

- Integrating Qualtrics and behavioral experiments scripts
- I am going to talk specifically about MATLAB, but this is all relevant and actually easier for folks using Psychopy

What is Qualtrics?

- Powerful survey tool that we have free access to at Duke.

How much do you want to eat each of the following foods right now?

| | I really do not want to eat this food right now. | I do not want to eat this food right now. | I do not know. | I want to eat this food right now. | I really want to eat this food right now. |
|--|---|--|-----------------------|--|--|
|  Apple | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Pros/Cons of Using Qualtrics

- Pros:
 - Very easy to create a variety of survey questions
 - Adaptive and attractive user interface
- Cons:
 - Data is in Qualtrics (not in our MATLAB files)
 - Cannot integrate data into the rest of our experiment

- Surveys that are easy to interact with lessen the burden on the subject and are more likely to generate clean data
- Don't have the data at our fingertips to move the study forward

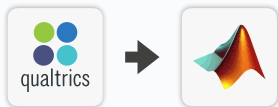
Goals

- Discuss passing data between MATLAB and Qualtrics
- When is it useful?
- How do we do it? (overview and demonstration)

When is this useful?

Use Cases

Get survey data into your experimental script



- Gives you access to survey data immediately
- Can use Qualtrics for anything outside of your core task

Use Cases

Open a survey from your experimental script

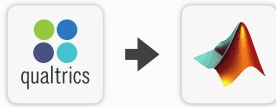


- Simplify the workflow, minimize human error
- Survey opens automatically
- Passes variables automatically into survey

How do we do it?

How to:

Get survey data into your experimental script



- Python script:
 - Call the Qualtrics API (~6 lines of code)
 - Reformat from JSON to flat (2 dimensional) table + write to CSV
- MATLAB script:
 - Run the python script using `system()` function (~3 lines of code)
 - Read the CSV

A few caveats:

- You may be able to call an API using MATLAB but I didn't bother to learn how because it is super easy in Python and I prefer Python
- If you are running in Psychopy, you don't need to write to the CSV
- There is a slightly more elegant way to do this, so you do not have to write/read the CSV, but I thought this was the simpler, more applicable way to do it

How to:

Open a survey from your experimental script



- Python script:
 - Create a dictionary of variables to pass through
 - Create an encoded URL + open it (~5 lines of code)
- MATLAB script:
 - Run the python script using `system()` function (~3 lines of code)

Walk-Through

Flow

- Start from the Participant Log
- Complete a pre-experiment survey in Qualtrics
- Start a MATLAB Function
- Complete a post-experiment survey in Qualtrics

- My MATLAB function just picks a random food; however, this would be your behavioral experiment.