

Towards an HPC Certification Program



Julian Kunkel, K. Himstedt, N. Hübbe, H. Stüben, S. Schröder, M. Kuhn,
M. Riebisch, S. Olbrich, T. Ludwig, W. Filingner, J. Acquaviva, A. Gerbes,
L. Lafayette

<https://hpc-certification.org>

Fifth SC Workshop on Best Practices for HPC Training and Education

2018-11-12

Outline



- 1 The Program
- 2 The HPC Certification Forum
- 3 Summary & Future Work

The HPC Certification Program



Goals

- Standardizing HPC knowledge representation
- Supporting navigation and role-specific knowledge maps
- Establishing international certificates attesting knowledge

Content of the Certification Program



- Skill is characterized by unique key, background, knowledge covered
- Skill tree defining the organization of the competences
- Certificates bundle several skills into attestable unit

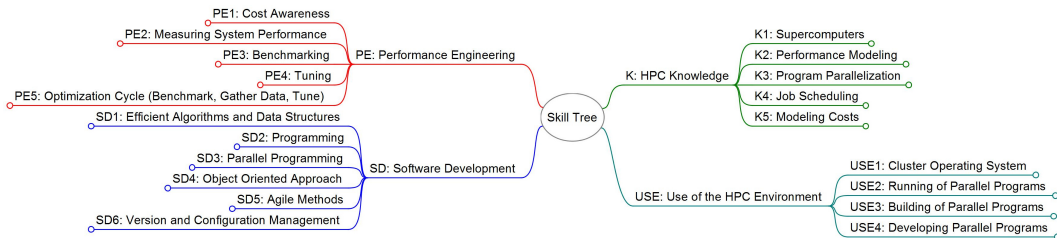


Figure: Top-levels of the skill tree

- Content is **NOT** covered and subject to content providers
 - We may link good content on our page

Status



- A first version of the skill tree is released (35 basic skills)
 - ▶ Technically implemented as XML
 - ▶ Contribution to GitHub
 - <https://github.com/HPC-certification-forum/curriculum>
- JavaScript for visualization of skill tree
 - ▶ Can be embedded in your webpage and adapted
 - Role/software-specific knowledge
 - What should people know to effectively work in your environment?
- The work was bootstrapped and is supported by the PeCoH project¹

¹PeCoH was supported by the German Research Foundation (DFG) under grants LU 1353/12-1, OL 241/2-1, and RI 1068/7-1.

The HPC Certification Forum



The HPC-CF the central authority for the development of the program

Organization Details

- An independent international body
- Organized into
 - ▶ Steering board
 - ▶ Full members with voting rights
 - ▶ Associate members

Responsibilities

- Curating and maintaining the skill tree and certificates
- Providing tools and ecosystem around the competences

Summary & Future Work



- Goals: standardizing HPC knowledge representation
- If you are interested, visit us and join our mailing lists:
<https://hpc-certification.org>

Next steps

- Finalizing the first version of the skill-tree (V1)
- Releasing a seal that can be added to training material
- Finalizing the documentation how to create views with the JavaScript