

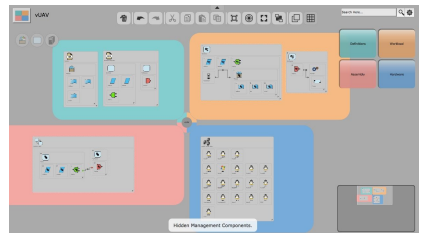
# Performance Modelling with Constrained Distributed Environments

## Project description

The MEDEA Performance Modelling Environment is a System Execution Environment that extends beyond the modelling and analysis of individual systems to the evaluation and performance prediction of an integrated System of Systems. A System Execution Modelling approach involves the development of executable models that allow a model of the system in question to be built and deployed onto hardware similar to the real platform's infrastructure. This process allows performance tests of an integrated system to be conducted very early in the design stage, highlighting problems that are usually only found toward the end of projects with traditional design methodologies.

We have available a number of PhD projects within this space, working collaboratively with our research team to:

- better understand how we can model distributed systems within constrained environments,
- how we can model systems with new hardware considerations such as within Cloud or VM-based environments, or incorporating



hardware elements such as FPGA/GPU, and

- how we can understand and communicate performance and real-time analysis using effective visualisation.

## Student Attributes

- You might have an interest in distributed systems design and performance prediction and have an interest in exploring new hardware environments.
- You might also have an interest in visualisation, and how we can effectively communicate information to perform analysis on real-time data.

## More Information

<http://blogs.adelaide.edu.au/cdit/>

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