**Should be working on**

Tonight will be last Meggy Jr building session for the year

– 6-9:30pm in 425
– Email mstrout@cs.colostate.edu in advance to reserve a spot

HW1 due tomorrow night

– <> does not start with a letter

Read Ch 2.1, 2.2, 4 thru 4.2, context free grammars

**Lexer for MiniSVG**

– Demo lexer for Kiley Friday morning

---

**Plan for Today**

Finish discussing Transition Diagrams

MiniSVG Token Specification

Lexical Analysis for MiniSVG

---

**Transition Diagrams**

**Definition**

– A finite automata specialized for lexical analysis

**Differences from finite state automata**

– Finding more than one string in a single input stream
  – Do not accept until hit a character with no out transition
  – Asterisk notation indicates the need to put last character back in input
  – Do not show sink states

---

![Transition Diagram](image)
Process a and then peek at b.

After process character, peek at next character.

If next peek character does not correspond to an outgoing edge of current state, then accept token associated with last state if was a final state.

This example: recognize token abba when attempt to process 3rd a.
After accepting a token, reset to start state and set lexeme start, end, and peek at character after last lexeme.

Now let's force some white space between "abba" keywords.

Will accept token when try to process 3rd a.
Demonstration of Longest Match and Priority