JFLAP

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• NPDA - 1990, C++, Dan Caugherty
• FLAP - 1991, C++, Mark LoSacco, Greg Badros
• JFLAP - 1996-1999, Java version
  Eric Gramond, Ted Hung, Magda and Octavian Procopiuc
• Pâté, JeLLRap, Lsys - Anna Bilska, Jason Salemme,
  Lenore Ramm, Alex Karweit, Robyn Geer
• JFLAP 4.0 – 2003, Thomas Finley, Ryan Cavalcante
• JFLAP 6.0-6.2 – 2005-2007 Stephen Reading, Bart
  Bressler, Jinghui Lim, Chris Morgan, Jason Lee
• Other related tools – Poladian, James, Daglas, Neisheiwat,
  Wong, Luce, Blythe, Dogrusoz, Vasudevan, Nibhunupudi,
  Tsang, Wolfman, Hardekopf, Leider
With JFLAP – theoretical computer science comes alive!

- Traditionally: pencil/paper formula approach

\[ (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_2\}) \]
\[ \delta = \{(q_0, b, q_0), (q_0, a, q_1), (q_1, a, q_0), (q_1, b, q_2), (q_2, a, q_1)\} \]

- With JFLAP: interactive and visual

![Diagram](image)
Topics in JFLAP

• Create and experiment with
  – Theoretical machines
    • Finite Automata
    • Pushdown Automata
    • Turing machines
  – Grammars
• Explore Construction type Proofs
  – Examples:
    • Convert DFA to regular grammar
    • Convert NPDA to CFG
Demos

• Please see the movie on the JFLAP web site