

# Throughput & Arrival Timer: User Guide

URI  TES



## Engineering for Democracy

Recommendations that will lead to future sustainable practices and tools utilized to overcome new and future obstacles in voting and election processes.

The idea of democracy is simple.  
Execution is complicated.

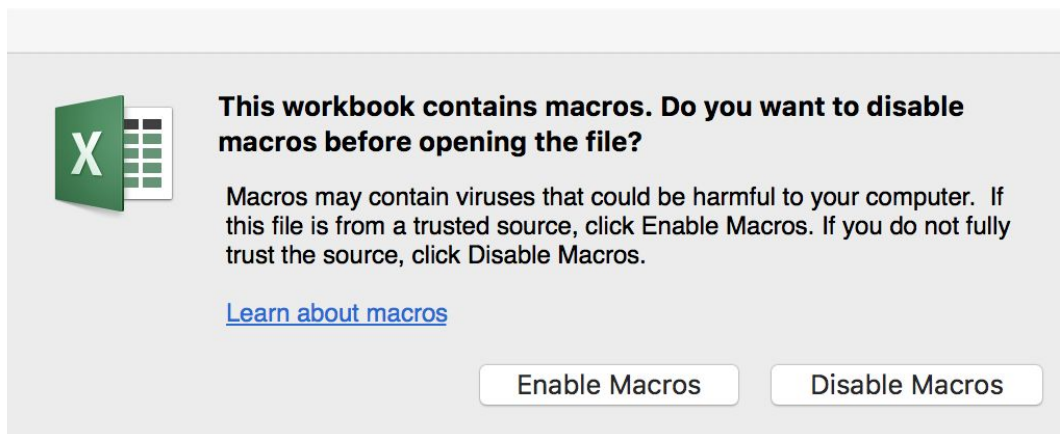
## Purpose of Tool

URI VOTES has created a collection of specialized timers to aid in on-site data collection during elections. There are six timers available for use through Excel: BallotScannerTimer, BMDTimer, BoothTimer, CheckInArrivalTimer, CheckInTimer, and ThroughputArrivalTimer. Each of these utilizes an Excel user form to display six individual timers. Each timer provides a text box for identifiers (i.e., clothing colors, accessories) so that several voters can be tracked simultaneously. This text is not saved and is automatically cleared after an observation is stopped. Times are recorded by marking the hour, minute, and second of the start and end of an observation, allowing the user to then determine the total time of the observation. An option for undoing the last or current observation is available to allow the user to correct mistakes while tracking a voter (e.g., the person is actually dropping off lunch, the observation was stopped prematurely or too late). To assist in fast-paced data collection, shortcut keys are built-in so that observations can be started, stopped, and arrivals can be marked quickly and accurately.

The general instructions listed below detail how to download and set up all of the timers. Following the general instructions are timer-specific instructions explaining the functions of each individual timer.

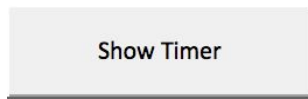
## General Instructions for Setting Up Timers

- Download the zip folder containing all of the timers from the Voting System Timers page on the URI VOTES website.
- Open the desired timer. A window will appear asking if you want to disable macros before opening the file. Select “Enable Macros”.



