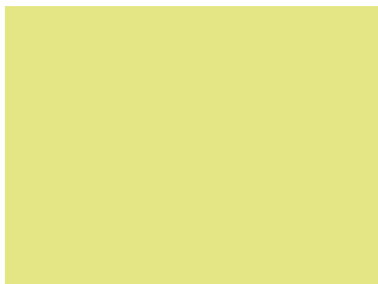
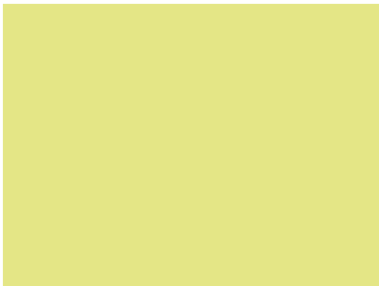




Post Field Work Blues:

Utilizing R to Sift Through Data Collected
in the Field

Prepared for the 2017 FedCASIC Conference
Suitland, MD



Brandi Lea, Ph.D.
Kristin Brooks, Ph.D.
Jessica Guillory

Exploratory qualitative research improves survey design*

Provides quick feedback for new program initiatives

Grounded Theory used for FEMA Public Assistance Disaster applicant interviews

20+ interviews conducted in Georgia, January 2017

Data collected drove decision making & new survey design



Exploratory Research

*Adolph, A., Hall, W., & P. K., 2011; Shields, P., & Rangarajan, N., 2013; Yin, R. K., 2014

01

Download RQDA Package

- R package for Qualitative Data Analysis (RQDA)
- Analyze interviews/transcripts through R
- Multi-user functionality for coding

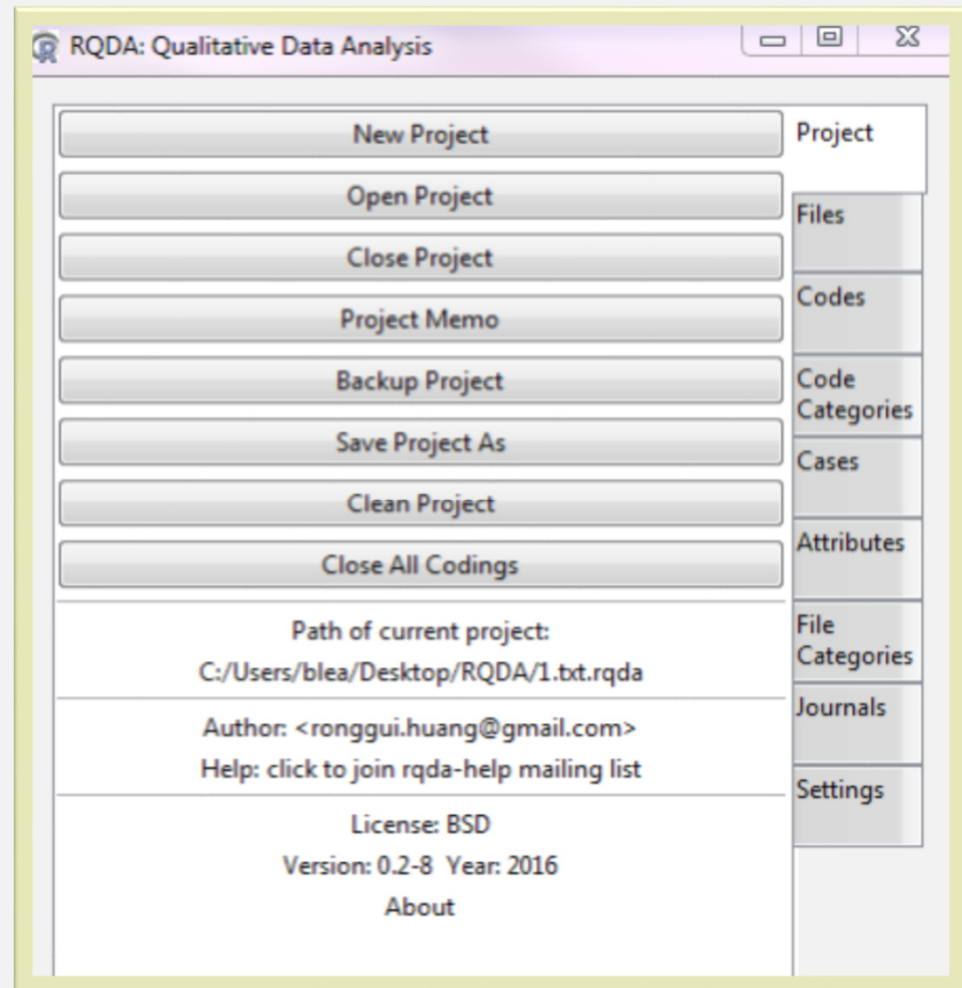
May need to download:

- GTK
- RSQLite
- SQLite Manager

02

Upload Your Data

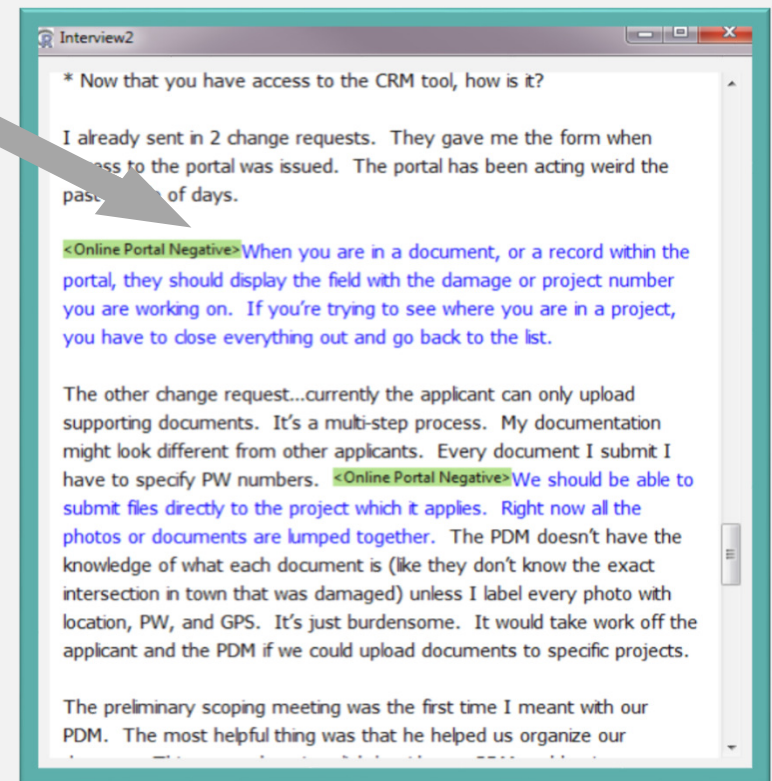
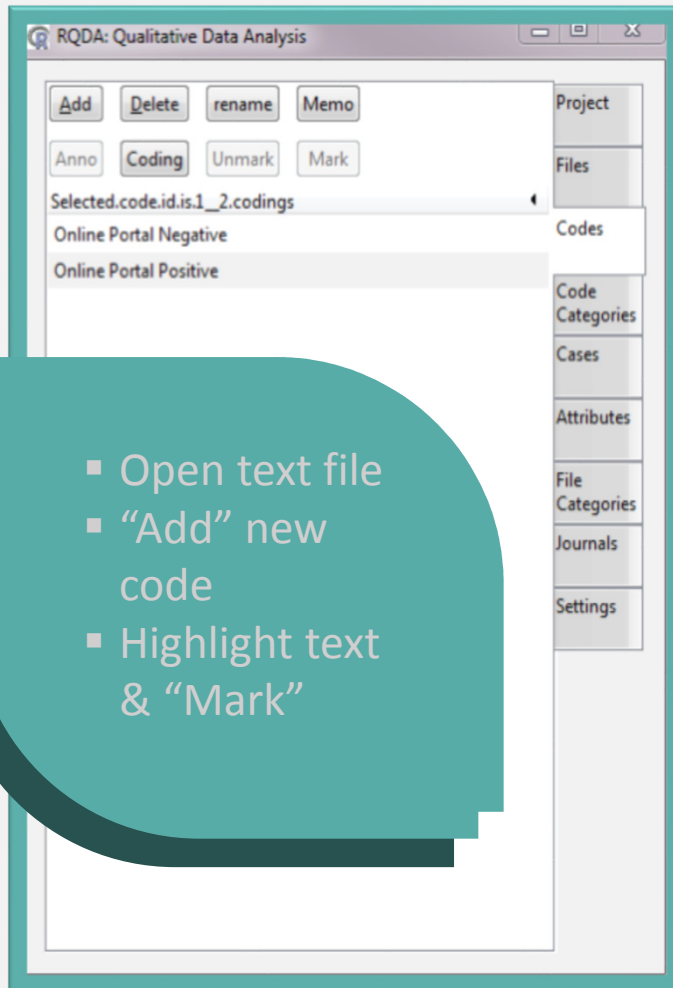
- Start “New Project”
- Load data in Plain Text
or
- Type directly into RQDA



03

Code Your Data

- Open text file
- “Add” new code
- Highlight text & “Mark”



03

Code Your Data

[Online Portal Negative](#)
[Online Portal Positive](#)

3 Codings of "Online Portal Negative" from 2 files.

interview2 [7397:7650]

When you are in a document, or a record within the portal, they should display the field with the damage or project number you are working on. If you're trying to see where you are in a project, you have to close everything out and go back to the list.

[back](#)

interview2 [7885:8022]

We should be able to submit files directly to the project which it applies. Right now all the photos or documents are lumped together.

[back](#)

interview3 [5204:5453]

He told us about the portal, but all our documents were small, so he said it was fine if we emailed him directly. I also liked emailing him directly because he would acknowledge he got my email and I would feel better. I would have a read receipt.

[back](#)

2 Codings of "Online Portal Positive" from 2 files.

interview1 [3254:3512]

We haven't explored it too much, but I do like I can see all the projects, you can upload and scan documentation, I don't have to worry about stuff getting lost anymore, and you can see exactly where you are in the process. The transparency is really good.

[back](#)

interview4 [3706:3900]

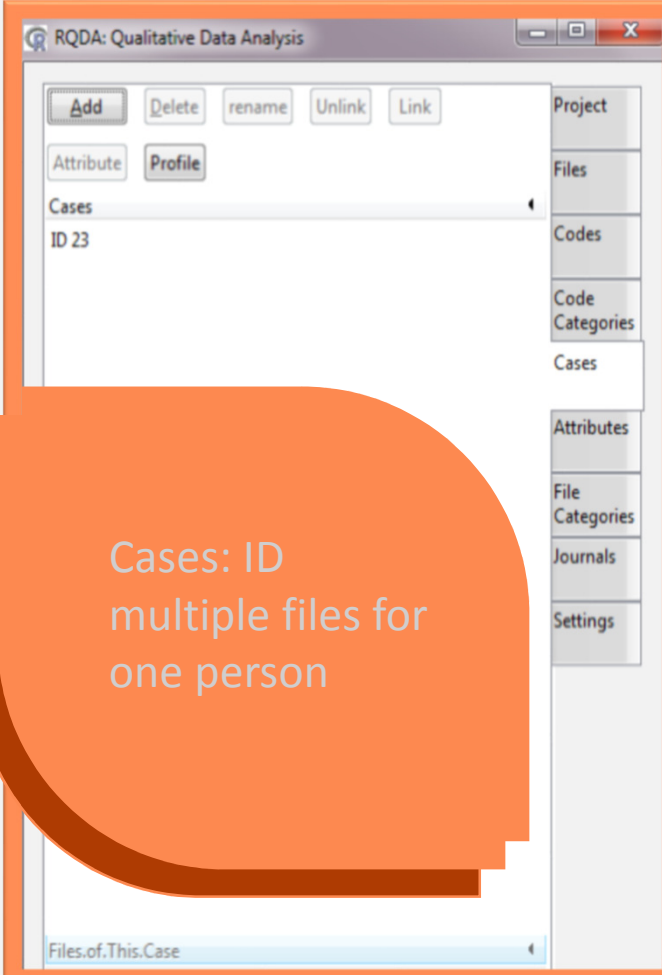
It did seem straightforward. I just kind of tinkered with it. I didn't notice the "show me more" option at first until the rep showed me. But overall I thought it was pretty straightforward.

