The STAR Paradigm requires lots of organization because the animals are all going to be run at the same time, however all will progress at their own pace and only continue when they meet criteria. Once an animal reaches the Pre-Task phase, their schedule is set and they will run for 28 more days, however the amount of time it takes for them to get to that phase differs by animal and thus is critical to keep track of closely. There are three sheets here which are designed to work together and make the process going smoothly. After a few cohorts of running, I, Alex Brown, found this setup to be the easiest in the long run. I will explain what each sheet is and how to fill each one out and how it works below.

Blank STAR Sheets

This sheet is the printed each day and filled out by the experimenter from the data output by the MedPC programs. It contains a tab, "Master Program Sheet," with descriptions of all the STAR phases as well as the appropriate program to run with each phase. Each sheet should be printed daily before the experiments are run and multiple sheets will have to be printed since not all animals will be in the same phase. For example, most animals will be in different phases of acquisition at the same time, but when an animal moves to Pre-Binge, that sheet will also have to be printed. Care was taken to make the sheets as similar as possible so that things can be copied and pasted between sheets. The date is set at the top of the sheet to the current day, so printing it out each day will ensure that things can be kept straight more easily.

NOTE: When copying and pasting, I recommend always using the "paste values" function instead of just ctrl+v. This can be done by right-clicking then pressing "v" on the keyboard. This way, if any calculations were done on the numbers, as you'll see later, the numbers themselves will be copied, and not the calculations, which will refer to cells and thus mess things up.

Write down the data from each group after they've run and been weighed. This acts as a great primary resource to take down notes for the day and have a hard copy to always refer to. However, this data is also in the MedPC file itself, so if need be you can always refer back to the true original file if there are any questions or discrepancies.

NOTE: When you want to leave a blank in the spreadsheet, use " '- " (without the double quotes) as a placeholder -- it will still be selected when selecting data, but simply putting " - " can mess up some calculations.

Data Entry Sheets by Day

This sheet is used to put together all the data and keep track of how the whole group is doing day to day. **The first tab is a template that should be duplicated each day to a new tab to be edited for the day.** Columns A-G are exactly as in the "Blank STAR Sheets" that are printed every day and so can be copied over. See note above about copying data, especially here.

Column O, "Time to 100" will be removed once an animal hits Pre-Binge, but can be left blank with a " '- ". Column T, "FR Schedule" needs to be set based on the current program and schedule for each animal, however columns Q, R, S, and U will be automatically calculated based on other data in the sheet.

Lastly, rows are coded to highlight Green if animals have met criteria on two consecutive days. **NOTE:** This does NOT mean animals in green should always move on, as a completed second day of a phase and completed first day of the next phase would also register as "yes" and "yes", however it can help in keeping all individual animals organized. When an animal changes phases, I write "Yes-moved on" in the "met criteria yesterday" section, that way it should only highlight green when the animal has indeed done the same phase correctly for two consecutive days.

Data Entry Sheets by Animal

These sheets are the same exact data as the "Data Entry Sheets by Day" except the data is arranged, unsurprisingly, by animal instead of by day. This helps for a variety of reasons, both short- and long-term. To fill it out, simply fill out the date in Column A, and then copy each row from the "Data Entry Sheets by Day" and then paste (using right click + "v" to paste values) into rows B-X.

How this helps is two-fold. It gives you a way to more easily track animals day-to-day to determine what phase they're in. Since the criteria changes as the phases change, keeping track of if an animal passed the previous day (and if it was the same phase) is important. Similarly, it's important to know if an animal failed the same phase three times in a row so that they move back to the previous phase. Often, I'll keep the "By Animal" and "Blank" sheets open next to each other and go through animal-by-animal at the end of the day to see where each animal ends up the following day.

Secondly, since the entire experiment relies on within-animal changes, this will help when you need to copy an animal's behavioral data day after day (e.g. when they reach Pre-Binge, and you just want to take all Pre- and Post-binge Data). Since you can't copy any single day's data, since every animal is at a different part of the experiment, having it arranged in both ways is very helpful.

So by the end of the day, the following should be filled out:

1. Printed Blank STAR Sheet(s) with handwritten data taken from MedPC
2. Data Entry Sheet by Day – just the data from the sheets above, with some additional calculations automatically made in the sheet
3. Data Entry Sheet by Animal – just the data copied from the Data by Day, but arranged by animal to help with tracking animal's daily progress and later down the line for easier analysis
4. Updated Blank STAR Sheet(s) to have data for following day ready to print off when you come in and print the blank sheet for the day
   a. Trust me, it's MUCH easier to do this at the end of the day than the following morning. Definitely worth taking the time to fill out before heading home so that the next day runs smoother