



MORPHEUS

Abstract of D5.2.2: Definition of reference baselines and evaluation metrics

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ABSTRACT	This document is intended to define the metrics against which the MORPHEUS architecture and tools will be appraised. For each metrics and for each case study, the needs of the application, the figures currently obtained with state of the art technology and the appraisal process are discussed. It is the second release. The first one was sent in June 2006 but needed improvements according to the EC reviewers
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Four case studies and three metrics have been selected to appraise the MORPHEUS architecture and tools. The four case studies have been discussed in document D5.1. The three metrics are presented in this D5.2 document. These 3 metrics are:

- _ Reconfiguration needs
- _ Processing power (with complementary figures on silicon area and power consumption)
- _ Design time and cost

For each metrics and for each case study,

- _ the definition of the metrics
- _ the needs of the application
- _ the reference baseline (state of the art of current technology)
- _ the appraisal process

are discussed. The results are summarised in a table.

A 1st conclusion from this discussion is the great variety of requirements as coming from the applications chosen in the case studies.

A 2nd conclusion is the inter-dependency of needs. Very often, a need coming from an application can be reduced during implementation choices but this would lead consequently to increase another need. The consequence for an architecture like MORPHEUS which is still under design phase is that a close interaction between architecture designers and application designers is a very fruitful opportunity to optimise both the architecture and the implementation choices. This will be the work to do in the framework of the MORPHEUS project during the coming months.

