Class Project

Project Notes

- In BC notes on the boundary propagation updating scheme is described.

- Compile and execute jacobi.c, with a large enough mesh size to run long enough for obtaining reasonable timing information.

- Using jacobi.c develop a Gauss-Seidel (Gs.c) program and compare it against jacobi in terms of elapsed execution time and the number of iterations to achieve convergence.

Project Notes

- Compile and execute jacobiBC.c, and compare it with jacobi.c and Gs.c.

- Using the frame work of jacobiBC.c develop a parallel version.

- Using the frame work of jacobiBC.c develop a similar parallel vesion for GsBC.c

Project Notes

- Provide a through analysis of speedup, no. of iterations for convergence, and efficiency.

- In your analysis explain the reasons for the performance gains.

- The organization of you project results, analysis and a concise but complete discussion of your work (implementation + problems encountered + steps in developing your algorithm + etc.) will all be graded.