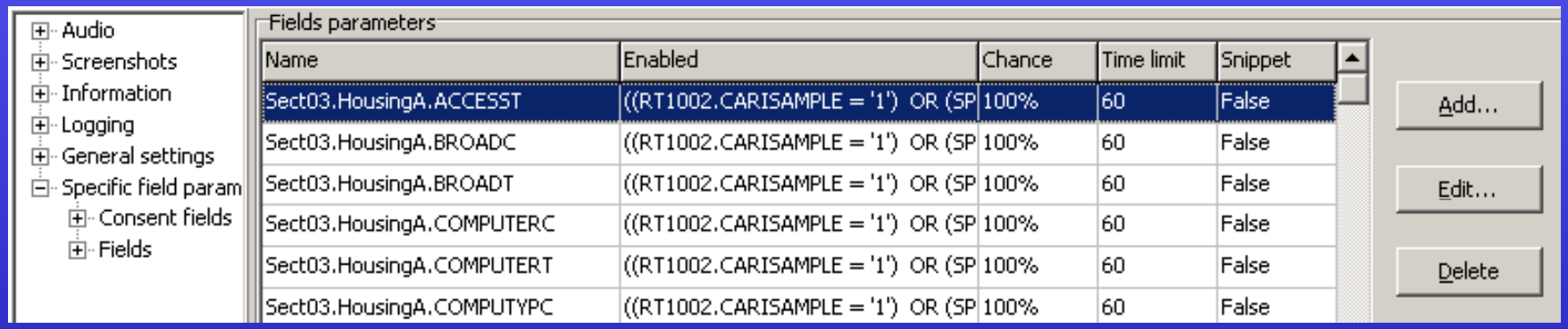
- Specific field parameters
  - Consent fields
  - Fields

Consent fields parameters

Name	Consent	Time limit	Record
Front.CARICON1	CARICON_FLAG = 1	60	True
Recorder.CARICON2	CARICON_FLAG = 1	60	True
WebCATIFront.CARICON1	CARICON_FLAG = 1	60	True

CARI Settings

Specific field parameters | Fields



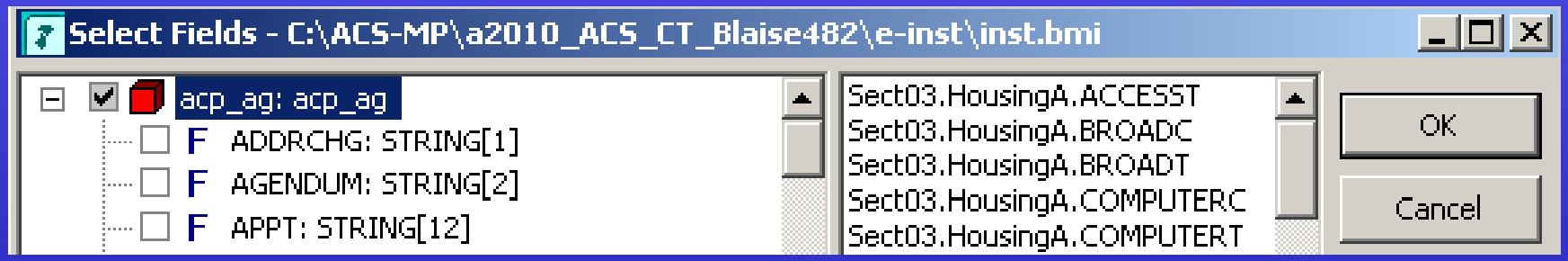
Name	Enabled	Chance	Time limit	Snippet
Sect03.HousingA.ACCESST	((RT1002.CARISAMPLE = '1') OR (SP	100%	60	False
Sect03.HousingA.BROADC	((RT1002.CARISAMPLE = '1') OR (SP	100%	60	False
Sect03.HousingA.BROADT	((RT1002.CARISAMPLE = '1') OR (SP	100%	60	False
Sect03.HousingA.COMPUTERC	((RT1002.CARISAMPLE = '1') OR (SP	100%	60	False
Sect03.HousingA.COMPUTERT	((RT1002.CARISAMPLE = '1') OR (SP	100%	60	False
Sect03.HousingA.COMPUTYPC	((RT1002.CARISAMPLE = '1') OR (SP	100%	60	False

CARI fields are easy to manage using the Specification tool.

