struct Automaton

StateCount
StateList

Block of pointers

struct Transition
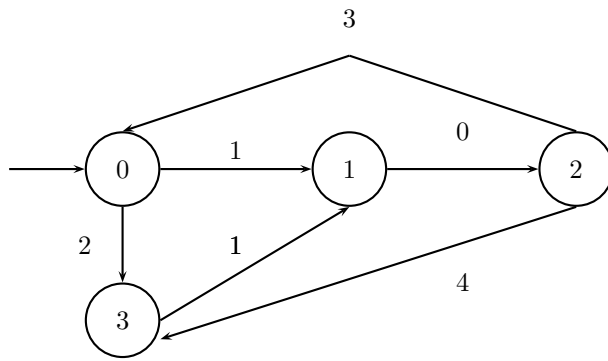
Action
State

Let us assume that the type of StateCount, Action and State fields is un-signed integer. The initial state is always 0. StateList field is of pointer type and it points to a block whose elements are pointers to a list representing transitions from that state. The following example illustrates the situation:

1

3

0

1
0
2

2
1
4

3

Automaton:

States: 0, 1, 2, 3
Actions: 1, 2, 3, 4

Data structure for the automaton

4

1		2
1		3
0	
2	
4		3
3		0
1	
1	