

Parallel Programming Support System for Transputers – Educational Software

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Abstract. The paper describes Parallel Programming Support Software (PPSS) which enables creating and executing parallel programs in transputer systems. The software consists of two parts. The first element is WWW based server software for controlling compilation and execution of parallel programs. The second element is intended for supporting the phase of parallel program preparation. The following elements were considered: graphical editor for generation of processor and process architectures, graphical support for gathering parameters of software and hardware, process allocation support, code editor with on-line help about procedures supporting parallel programming and checking modules for communication calls.

The basic knowledge of parallel systems and access to Internet on the WWW level enable parallel computing with help of PPSS. The initial tests provided in the winter semester 2000 at our Parallel Laboratory showed that use of the PPSS led to a significant reduction of time needed for project preparation and solved problems concerning exclusive access to parallel computing environments. Using PPSS students were able to obtain more advanced results in the design of parallel algorithms and parallel processing. The system was prepared by four graduate students of Computer Science as their thesis [2].

Key words: parallel programming, educational software, transputers, WWW server