

# Notes sur « SATLIB - Benchmark Problems »

Lien : <https://www.cs.ubc.ca/~hoos/SATLIB/benchm.html>

Plusieurs problèmes de contrainte abordées dans ce lien, on élimine ceux qui sont aléatoires

## "Flat" Graph Colouring

Lien description : <https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/GCP/descr.html>

- [flat30-60](#): 30 vertices, 60 edges - 100 instances, all satisfiable
- [flat50-115](#): 50 vertices, 115 edges - 1000 instances, all satisfiable
- [flat75-180](#): 75 vertices, 180 edges - 100 instances, all satisfiable
- [flat100-239](#): 100 vertices, 239 edges - 100 instances, all satisfiable
- [flat125-301](#): 125 vertices, 301 edges - 100 instances, all satisfiable
- [flat150-360](#): 150 vertices, 360 edges - 100 instances, all satisfiable
- [flat175-417](#): 175 vertices, 417 edges - 100 instances, all satisfiable
- [flat200-479](#): 200 vertices, 479 edges - 100 instances, all satisfiable

## "Morphed" Graph Colouring

Lien description : <https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/SW-GCP/descr.html>

- [sw100-8-lp0-c5](#): 100 vertices, 400 edges,  $p=1$  - 100 instances, all satisfiable
- [sw100-8-lp1-c5](#): 100 vertices, 400 edges,  $p=2^{-1}$  - 100 instances, all satisfiable
- [sw100-8-lp2-c5](#): 100 vertices, 400 edges,  $p=2^{-2}$  - 100 instances, all satisfiable
- [sw100-8-lp3-c5](#): 100 vertices, 400 edges,  $p=2^{-3}$  - 100 instances, all satisfiable
- [sw100-8-lp4-c5](#): 100 vertices, 400 edges,  $p=2^{-4}$  - 100 instances, all satisfiable
- [sw100-8-lp5-c5](#): 100 vertices, 400 edges,  $p=2^{-5}$  - 100 instances, all satisfiable
- [sw100-8-lp6-c5](#): 100 vertices, 400 edges,  $p=2^{-6}$  - 100 instances, all satisfiable
- [sw100-8-lp7-c5](#): 100 vertices, 400 edges,  $p=2^{-7}$  - 100 instances, all satisfiable
- [sw100-8-lp8-c5](#): 100 vertices, 400 edges,  $p=2^{-8}$  - 100 instances, all satisfiable
- [sw100-8-p0-c5](#): 100 vertices, 400 edges,  $p=0$  - 1 instance, satisfiable

## Planning

### Blocksworld

Lien description :

<https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/PLANNING/BlocksWorld/descr.html>

[blocksworld](#): 7 instances, all satisfiable

## Logistics

Lien description : <https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/PLANNING/Logistics/descr.html>

[logistics](#): 3 instances, all satisfiable

## **All Intervall Series**

Lien description : <https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/AIS/descr.html>

[ais](#): 4 instances, all satisfiable

## **SAT-encoded Quasigroup (or Latin square) instances**

Lien description : <https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/QG/qg.descr.html>

[qg](#): 22 instances

## **SAT-encoded bounded model checking instances**

Lien description : <https://www.cs.ubc.ca/~hoos/SATLIB/Benchmarks/SAT/BMC/description.html>

[bmc](#): 13 instances

## **DIMACS Benchmark Instances**

Large SAT-encoded Graph Colouring problems

[GCP](#): Large SAT-encoded Graph Colouring problems - 4 instances, all satisfiable [description \(html\)](#)

Instances for problem in learning the parity function

[PARITY](#): Instances for problem in learning the parity function - 20 instances, all satisfiable [description \(html\)](#)

### Instances from a problem in inductive inference

II: Instances from a problem in inductive inference - 41 instances, all satisfiable [description \(html\)](#)

### SAT-encoding of Towers of Hanoi

HANOI: SAT-encoding of Towers of Hanoi - 2 instances, all satisfiable [description \(html\)](#)

### Circuit fault analysis: bridge fault

BF: Circuit fault analysis: bridge fault - 4 instances, all unsatisfiable [description \(html\)](#)

### Circuit fault analysis: single-stuck-at fault

SSA: Circuit fault analysis: single-stuck-at fault - 4 instances satisfiable, 4 instances unsatisfiable [description \(html\)](#)

### Pigeon hole problem

PHOLE: Pigeon hole problem - 5 instances, all unsatisfiable [description \(html\)](#)

### Encoded 2-colouring forced to be unsatisfiable

PRET: Encoded 2-colouring forced to be unsatisfiable - 8 instances, all unsatisfiable [description \(html\)](#)

*Note à moi-même : « forced to be unsatisfiable » comme si l'idée que ce soit irrésoluble fasse partie des buts*