[back](#)

Virtual code
book: Web link
provided by
RQDA

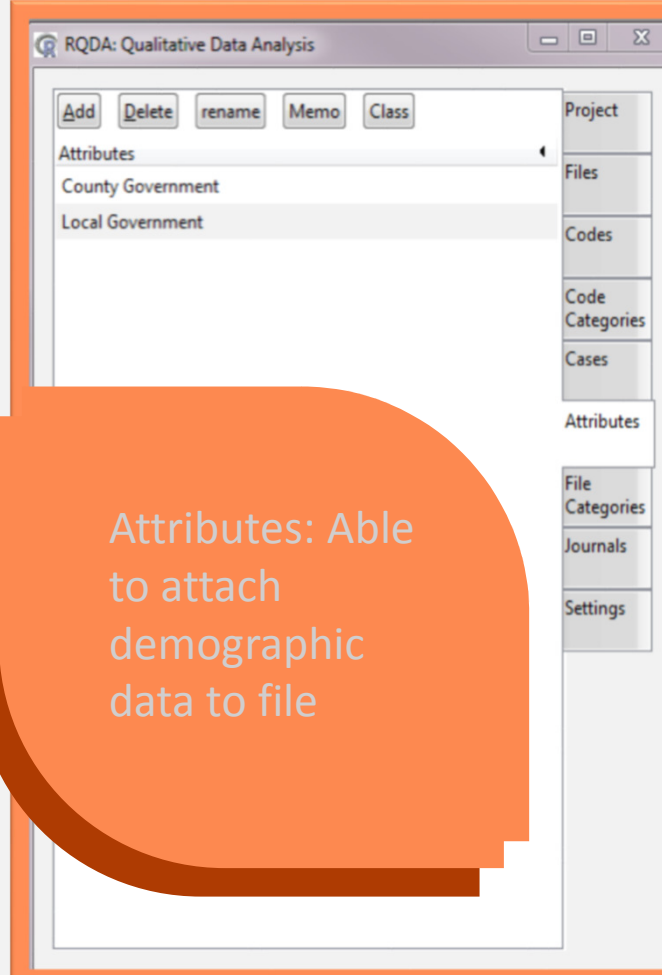
04

Panel Options



The screenshot shows the RQDA: Qualitative Data Analysis window. The 'Cases' panel is selected, displaying a list with one entry: 'ID 23'. Above the list are buttons for 'Add', 'Delete', 'rename', 'Unlink', and 'Link'. To the left of the list are buttons for 'Attribute' and 'Profile'. A vertical sidebar on the right contains menu items: Project, Files, Codes, Code Categories, Cases, Attributes, File Categories, Journals, and Settings. The 'Cases' item is highlighted. At the bottom, a 'Files.of.This.Case' list is visible.

