

Hints to Fill In the Project Application Form

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<https://pc2.uni-paderborn.de/>

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1. Project Classification

The application for computing time on the HPC systems at PC² distinguishes between three classes of projects: Test, small, and large projects. The amount of applied resources determines the class of the project and the required information for the assessment.

Test Project

Purpose: Pre-work for applying computing time (feasibility tests, scalability tests, determination / estimation of program run times, trial calculations, etc.). Test projects are implemented by means of a *sniff account*.

- A *sniff account* has a maximum lifetime of 30 days and will be automatically removed.
- It is not possible to migrate a sniff account to a small or large project.
- The usage of resources is limited:
 - Noctua:
 - Max. 100 nodes, 1 FPGA, job runtime 2 hours, low priority,
 - 50 GByte scratch directory.
 - OCuLUS:
 - Max. 1600 cores, 1 GPU, job runtime 2 hours, low priority,
 - 50 GByte scratch directory.
- A proposal can be submitted at any time.

Small Project

- A small project has a maximum of 2 million core hours.
- Can only be requested by scientists from universities or research institutes located in North Rhine-Westphalia (NRW).
- A proposal can be submitted at any time. The maximum project duration is 12 months.

Large Project

- A large project has more than 2 million core hours.
- The project duration is 12 months.
- Large projects are evaluated on a biannual schedule.
- Large projects have to explicitly demonstrate their degree of parallelism, efficiency and scalability on the available HPC systems or a comparable installation. Applicants from North Rhine-Westphalia (NRW) have to describe their parallel efficiency but are exempt from the high requirements in terms of parallel scalability.

2. Hints to Fill In the Form in Case of a Test Project

Project Title:

- voluntary statement

A: Organization

Fill in the name of the organization, department, institute, and the postal address.

B: Principal Investigator

- voluntary statement

C: Project Administrator

This person applies for the test project.

Only an official e-mail address of the organization / institute is accepted.

Members of the Paderborn University should also fill in their IMT account name.

D: Project Abstract

- voluntary statement

E: Project Funding

- voluntary statement

F: Project Duration

- not needed. Maximum is 30 days.

G: Resource Requirements

- Specify the resources you want to use. E.g.: OCuLUS, Noctua, FPGA, GPU

3. Hints to Fill In the Form in Case of a Small Project

Project Title:

A describing title with a maximum length of 90 characters.

A: Organization

Fill in the name of the organization, department, institute, the postal address, and the URL of the homepage.

B: Principal Investigator

The scientific leader is in charge of all scientific and legal affairs of the project. Typically, this person is a professor or a junior professor. Exceptions have to be justified with, for example, a description of the scientific background and track of the applicant.

Only an official e-mail address of the organization / institute is accepted.

C: Project Administrator

The project administrator is the contact person of the PC² for all project relevant issues. Typically, this person is a scientific assistant. Only an official e-mail address of the organization / institute is accepted.

Members of the Paderborn University should also fill in their IMT account name.

D: Project Abstract

The abstract should expose the target of the project, applied methods, and keywords to simplify the review process. Maximum is 2048 characters. Information about accepted projects (title, abstract, principal investigator, affiliation, illustrations and figures, references to major publications) may be published on the PC² website and in reports.

E: Project Funding

Fill in the funding organization and the identification number / support code / contract number.

F: Project Duration

Begin (month and year) and the duration in months. Maximum is 12 months.

G / H: Requirements

- HPC Systems
 - Voluntary statement
- Core-hours
 - Estimated number of core-hours needed.
- FPGA-hours
 - Estimated number of FPGA card hours needed.
- GPU-hours

- Estimated number of GPU card hours needed.
- GPU-type
 - Required if a non-zero number of GPU-hours is requested.
- Memory per core for a typical job
 - Size of main memory per core (GByte RAM).
- Cores per typical job
- Permanent disc capacity
 - Capacity given in GByte, needed for persistent files.
 - The features of our file systems are described here:
<https://wikis.uni-paderborn.de/pc2doc>
- Temporary disc capacity
 - Capacity given in GByte, needed for scratch files.
 - The features of our file systems are described here:
<https://wikis.uni-paderborn.de/pc2doc>
- Software requirements
 - Which software packages are required? A list of already installed software and available licenses is shown on our website.
 - Please ask for missing and needed software.

4. Hints to Fill In the Form in Case of a Large Project

Project Title:

A describing title with a maximum length of 90 characters.

A: Organization

Fill in the name of the organization, department, institute, the postal address, and the URL of the homepage.

B: Principal Investigator

The scientific leader is in charge of all scientific and legal affairs of the project. Typically, this person is a professor or a junior professor. Only an official e-mail address of the organization / institute is accepted.

C: Project Administrator

Not necessary. Can be specified later if the project is accepted.

D: Project Abstract

The abstract should expose the target of the project, applied methods, and keywords. Maximum is 2048 characters. Information about accepted projects (title, abstract, principal investigator, affiliation, illustrations and figures, references to major publications) may be published on the PC² website and in reports.

E: Project Funding

Fill in the funding organization and the identification number / support code / contract number.

F: Project Duration

Not necessary, duration is 12 months.

G / H: Requirements

- HPC system
 - Voluntary statement
- Core-hours
 - Estimated number of core-hours needed.
- FPGA-hours
 - Estimated number of FPGA card hours needed.
- GPU-hours
 - Estimated number of GPU card hours needed.
- GPU-type
 - Required if a non-zero number of GPU-hours is requested.
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- Software requirements
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Additionally, a more specific description is required. Please use the given template published here: <https://pc2.uni-paderborn.de/go/hpc-proposal-forms>