



# Flow modeling and Cellular Automata

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# Outline

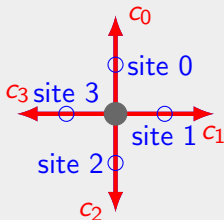


- 1 Lattice gas cellular automata
- 2 Clover
- 3 Cobertura
- 4 Compare

# Lattice gas cellular automata



## Definition



**Figure:** Here is an example of a single cell with 4 velocity vectors and 4 empty sites.

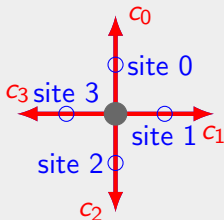
## Disadvantages

- 1 Bug fixing takes time.
- 2 Difficulty setting up in Netbeans.
- 3 Generated report lacks detail.
- 4 Not well documented.

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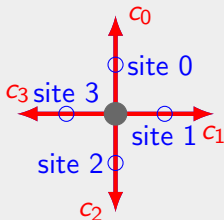
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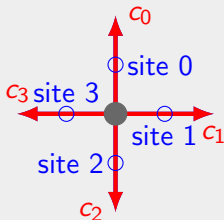
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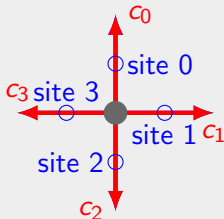
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## Advantages

- 1 Free for use on open source projects.
- 2 Supports various IDE's and CI engines.
- 3 Can quickly generate coverage clouds.
- 4 Generates detailed reports.
- 5 Added functionality.

## Disadvantages

- 1 Proprietary.
- 2 Is expensive for small companies.



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# Compare



	JaCoCo	Clover	Cobertura
Stand Alone	-	✓	-
IDE's	✓	✓	✓
CI engines	✓	✓	✓
Class Coverage	✓	✓	✓
Method Coverage	✓	✓	✓
Line Coverage	✓	✓	✓
Branch Coverage	-	✓	✓
Open source	✓	-	✓
User Friendly	✓	-	✓
Documentation	-	✓	✓
Added Functions	-	✓	-
Dedicated Support	-	✓	-