

Projects for Extreme Multiprogramming

Rules

- Deadline is April 24th 12.00
- The report should be limited to
 - 10 pages for 1 person projects
 - 15 pages for 2 person projects
 - 20 pages for 3 person projects
- Choice of language is free
 - Danish
 - English
 - ☺

Contents of a report

- Choice of project
- Definition of project
- CSP formulation
- Choice of implementation language
- Implementation
- Correctness test
- Scalability tests

Choice of project

- Describe the project you have chosen briefly
- Describe why you believe it would fit well with CSP
 - Complexity reduction
 - Parallel performance
 - Modularization

Definition of project

- Define what you seek to achieve in your project
- Limit the scope
 - Choose explicitly to leave out certain aspects
 - Reduce complexity of the model
- Make sure your goal is well defines

CSP formulation

- Motivate the process model you choose
- Make a CSP formulation
- Graphic
 - Remember to name the channels
- Algebraic
 - Entirely optional!!!
- Make use of modularization
 - Use 'networks-within-networks'
 - Even if you end up not implementing all of them

Choice of implementation language

- List the requirements of the language you need
- Benchmark with the options presented in this class
 - JCSP
 - C++CSP
 - Libcsp
 - Occam
- Make and motivate your choice

Implementation

- Describe the CSP aspects of your implementation
 - No need to describe the application 'body' in any detail that is not relevant to CSP
- Define your protocols
 - i.e. what is passed as messages
- Motivate and describe is portions of your CPS network is not implemented as a network in the code

Correctness test

- Design and describe a test-suite that verifies the correctness of your implementation
 - Use CSP processes as monitors if at all possible
- Run the tests and verify that your program is correct

Scalability tests

- Define scalability on your case
 - More processors
 - More hosts on a network
 - More processes in your network

The usual suspects

- Introduction
 - Including structure of the report
- Conclusion
 - Make sure it is a conclusions section and not a discussion
- References
 - You should be able to write reports with proper use of references by now