Dance

Choreography Analysis Program Documentation

# Instruction

1. Drag in your data folder to command window

# Design features

## Automatic archiving

## Database search

## Choreography integration

## Analysis package add ons

## Figure generators

## Re-run analysis

### Current status: manual

Reload Matlab.mat output, and manually run individual modules. For analysis folders that have been relocated from original saving position, need to manually reset MWTSet.pSaveA to new folder path. Drag and drop the analysis folder to commend window after Matlab.mat have been loaded (double click the file). Type in MWT.Set.pSaveA = cd;

# Modules

## Paths

### Function paths

### Data paths

### Save paths

## Administration

### Registration and log in

### Standardized naming, group folder naming, experiment naming, experimenter code

### Check structure of experiment folder, group MWT files, user experiment notes

### Name changes, Error handling

### Zip file archiving

### Update database

### Data hunting

#### Know what I am looking for = Get current database status:

##### Which MWT do I have

##### Which MWT I have are bad files

###### No blob

###### No set

###### No png

###### No summary

#### Look for MWT files names

#### Look for blobs

## Analysis set up

### Determine analysis objectives: save paths

### pre-set analysis package vs. personalized

### Measurement parameter: i.e. curve, stimulus dependent response (reversal duration, speed), time series

### Time parameter: interval

### Database search

### Sampling method

#### By group, N = plate

##### Groups statistics N = plates

#### By group, N = experiment

##### Groups statistics N = experiments

##### Under construction

#### By group, N = worm

##### Group statistics N = worm

##### Under construction

#### By experiment, N = plates

##### currently

#### By experiment, N = worms

#### By plates, N = worms

#### [Multiple sampling method per analysis run](#_Sampling_method)

Currently only can choose one analysis type, want to have multiple choices at the same time like graphing

### Determine statistics

### Graphic setting: subplot, color, line

#### Development – retrieve graphing options from graph packs

### Check required choreography output, import and check for errors

## Choreography

## Data importing and validation

### choreography error

### MWT experiment error

## Descriptive analysis

### Standard package: ShaneSpark

### Standard package: DrunkPosture

### Standard package: SwanLake – when you don’t know what you want to see

## Statistical analysis

## Graphing

### Development

#### Separate graph savings by graph extension type

### Bar graph

### Line graph

### Scatter

### Rastor

### Subplot vs individual plot

## Reporting

### Dropbox upload integration

### Email notification

### Analysis report

# Developer

## Revisions

### [20140419003](https://www.evernote.com/shard/s55/sh/2a4d2547-98ed-4b27-a416-aa25a7a674c4/15c139f5d42d85300846e579d400d749) – general revision on ShaneSpark

* change subplot y axis to start with zero and maximum to 110% of max y data value

### [20140419004](https://www.evernote.com/shard/s55/sh/44cb244f-9949-4097-85ce-5dccad9e63ab/62ebde8faea9b931edb19e09530e0c94) – ShaneSpark2

* building from swanlake 2 output, 1 second after tap
* check with Beethoven and ShaneSpark1 output

### [20140420001](https://www.evernote.com/shard/s55/sh/3d4fc4ff-2438-49d3-8fe1-ca3614d79400/23d930b0b71d4f7a7677d190970616ff) – MWTAdminMaster clean up

### [20140420002](https://www.evernote.com/shard/s55/sh/8fa2fd2d-6816-42f3-a7e2-a039c9b2eecf/9d613edd44bd4ebf0e292bd189bf0810) – subplot x axis match min X

## Bug Fixes

### [20140220003](https://www.evernote.com/shard/s55/sh/43f9f712-8f18-4964-9725-0b2bba670311/01b7e186f0e59c1c4ff048a7fd6bf0ed) - correct ShaneSpark RevFreq calculation to exclude N = 1

### [20140422004](https://www.evernote.com/shard/s55/sh/e64adff1-555e-4ed7-986e-5b6033aa09c7/b5a2fe4cedbc607fa14329169c9d2e82) – manually corrected MWT with no valid worms

