Written in Matlab 2019a

By: Brenden Hawk

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Instructions:

\*\*Keep everything in the 02\_Content Release Stat puller folder together. The function needs all the other files around it too.

1. It is highly suggested that you move all the mat files from the analyzer to a single folder.
2. Paste <variable\_name> = Content\_release\_stat\_puller() and change <variable\_name> to whatever you want as long as it doesn’t start with a number, have a space, or a hyphen (-).
3. Hit enter
4. Go to where you have you mat files from the analyzer
5. Select the ones you want
6. Hit enter
7. The structure will now be stored as a matlab variable. Right click on it and save it.
8. Double click on it (the name part, not the number part)
9. Double click on the field that you are interested in. You can copy anything into excel. Description of each field and the column name are bellow.

\*\* Optional: Run makePlots(<variable\_name>) with <variable\_name> being the same that you set in step 2.

New\_g\_spots: all the mat files that were loaded in cleaned up and such. Same structure as g\_spots

Fits: fit parameters for the baseline corrections

Traces: 3 section: baseline corrected traces, corrected traces for just during an event, corrected traces for just during a release

TimeStamp: when the stats were pulled

Num\_of\_events: total number of events pulled

Num\_of\_files: number of files put into the stat puller

Cum\_event\_intensity\_decrease: total amount of intensity decrease for each event calculated as:

(Corrected max intensity – intensity during release)/ Corrected max intensity

Event number, relative decrease % (0 🡪 1)

Release\_type\_calc: number or percent of events with a given number of releases

Release category, percent of events (0 🡪 1), Release category, number of events

Event\_max\_intensity: max intensity of event (only during an event)

Corrected max intensity

Releases\_per\_event: number of releases for each event

Event number, number of releases

Cum\_release\_duration: total amount of time events spent releasing content

Event number, duration in frames

Individual\_fusion\_pore\_duration: duration of individual content releases

Event number, release number for that event, duration in frames

Dialation\_time: time from start of first release to max fluorescence for that event

Time in frames

Shrink\_time: time from max intensity during first release to end of that release

Time in frames

Event\_length: time from docking to return to baseline

Event number, time in frames

First\_release\_length: duration of the first release for each event

Event number, time in frames

First\_release\_intensity\_decrease: relative decrease in fluorescence during the first release for an event. Calculated the same as total decrease, but confined to the first release event.

Event number, relative decrease % (0 🡪 1)

Files: list of the files that were put into the stat puller