

Instruction Manual

Entry of a mealy automaton

To enter a mealy automaton, follow the steps below

In this case we will enter the following mealy automaton

M:	0	1
A	B, 0	C, 0
B	C, 1	D, 1
C	D, 0	E, 0
D	C, 1	B, 1
E	F, 1	E, 1
F	G, 0	C, 0
G	F, 1	G, 1
H	J, 1	B, 0
J	H, 1	D, 0

1. Select the Mealy option

Connected minimal automata

Which automaton do you want to minimize?

☒ Mealy
☐ Moore

Input Symbols

Tabla sin contenido

Add input symbol

Add input symbol

Delete input symbol

Output Symbols

Tabla sin contenido

Add output symbol

Add output symbol

Delete output symbol

Next

2. Enter the input and output symbols

To enter an input symbol, type the input symbol in its respective field and press the Add input symbol button. Similarly, an output symbol is added.

Connected minimal automata

Which automaton do you want to minimize?

☐ Mealy

Input Symbols

0
1

Add input symbol

Add input symbol

Delete input symbol

Output Symbols

0
1

Add output symbol

Add output symbol

Delete output symbol

Next

You can delete an input symbol by selecting it and pressing the Delete input symbol button. Similarly deletes an output symbol

- Press the Next button, it will take you to the window below

Connected minimal automata

Mealy Automaton

State	0		1		
	State	Output	State	Output	
Tabla sin contenido					

Add States

Add

Delete selected state

Initial State

Back

Find connected and minimal equivalent automata

- Add the states with their respective output symbols and output states
To add a state, type the states in its respective field and press the Add button

Connected minimal automata

Mealy Automaton

State	0		1		
	State	Output	State	Output	
A	<input type="text" value="b"/>	0 ▾	<input type="text" value="c"/>	0 ▾	
B	<input type="text" value="c"/>	1 ▾	<input type="text" value="d"/>	1 ▾	
C	<input type="text" value="d"/>	0 ▾	<input type="text" value="e"/>	0 ▾	
D	<input type="text" value="c"/>	1 ▾	<input type="text" value="b"/>	1 ▾	
E	<input type="text" value="f"/>	1 ▾	<input type="text" value="e"/>	1 ▾	
F	<input type="text" value="g"/>	0 ▾	<input type="text" value="c"/>	0 ▾	
G	<input type="text" value="f"/>	1 ▾	<input type="text" value="g"/>	1 ▾	
H	<input type="text" value="j"/>	1 ▾	<input type="text" value="b"/>	0 ▾	
J	<input type="text" value="h"/>	1 ▾	<input style="border: 2px solid #00aaff;" type="text" value="d"/>	0 ▾	

Add States

Add

Delete selected state

Initial State

Back

Find connected and minimal equivalent automata

To delete a state, select the state you want to delete and press the Delete selected state button

5. Choose the initial state

Connected minimal automata

Mealy Automaton

State	0		1		
	State	Output	State	Output	
A	b	0	c	0	
B	c	1	d	1	
C	d	0	e	0	
D	c	1	b	1	
E	f	1	e	1	
F	g	0	c	0	
G	f	1	g	1	
H	j	1	b	0	
J	h	1	d	0	

Add States

Add

Delete selected state

Initial State

✓ A

B

C

D

E

F

G

H

J

Find connected and minimal equivalent automata

6. Press the Find connected and minimal equivalent automata button, it will take you to the window below

Connected minimal automata

Mealy Automaton

State	0		1		
	State	Output	State	Output	
A	B	0	C	0	
B	C	1	B	1	
C	B	0	G	0	
G	F	1	G	1	
F	G	0	C	0	

Back

Show Additional Information

The automata presented in this window is the connected and minimal equivalent automata

If you want to know what the inaccessible states are and how the partitions were named, then

7. Press the Show Additional Information button

Connected minimal automata

State	0
State	Outp
A	B 0
B	C 1
C	B 0
G	F 1
F	G 0

The inaccessible states are: H J

The new names of partitions are:

- {A} = A
- {B, D} = B
- {C} = C
- {G, E} = G
- {F} = F

Acceptar

Back

Show Additional Information

Entry of a moore automaton

To enter a moore automaton follow these steps

In this case we will enter the following moore automaton

M_1 :

	0	1	
A	B	A	0
B	C	D	0
C	E	C	0
D	F	B	0
E	G	E	0
F	H	F	0
G	I	G	0
H	J	H	0
I	A	K	1
J	K	J	0
K	A	K	1

1. Select the Moore option

Connected minimal automata

Which automaton do you want to minimize?

Mealy
✓ Moore

Input Symbols

Tabla sin contenido

Add input symbol

Add input symbol

Delete input symbol

Output Symbols

Tabla sin contenido

Add output symbol

Add output symbol

Delete output symbol

Next

2. Enter the input and output symbols

To enter an input symbol, type the input symbol in its respective field and press the Add input symbol button. Similarly, an output symbol is added.

Connected minimal automata

Which automaton do you want to minimize?

Moore

Input Symbols

0

1

Add input symbol

Add input symbol

Delete input symbol

Output Symbols

0

1

Add output symbol

Add output symbol

Delete output symbol

Next

You can delete an input symbol by selecting it and pressing the Delete input symbol button. Similarly deletes an output symbol

- Press the Next button, it will take you to the window below

Connected minimal automata

Moore Automaton

State	0	1	Output	
State	State	State	Output	
Tabla sin contenido				

Add States

Add

Delete selected state

Initial State

Find connected and minimal equivalent automata

Back

- Add the states with their respective output symbols and output states
To add a state type the states in its respective field and press the Add button

Connected minimal automata

Moore Automaton

State	0	1	Output	
State	State	State	Output	
A	b	a	0	
B	c	d	0	
C	e	c	0	
D	f	b	0	
E	g	e	0	
F	h	f	0	
G	i	g	0	
H	j	h	0	
I	a	k	1	
J	k	j	0	
K	a	k	1	

Add States

Add

Delete selected state

Initial State

Find connected and minimal equivalent automata

Back

To delete a state, select the state you want to delete and press the Delete selected state button

5. Choose the initial state

Connected minimal automata

Moore Automaton

State	0	1	Output
	State	State	
A	b	a	0
B	c	d	0
C	e	c	0
D	f	b	0
E	g	e	0
F	h	f	0
G	i	g	0
H	j	h	0
I	a	k	1
J	k	j	0
K	a	k	1

✓ A

B

C

D

E

F

G

H

I

J

K

selected state

Back

Find connected and minimal equivalent automata

6. Press the Find connected and minimal equivalent automata button, it will take you to the window below

Connected minimal automata

Moore Automaton

State	0	1	Output
	State	State	
A	D	A	0
I	A	I	1
J	I	J	0
H	J	H	0
F	H	F	0
D	F	D	0

Back

Show Additional Information

The automata presented in this window is the connected and minimal equivalent automata

If you want to know what the inaccessible states are and how the partitions were named, then

7. Press the Show Additional Information button

