

Software Quality FS 2016

Exercise 1 - Discussion

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Grading

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Colony of Chameleons

Duration/Probability of change

Colony of Chameleons

Safety? Liveness?

Safety

*Something **bad** never happens*

Liveness

*Something **good** Eventually happening*

- All chameleons have the same color
- No chameleon are left

Colony of Chameleons

Limitations of SPIN

Number of states explodes rapidly.

If the search is not exhaustive, no guarantee to find a violation even within the search range.

Colony of Chameleons

Order of processes

Changing the process order changes the depth for the verification

Petri Nets

- Deadlock
- t4 fired at least once
- t3 can be fired an infinite number of times
- As soon as p4 receives a token it never gets empty again