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MultiMATLAB: MATLAB on Multiple Processors

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1996 Technical Report

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Abstract

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principal languages of desktop scientific computing. A system is described that enables one to run MATLAB conveniently on multiple processors. Using short, MATLAB-style commands like Eval, Send, Recv, Bcast, Min, and Sum, the user operating within one MATLAB session can start MATLAB processes on other machines and then pass commands and data between between these various processes in a fashion that maintains MATLAB's traditional user-friendliness. Multi-processor graphics is also supported. The system currently runs under MPICH on an IBM SP2 or a network of Unix workstations, and extensions are planned to networks of PCs. MultiMATLAB is potentially useful for education in parallel programming, for prototyping parallel algorithms, and for fast and convenient execution of easily parallelizable numerical computations on multiple processors.

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