## Instructions for setting up an electronic taskbook for course assignments "CS321. Parallel and multithreaded programming" and "Parallel and distributed programming"

## October 3, 2023

- 1. Install Visual Studio system (any version from 2008 to 2022 (2022 hopefully would work too))
- 2. Install MS-MPI http://ptaskbook.com/download/msmpisetup.exe
- 3. If you can't use MS-MPI for some reason, install the MPICH2 1.3 system (http://www.mpich.org/static/downloads/1.3/mpich2-1.3-winia32.msi). The installer for the MPICH2 system must be run in administrator mode! You can, for example, run the Start / Accessories / Command Prompt program in administrator mode and run this msi file in it. For all installer prompts, it is enough to select the answers offered by default
- 4. Install the electronic Programming Taskbook version 4.23 (http://ptaskbook.com/download/PT4Complete\_v4\_23ruen.exe) To complete tasks on parallel programming, registration of the taskbook is not required
- 5. When prompted for a student's name in PT4Setup, you can provide an arbitrary name. The PT4Setup program can then be closed immediately by pressing the Esc key.
- 6. Install the Programming Taskbook for MPI-2 (http://ptaskbook.com/download/PTforMPI2\_v1\_5ruen.exe)
- 7. In the window of the PT4Setup program, which will open after the installation of the Programming book Taskbook for MPI-2, go to the section with a list of programming environments and check that the taskbook has detected the Visual Studio system (the box next to Microsoft Visual C++ with the appropriate version is checked) and the MPICH2 system (the box next to MPICH2 1.3 is checked)

- 8. Go to the next section of the PT4Setup program and select Microsoft Visual C++ as your programming environment. The working directory of the problem book does not need to be changed; the default directory is C:\PT4Work. Close the PT4Setup program
- 9. Install the Programming Taskbook for OpenMP version 1.8 http://ptaskbook.com/download/PTforOMP\_v1\_8ru.exe
- 10. Copy the access.dat file, containing the certificate for accessing the remote repository, to the taskbook's working directory (C:\PT4Work). The certificate archive will be provided separately
- 11. The computer must be connected to the Internet when performing the following steps, as well as when completing educational tasks.
- 12. To select the job to run, run the Load.lnk shortcut in the working directory (C:\PT4Work). The first time you run the Load.lnk shortcut, enter the activation key in the access certificate activation window. When prompted to edit the results file results.dat, select the "Yes" option. After the PT4Load program window is displayed, make sure that the list of task groups contains groups with the MPI prefix and the OMPBegin group, and that the window contains a label with the text "AV" (if there are no groups, try reinstalling the PT for MPI task books). 2 and PT for OpenMP; if the text "AV" is missing, check to see if the C:\PT4Work directory contains an access.dat file)
- 13. Clicking on the label "AV" will display a list of tasks included in your option.
- 14. Now you can specify the name of the required task and start its execution