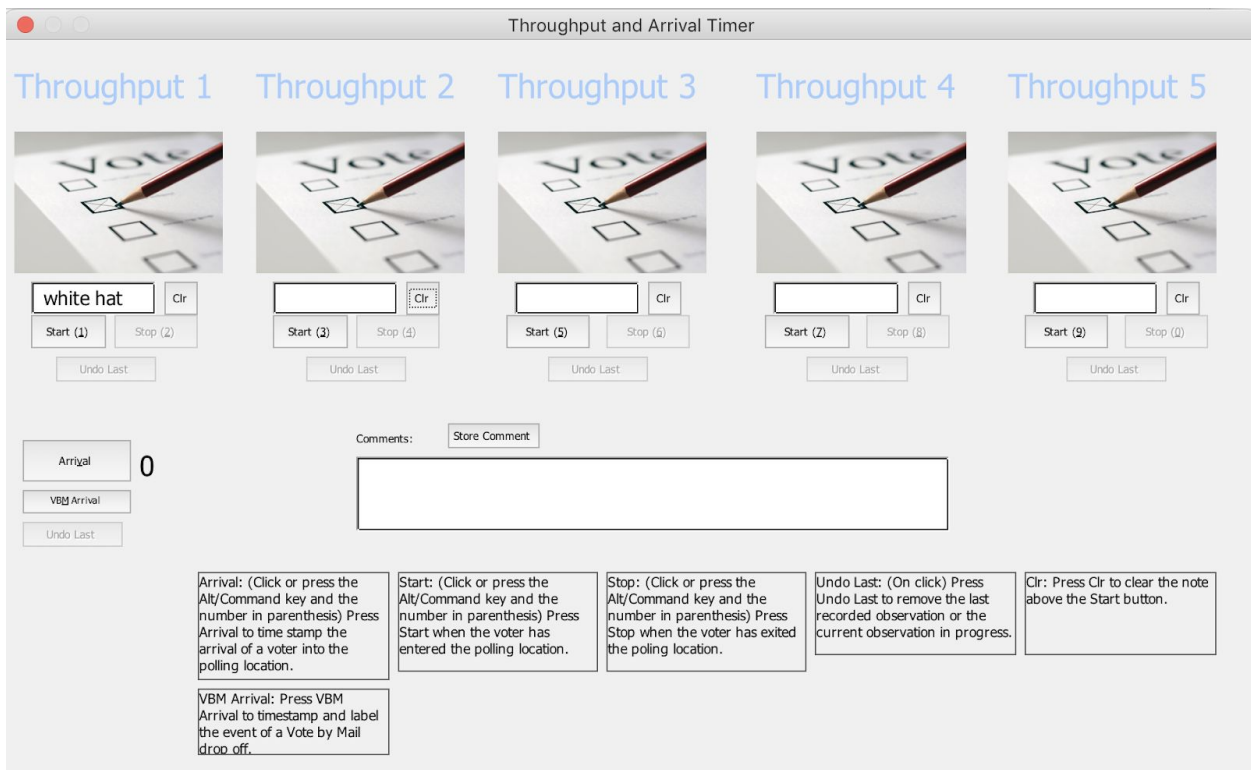
- The timer will appear as a window separate from the Excel sheet. Close the timer application window.
- Go to 'File' and click 'Save As' to select a save destination and rename the file. This will create a new file containing any data collected while saving the original timer file for future use.

- Once returned to the Excel sheet, click the 'Open Timer' or 'Show Timer' button to reopen the Timer application window.



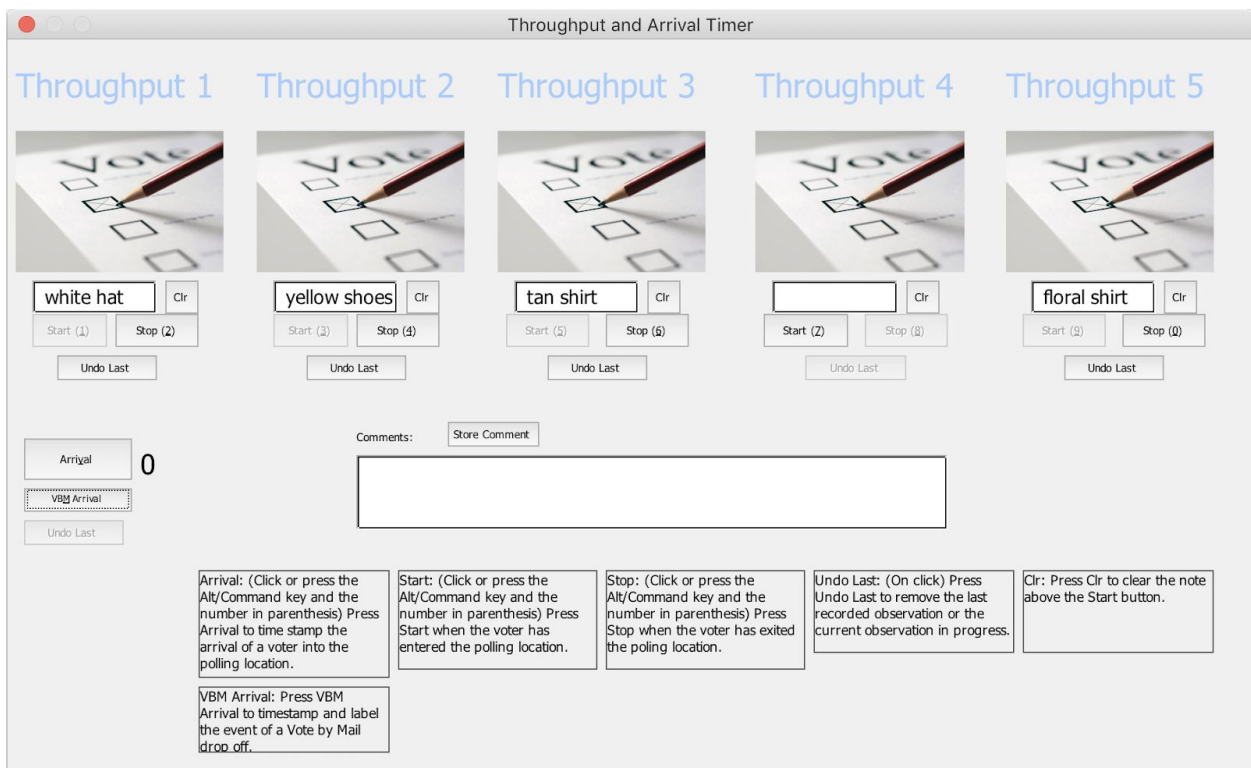
Throughput Arrival Timer:

- Throughput Timer
  - Identify a voter that is approaching the polling location. In the textbox of one of the timers, type a comment into the box that describes the voter and will help in tracking the individual throughout the system.
    - Refrain from using any language that comments on the voter's gender, age, race, ethnicity, or physical appearance.
    - These notes are not stored in the Excel file.
    - The 'Clr' button next to the text box clears the note if needed.



- When the voter reaches the beginning of the system, either click the 'Start' button for that timer or use the shortcut keys described at the bottom of the application window. The 'Start' button will then change color (i.e., grey on a Mac computer or green on a Windows computer).
  - 'Start' creates a timestamp in the Excel file that marks the time that the voter entered the system with accuracy down to the second.

- Ensure that there is a standardized method to marking the 'Start' of when a voter enters the system (e.g., when the voter enters the polling location, when the voter enters the check-in queue).
- When the voter exits the system, either click the 'Stop' button for that timer or use the shortcut keys described at the bottom of the application window.
  - 'Stop' creates a timestamp in Excel marking the time that the voter has exited the system.
  - Similarly to the start process, ensure that there is a standardized method for determining when a voter exits the system (e.g., when the voter casts their ballot, when the voter exits the polling location).
- If there is any need to remove an observation that is currently running or to remove the last observation for a timer, the 'Undo Last' button clears the last or current observation of the individual timer (e.g., when a voter exits the system and the data collector does not click the 'Stop' button).
- For each additional voter that the user tracks in the system, use a timer that is not currently in use and follow the steps outlined above. Up to five voters may be tracked at any given time.



- To save any comments during the data collection process, insert comments in the text box at the bottom of the application window and click the 'Store Comment' button.
- Occasionally exit the application window and save the file (do this when no timers are actively tracking a voter).

- Arrival Tracker
  - When a voter arrives at the polling location, either click the 'Arrival' button on the left of the window or use the shortcut keys described at the bottom of the timer.
    - 'Arrival' creates a timestamp in the Excel file that marks when a voter arrives at the polling location.
    - The number of total arrivals is listed to the right of the 'Arrival' button.
  - When a vote by mail ballot is dropped off, click the 'VBM Arrival' button.
    - 'VBM Arrival' creates a timestamp in the Excel file that marks when a vote by mail ballot is dropped off and labels the arrival as VBM.
  - If there is any need to remove the previous arrival observation, the 'Undo Last' clears the previous Arrival or VBM Arrival observation (e.g., when an individual is marked as an arrival but they are not a voter).

### **Feedback**

Please contact [URIVOTES@etal.uri.edu](mailto:URIVOTES@etal.uri.edu) with any questions, concerns, or feedback. The URI VOTES team will respond as quickly as possible to help resolve any problems and answer any questions.