

How to Pay Bonuses in Bulk on Amazon Mechanical Turk (MTurk) for Mac Users

David M. McEvoy
mcevoydm@appstate.edu

*Department of Economics
Appalachian State University*

March 2018

This is a step-by-step guide to paying bonus payments in bulk when using MTurk. This system comes in handy when using MTurk for economic experiments and other research projects that require decision-based payments.

I am in no way an expert on this topic. In fact, I have only a superficial understanding of command line coding in reference to MTurk tools. This guide is therefore directed to beginners; those who know how to create and post HITS as “requesters” on MTurk, but want to learn how to pay many workers bonuses in one fell swoop.

Installing Command Line Tools

1. You first want to make sure you have *Java Runtime Environment* installed on your machine. If you don't have it installed, don't know, or you want to update it, simply do a Google Search and it will direct you to the latest download page. I will avoid including a URL here since these change and are updated very often.
2. You need to download the folder of *command line tools* for MTurk for your operating system. For Mac users choose the Linux download. My recommendation is to do a Google search to find the latest version, but here is an active URL (as of March 2018): <https://requester.mturk.com/developer/tools/clt>
3. Place the downloaded folder in an obvious location and note the folder name and its location. For example, if you left the command line tools folder in your downloads folder here is what the location could look like: (c:/user/Downloads/aws-mturk-clt-1.3.1). I recommend changing the name of the command line tools folder to something simple. We will rename the

folder *mturkclt* for this tutorial.

Therefore the location is `c:/user/Downloads/mturkclt`

4. In the command line tools folder open the folder *bin* and open the file named *mturk.properties*. You have to make a couple of important changes to this document. The first is simple. Everywhere you see *http*, change it to *https*. There is only one important change that needs to be made but there is no harm in just changes all instances that you find. The next change is that you need to copy and paste your Amazon Web Services account *access key* and *secret key*. You can get these by opening your Amazon MTurk account as a requester and navigating to the AWS page. It is obvious where these need to be pasted in the *mturk.properties* document (don't include the brackets). When you have finished close (and save) the document.
5. Now you want to open the Terminal program on your Mac. You find this program in one of your utility folders (the icon is black screen with a small arrow).
6. Type: `export JAVA_HOME="/usr/libexec/java_home"` into the Terminal and hit return (nothing should happen except another command line prompt appears). This makes sure the program looks for Java in the correct place.
7. Type: `export MTURK_CMD_HOME = c:/user/Downloads/mturkclt` or your folder location. This is directing the program where to look for the MTurk command line toolset. Again, you should only see a new command prompt once you hit return.
8. Now test whether it is working correctly. In the Terminal go to the directory for the bin folder in your command line tool folder. For our example I would type `"cd Downloads/mturkclt/bin/"`
9. Let's check your MTurk account balance. Type `"./getBalance.sh"` and hit return. If it is working correctly your balance should appear.
10. Having trouble with `./getBalance.sh`? When your command prompt is successfully displaying the "bin" directory, type `"ls"` and hit return. You should see all the `.sh` files in the bin folder, including the `getBalance.sh`. If not, you are in the wrong directory. Retry the previous steps. If you do see the contents of the bin directory after running the `"ls"` command, try to run the following script: `"sh getBalance.sh"`.

Paying Workers Bonuses

1. Ok, now go to the Results page from your completed MTurk hit.
2. Download the results to a CSV file and open in Excel (or another program)

3. In a new sheet create four columns for *workerid*, *amount*, *assignment* and *reason*. Now pull the information you need from the results sheet to populate those four columns. Workerid and Assignment are obvious. The amount paid is up to you and will depend on whatever you are paying in response to. Same with the reason but make sure to put the reason in quotes.
4. Now create in a fifth column, create a formula in Excel (or other program) that yields a string for each observation that looks like: `./grantBonus.sh -workerid IDVALUE -amount PAYMENT -assignment ASSIGNMENTID -reason "You earned this bonus because..."` Basically you are just adding cells together and including the words workerid, amount, assignment and reason before the values. Note the `./grantBonus.sh` before the string is important.
5. Copy the formula down for all workers so that the fifth column is complete.
6. Now copy the contents of the fifth column (the string you just created for all workers)
7. Paste the entire thing in the Terminal at the command prompt. If it works correctly you will see a confirmation message for each worker that was paid a bonus. Make sure to hit the return key twice because the last entry will not go through if you don't.
8. To verify that all bonuses were paid go to the Manage - Results section of MTurk and observe the payments to workers. I have had better luck going to my Transaction History from my MTurk account page and viewing all payments. Note that bonus payments typically take 12 hours or so to post. However, your account balance should immediately reflect the bonus payments.