Cool Tools – BlCariSpec.exe

CARI Settings

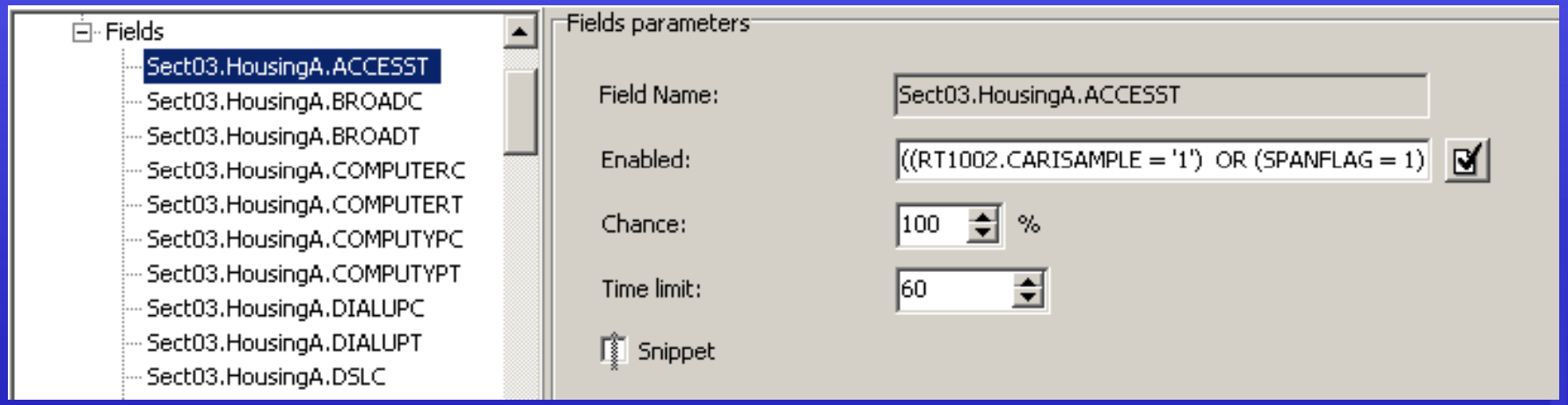
Specific field parameters | Fields | Add



Select fields to add from the existing .bmi

CARI Settings

Specific field parameters | Fields | Edit



Fields may be edited easily for testing, research & development or debugging.

CARI Testing Considerations

- Verify that the instrument is:
  - Creating sound and image files when you expect
  - Creating pairs of sound/image files
  - Creating sound/image files for all potential CARI fields
  - Not creating any unexpected sound/image files
- Verify that your BCI file settings are working
- ** Verify that Consent is working as expected
- Conduct Testing in pairs – talking out loud
- Review sound/image file naming
- Review quality of Sound/Image files

Consent Considerations

- Consent asked in multiple places
- What if respondent changes his/her mind?
  - Added a parallel tab
  - CARICON_Flag=1

Consent fields parameters

Name	Consent	Time limit	Record
Front.CARICON1	CARICON_FLAG = 1	60	True
Recorder.CARICON2	CARICON_FLAG = 1	60	True
WebCATIFront.CARICON1	CARICON_FLAG = 1	60	True

- What if interview changes respondents?
  - “Force” Re-ask of Consent

Testing Results

We Broke WebCATI

They weren't happy with us

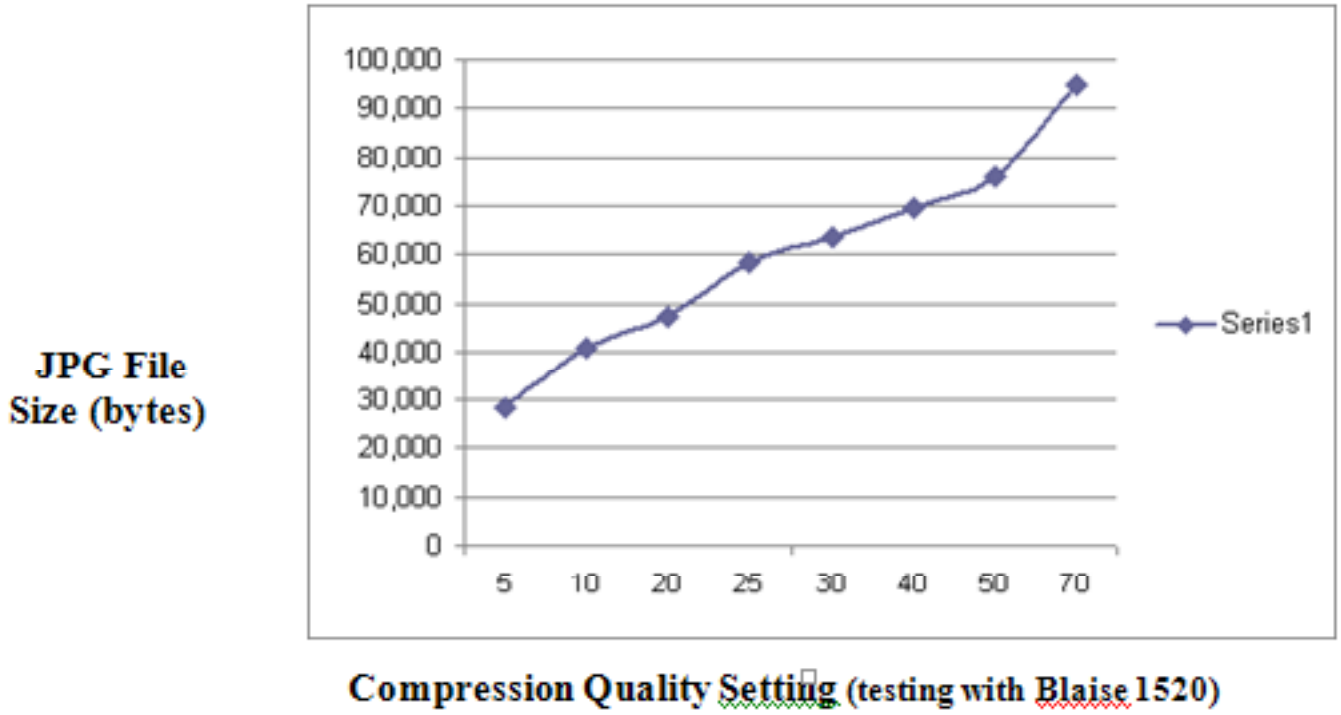
Testing Results – Sound Files

WMA Files	CAPI	CATI	Findings
Median Size of Files	10kb	14kb	CATI about 40% Larger
Size of 60 Second Recordings	40kb	68kb	CATI about 60% larger
WMA files per megabyte	92	68	Fairly large number of recordings per Meg
* WMA files were about 12 times smaller than MP3 files			
* WMA file compression varies. Ours ranged around 30-45%, better than MP3 file compression			

Testing Results – Image Files

JPG Files (10% Compression)	CAPI	CATI	Findings
Median Size of Files	38kb	30kb	CAPI about 30% larger
Size of Smallest JPG Size of Largest JPG	32kb 52kb	27kb 40kb	Image file sizes don't vary as much as sound
JPG files per megabyte	26	35	**Image files average 2 to 3 times the size of sound files
* Regular JPG files were very large – Many over 100kb			
* GIF files caused significant instrument lag (2-6 seconds)			

Blaise JPG Compression Quality



Conclusion

- Implementing CARI with Blaise 4.8.2 is relatively simple once you've identified ideal sound and image settings
- CARI can produce LOTS of sound & image files.
- BlCariSpec.exe is an excellent tool
- Consent is important and can be a little challenging
- Instrument testing should be modified accordingly
- *We wish to thank Statistics Netherlands for adding CARI into Blaise!!

QUESTIONS?

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