Cases: ID
multiple files for
one person

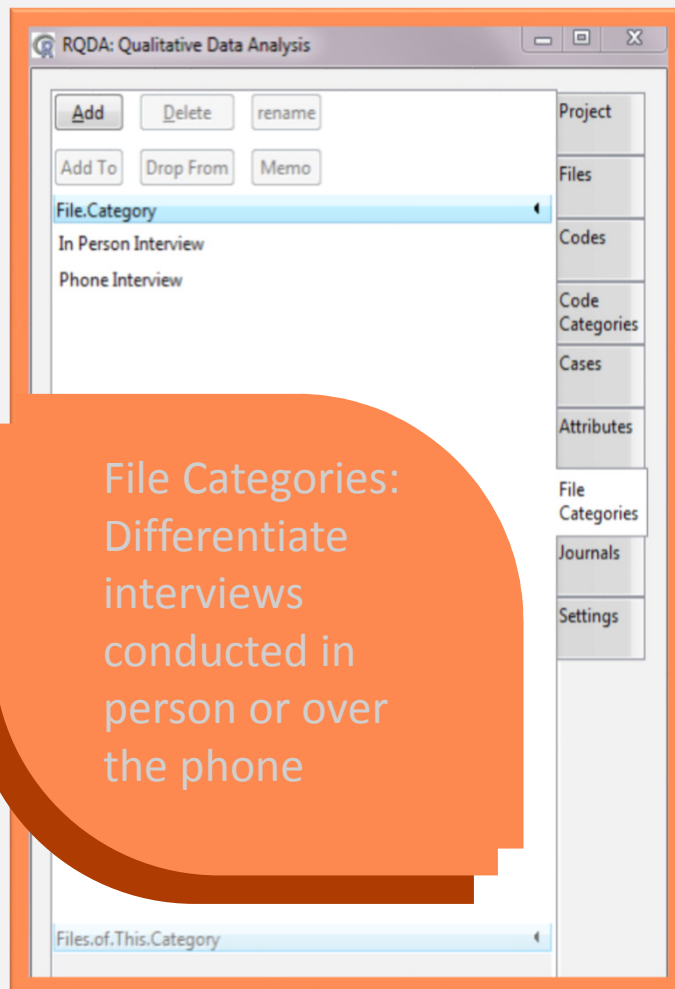


The screenshot shows the RQDA: Qualitative Data Analysis window. The 'Attributes' panel is selected, displaying a list with two entries: 'County Government' and 'Local Government'. Above the list are buttons for 'Add', 'Delete', 'rename', 'Memo', and 'Class'. A vertical sidebar on the right contains menu items: Project, Files, Codes, Code Categories, Cases, Attributes, File Categories, Journals, and Settings. The 'Attributes' item is highlighted.

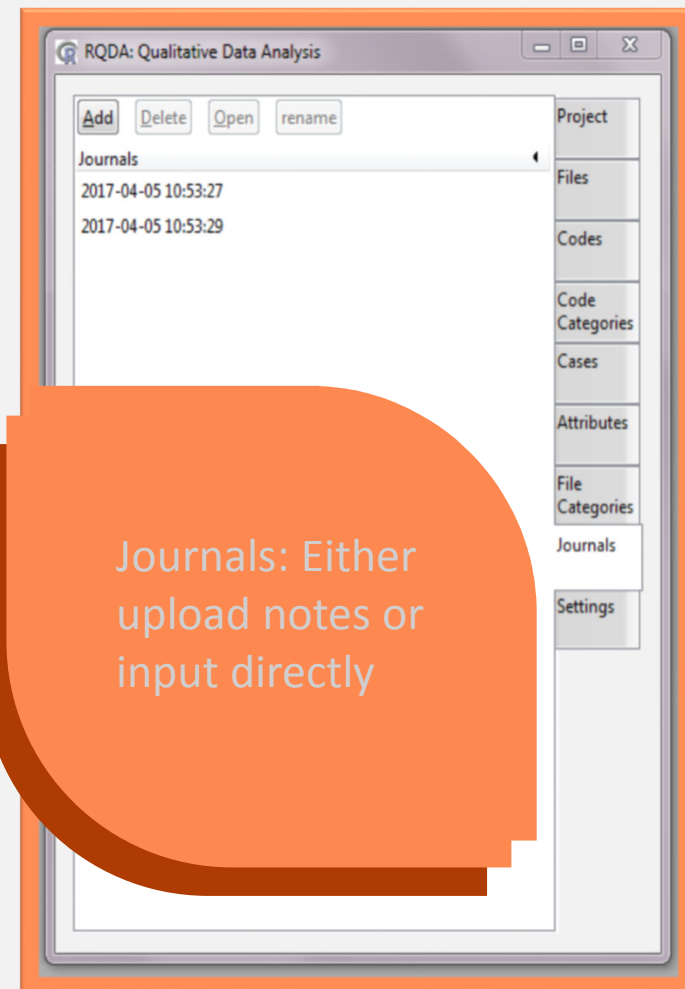
Attributes: Able
to attach
demographic
data to file

