

## Newest Todos

### use multiple input data files

- user uploads one file or data in data field with multiple time series separated by ###
- don't allow blank lines, return warning
- modify `data_has_correct_format` to check for lines beginning with hash symbols
- write routine splitting up data file after checking, return list of filenames, `$file-prefix.datafile$i.txt`
- modify `.pl` scripts to accept and return list of files instead of one file
- M2 should receive string with list of filenames
- pass list of filenames to M2 scripts (`discretize.m2`)

## Other Todos

- put svn head on polymath but in a different folder tmp
- put EA under revision control  $\Rightarrow$  **Brandy**
- make sure correct `$PATH` is set  $\Rightarrow$  **Franzi**
- make html form as table instead of using spaces by alignment
- *Analysis of State Space* is put in a table (  $\Rightarrow$  **Mike**) and should only be printed, if `$show_statespace` is set
- ~~rename filename, display function file name in polynome~~
- ~~need to change the logical structure: If user wants wiring diagram and functions, we need to use a different method~~
- ~~change names of files that are created, right now it's too long  $\Rightarrow$  **Mike**~~
- ~~need check whether number of nodes == number of nodes in data  $\Rightarrow$  **Franzi**~~
- add check for update schedule to user interface  $\Rightarrow$  **Franzi**
- give user more feedback about whether calculation worked/crashed/done
- make sure there are error messages (e.g., ccomps not found or file not writable)
- find safe way of uploading files, maybe it's ok for now

- can we distinguish between deterministic and stochastic models? - Yes, but it is not implemented right now for some reason  $\Rightarrow$  **We'll implement this once EA is on there, there were problems with the output**
- change JavaScript Rollover for "Type of Simulation", or all of them  $\Rightarrow$  **Brandy**
- create synchronuous model but simulate with sequential updates (compare to work on Fruit Fly by Sontag and Chavez)

### Priority - is this all for the paper submitted in April?

- React with parameters
- multiple data set
- standalone for react (and maybe simulation)
- modify Discretization to allow threshold (or other parameters)
- multistate
- Pandapas and diBernardo data set

## DIMACS

Polynome:

- ~~last done: why is show\_functions not working?~~
- Question: should functions called from polynome.pl return an error code or die (status quo, e.g., create\_input\_data.pl)?
- ~~trying to run a perl tidy on all files ( to format them ) -- should we decide on a coding style?~~
- maybe we can use strict everywhere to ensure proper coding, done so far for polynome.pl, should do it for everything
- ~~remove all of the commented code. I can't tell what is really not needed, and what might be useful in the future.~~
- use css. ~~Also, use multi-line 'print's for the html.~~
- write a routine: check\_data: inputs include the file, pvalue, nnodes. Perhaps a display as to the nature of the file could be displayed too: e.g: There are 13 time series data, with knockout data for ...  
check routines  
p\_value, n\_nodes: are they numbers and allowed numbers?  
is number of nodes equal to number of columns in data? is data in number

format  
print out number of lines in data

if sequential update is chosen, is the updateschedule valid?  
check for number of elements in schedule  
sort -u the array, then  $a[1]=1$  and  $a[n]=n$   
warning if update schedule but not sequential update

⇒ **Franzi**

- ~~The list of components, and their features should be a table.~~
- ~~links to tutorial and tip help should be local.~~
- ~~there is a hardcoded ref to /Users/fhinkel/Sites.~~
- Perhaps all files associated to a clientip should be in one directory? - Yes!
- ~~change the names of dgfilename, filename, ...~~
- ~~Have the main function determine the functional extent of the buttons. The inner code should not be checking for hardcoded strings?~~
- ~~Remove message from website about constant functions~~
- ~~Remove hard coded links to tutorial~~
- return feedback on functions/data (i.e., "you entered 3 time courses of lenght ...)
- eronjob in Polynome to delete old files
- multiple data ⇒ **Brandy**
- code design-modularity: Can we get a "coding" grant? NSF?
- web userstatistics, or registration for users
- ~~window refresh~~
- ~~revision control~~
- apache-stop process-script to kill: need a solution, also need solution if script runs too long
- webmaster - user support A
- extend to multistate
- Paper for more visible journal: Bioinformatics
- boolean → nonboolean

- allow to input functions in addition to data
- partial statespace + stats - partial view (prob  $> y$ )
- bio information: e.g., activation/inhibition in wiring diagram  $\rightarrow$  need definition of *Boolean inhibitor* (threshold? [?] computationally describe this set of functions ) and then algorithm  $\Rightarrow$  this is a PhD problem!
- bio syst-application: DiBernardo?
- dynamic programming: to evaluate functions more efficientlyA
- Large network limitation: maybe sampling? Alan's reduction method?
- Polymath  $\rightarrow$  Polynome
- ~~User interface: Boolean data, don't reset to default~~
- partial view
- more than one time course
- currently no user options
- NCF
- parallelization
- status of EA
- DREAM
- more extensive tutorial
- detailed example
- explore the probability of including coding theory alg

## DREAM

- Paola not
- Abdul maybe for NCF
- Small, focused teams
- meeting August 20-22 at MBI