

## **Benchmark Suite for the Design Contest**

This file describes in detail the employed benchmarks for evaluating the proposed toolsets. In order to derive the reference solution for the design contest, we will employ the Hotspot-6.0 suite with the annotated configuration file ("*hotspot.config*"). The grid size for thermal analysis is considered 64x64.

*List of files:*

✓ General purpose:

- **RUN\_HOTFLOORPLANNER.sh**: Script for executing the hotfloorplan tool. This script will be also used for computing the reference solution.
- **RUN\_HOTSPOT.sh**: Script for executing the hotspot tool. This script will be also used for computing the reference solution.
- **hotspot.config**: Employed configuration file that describes different features of the target architecture.

✓ Benchmark files:

- **benchmark\_xx.desc**: Benchmark's description in format compatible to Hotspot suite. Includes information about the architectural components (e.g. size, candidate aspect ratios, etc.), as well as about the wires that connect pair of these components.
- **benchmark\_xx.p**: Power consumption per component for floorplanning purposes.
- **benchmark\_xx.flp**: Text version of the benchmark's floorplan, as it is derived from the Hotspot suite.
- **benchmark\_xx.flp.pdf**: Graphical representation of the benchmark's floorplan, as it is derived from the Hotspot suite (demonstration purposes only).
- **benchmark\_xx.ptrace**: Power traces required for performing thermal analysis at Hotspot suite.
- **benchmark\_xx.pdf**: Thermal map as it is derived from the Hotspot suite (demonstration purposes only).