## bug list

### [20140419001](https://www.evernote.com/shard/s55/sh/4f66dcfd-cb1a-4d30-bc9e-9b288d02e858/4d29fec7e2f945efc768b80a5fa17d7a)

### [20140419002](https://www.evernote.com/shard/s55/sh/ff0b7b42-c7e3-4eb8-9257-32f78cd27063/befb8205fcff01a51c4597f2c2687241) chore history validation

### Bug List (old)

* graph sequence
* bug within/between experients - do not need to ask if only one group
* default color - if run by plates\_worm will still think colour is assign via group
* when selecting “within experiments”, no N2 controls are found, temp fix by select any experiments

Index exceeds matrix dimensions.

Error in Dance\_DrunkPosture (line 101)

    A(p,2) = {dlmread(datevanimport{1})};

Error in Dance (line 106)

        [MWTSet.Raw] = Dance\_DrunkPosture(MWTSet);

Error in run (line 63)

evalin('caller', [script ';']);

bug: incorrect experiment number in MWTDataBaseMaster

Searching MWT files for group [N2]

Got 244 MWT files from 11 experiments

Searching MWT files for group [N2\_400mM]

Got 196 MWT files from 11 experiments

Deal with  0 out of 0 objects meet criteria. can use diary and pull out 0 object validation

**encountered choremster problem**

Validating MWT folder contents...

All MWT files contain .blob, .summary & .set

Need to chor 10 MWT files

Chor-ing MWTfile [20130528\_190551]...

Reading files: 1 summary, 0 reference, 1 object.

  Summary file has 10169 data points.

  0 out of 0 objects meet criteria.

Took 0.635 seconds to load data

Writing summary file /Volumes/Rose/MWT\_Analysis\_20131020/20130528B\_SJ\_100s30x10s10s\_Training\_Discard/N2/20130528\_190551/N2\_3x4\_t96h20C\_100s30x10s10s\_B0524ab.shanespark.dat

  Write successful.

Chor-ing MWTfile [20130528\_213030]...

Reading files: 1 summary, 0 reference, 1 object.

  Summary file has 10145 data points.

  0 out of 0 objects meet criteria.

Took 0.658 seconds to load data

Writing summary file /Volumes/Rose/MWT\_Analysis\_20131020/20130528B\_SJ\_100s30x10s10s\_Training\_Discard/N2\_400mM/20130528\_213030/N2\_3x4\_t96h20C\_100s30x10s10s\_B0524bd.shanespark.dat

  Write successful.

Chor-ing MWTfile [20140203\_154949]...

Reading files: 1 summary, 0 reference, 6 object.

  Summary file has 4160 data points.

  0 out of 0 objects meet criteria.

Took 1.715 seconds to load data

Writing summary file /Volumes/Rose/MWT\_Analysis\_20131020/20140203B\_SJ\_100s30x10s10s\_goa\_nonanalyzable/N2/20140203\_154949/N2\_5x3\_t96h20C\_100s30x10s10s\_C0109aa.shanespark.dat

  Write successful.

Chor-ing MWTfile [20140203\_155829]...

Reading files: 1 summary, 0 reference, 2 object.

  Summary file has 5162 data points.

  0 out of 0 objects meet criteria.

Took 1.141 seconds to load data

Writing summary file /Volumes/Rose/MWT\_Analysis\_20131020/20140203B\_SJ\_100s30x10s10s\_goa\_nonanalyzable/N2/20140203\_155829/N2\_5x3\_t96h20C\_100s30x10s10s\_C0109ab.shanespark.dat

  Write successful.

Chor-ing MWTfile [20140203\_160607]...

Reading files: 1 summary, 0 reference, 6 object.

  Summary file has 4107 data points.

  0 out of 0 objects meet criteria.

Took 1.317 seconds to load data

## Under development projects