04

Panel Options



File Categories:
Differentiate
interviews
conducted in
person or over
the phone

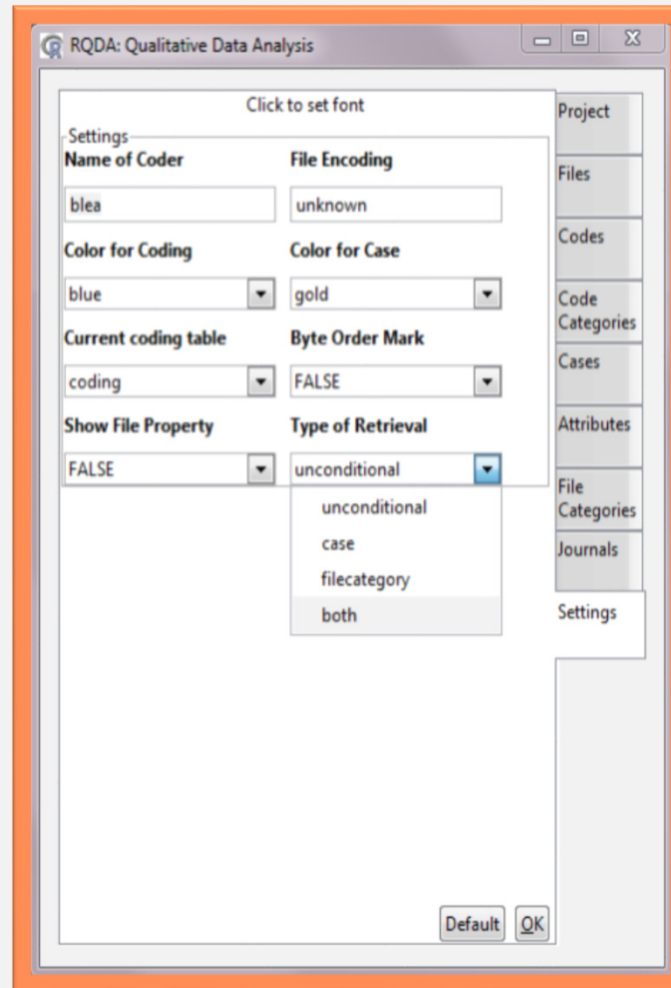


Journals: Either
upload notes or
input directly

04

Panel Options

Settings: Change coder attributes & determine values to retrieve in cases



```
> summaryCodings()  
-----  
Number of codings for each code.  
  
Online Portal Negative Online Portal Positive  
                        3                        2  
-----  
Average number of characters associated with each code.  
  
Online Portal Negative Online Portal Positive  
                        213                       226  
-----  
Number of files associated with each code.  
  
Online Portal Negative Online Portal Positive  
                        2                        2  
> |
```

Produces summary code outputs

Provides counts of files for each code

Average number of characters within each code

05

R Outputs

Sociogram of code categories

Plots across all codes

Can edit & export output



Conclusions



Save money with
R: Opposed to
ATLAS.ti, Nvivo,
etc.



Improve rigor:
System & inter
coder reliability



Code faster:
Provide results in
timely manner



Questions?

Contact: Brandi.Lea@fema.dhs.gov