



MORPHEUS

Abstract of D2.5.1: Toolset integration report

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ABSTRACT	This document is the abstract of the D2.5.1 It is available on the MORPHEUS public website
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The D2.5.1 deliverable is the report for integration of the phase 1 toolset.

At the very beginning, a table summarizing the list of required packages is given with size information. A fully detailed description of the way to install the toolset is provided including compiler, RTOS and high level synthesis tools (Spatial Design tools). Also, installation of simulation environment is explained since it is required for toolset generated code usage and validation.

The toolset modules integration is done through the successive installation and basic test of modules.

The installation procedure shows the complexity of the full set. However, the complete toolset can be installed quite quickly.

The toolset utilization is explained through an example taken from the test cases provided by application partners of the project. The video noise reduction application has been chosen for illustration purpose.

The required description information are listed in detail and clearly explained for the application programmer.

Then, the implementation of the application toward the MORPHEUS platform is explained. The most original part is the synthesis of the accelerated function that notably requires to manipulate graphical interface to handle the data structures that are processed by the execution platform.

Intermediate files generated are explained for information purpose only. Compilation of the global program is very easy since one just needs to compile the required files including the C language application code and the Hardware Information File generated by the Spatial Design modules.

However, the toolset is today not yet fully tested nor fully operational. In the conclusion, the status table (on July 31st 2007) is provided. All main steps of integration have been passed but MADEO module is not yet fully operational, so its integration could not be fully checked. Simulation of a global application is not yet achieved. It has therefore not yet been possible to make evaluations of performances, areas, quality of schedules, etc.

This is not due to particular technical issue but more to the global effort required to achieve this status of achievement. This work is currently still progressing. As a conclusion, even if the toolset can not be considered as fully tested, its integration frame can be considered to be in place.

