

July 30th, 2010 - ADAM Analysis of Discrete Algebraic Models


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What we did this week

- ▶ Redesigned the website
- ▶ Added code to test for positive/negative feedback circuits
- ▶ Fixed bug in Allen's code
- ▶ Complete GINsim tests and incorporated info into paper
- ▶ Figured out how to use GINsim and verified PDS output from conversion code
- ▶ Worked on paper and poster

Redesigned Website



Analysis of Discrete Algebraic Models (ADAM) v0.2

ADAM uses a combination of simulation and algorithms to analyze the dynamics of discrete biological systems. It can calculate fixed points and limit cycles for GINsim files, Polynomial Dynamical Systems, and Probabilistic Boolean Networks.

If this is your first time, please read the tutorial. It is important that you follow the format specified in the tutorial. Make your selections and provide inputs (if any) in the form below and click Submit to run the software.

Note: The computation may take some time.

1) Input Functions and Network Description

Select format of input functions: ☒ GINsim ☐ PDS ☐ PBN

Enter Number of States Per Node: Polynomial

Select function file: No file selected
Text (.txt) or GINem (.g/em/)

Explanatory text that changes depending on what option is selected

OR (edit functions below)

```
f1 = 1 + x2  
f2 = x1
```

File text will be auto-loaded into text box underneath. Don't know how to make it clear that both PDS and probabilistic PDS will be taken though

2) Network Options

Select type of network:

- ☒ Conjunctive/Disjunctive
- ☐ Simulation (suggested for nodes
- ☐ Algorithms (suggested for nodes >11)


Explanatory text that changes depending on what option is selected

+ Additional Options

☒ Dependency Graph ☒ Signed Edges ☒ Functional Circuits

Options box specific to each network

Additional Options contains Dependency Graph, Signed Edges, & Functional Circuits. It will start off as a compressed box. Dependency Graphs will be pre-checked.



Plans for Next Week

- ▶ Finish paper
- ▶ Finish poster
- ▶ Decide on an application to include in Paper - look at BMC bioinformatics site for ideas
- ▶ Implement design changes to website
- ▶ Rewrite tutorial for new website
- ▶ Make final presentation