

Key Variables	Description
A0s	Cell array. A0s{i} contains the A for sample data i.
File	Structure. Length of sample number. Containing two fields, 'options','Ysignal'. Options keeps the neuron.options. Ysignal keeps the background subtracted as well as de-noised data, which is essentially A*C after iteration.
Mode	String, either 'initiation'or 'massive', which means sampling and extracting all data respectively.
ns_storage_1	each column for each day, index for k in A or C such that when you specify A(ns_storage(:,1)) and A(ns_storage(:,2)), each row of the permuted A's from time point 1 and point 2 are the index for the same neuron in the original As
A	A=cat(2,A0s{:})
Amask	Amask =A>0. This Amask is used for calculating spatial correlation among A's across days.
ACS	Structure. Length of sample number. Three fields. 'Ain','Cin','STD'. 'Ain'and 'Cin'is the BigA and BigC in Figure2(ReadMe). 'STD'is the standard deviation of each temporal traces(Cin).
ind_del	There are two ind_del in different scopes in this BatchVer. ind_del of the output of mergeAC is an intermediate variable, indicating that these neuron(ind_del) are involved in merging. Users would not need to care about this one too much. The other one is in the output of final result, neuron_batch. ind_del here is an index for neurons that have temporal traces not deconvolved successfully. One can use the following command: