

UNIVERSITY OF CALIFORNIA, SAN DIEGO

UCSD

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

CENTER for RESEARCH in BIOLOGICAL STRUCTURE

NATIONAL CENTER for MICROSCOPY and IMAGING RESEARCH
at San Diego

Department of NEUROSCIENCES
Room 1000 Basic Science Building
LA JOLLA, California, 92093-0608
TEL: (858) 534-2251 FAX: (858) 534-7497
EMAIL: mhellisman@ucsd.edu

*A NIH Supported Resource Center for High
Voltage Electron Microscopy and Image Analysis -
established and sponsored by the
National Center for Research Resources*

March 19, 2001

Professor Ken Kennedy
Department of Computer Science
Rice University

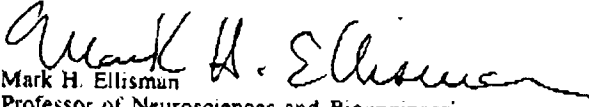
Dear Ken,

As a neuroscientist who has worked extensively with Fran Berman, Carl Kesselman, Rich Wolski, Jack Dongarra and others in the emerging grid community, I wholeheartedly endorse your timely effort to create a science and technology center for "GrADS" (Grid Application Development System). I am eager to continue to work with the CGrADS P.I.s and will be happy to contribute challenging test-bed projects requiring extensions of tools and concepts for both computational and data grids. I understand that the project's main goal is to prototype a dynamic grid-aware programming environment. I believe that the development of a program and execution environment that supports adaptive and performance-oriented computing is critical to the wide-spread use and effectiveness of the grid. The grid is crucial for achieving critical advancements of ongoing projects at the National Center for Microscopy and Imaging Research (NCMIR) as well as the broader multiscale goals of the Center for Research in Biological Structure (CRBS), an organized research unit at UCSD whose purpose it is to integrate research activities in biological structure and function from atoms to organisms largely through enabling technologies from computer science. Significant recent progress has been made by collaborating groups at NCMIR, CRBS, SDSC and NPACI partners in addressing technological challenges of multiscale biological systems, like the brain. These grid-enabled advances in biological data representation and understanding have led the National Center for Research Resources of the NIH to begin construction of an expanded infrastructure for computational and data grid project to build a Biomedical Imaging Research Network (BIRN). CRBS and SDSC will likely serve as the central coordinating site for this new NIH initiative and one can expect substantive interaction between BIRN and GrADS should your program also receive funding.

Another very attractive feature of your program is the strong linkage to some of the clear successes of the NSF's PACI program that can be expected to provide important leverage for the GrADS Science and Technology Center projects. By coordination with the two PACI's your group will have even more widespread impact on the community. The consortium of grid experts gathered in this GrADS project (which include yourself, Andrew Chien, Ken Kennedy, Dan Reed, Ian Foster, Carl Kesselman, Jack Dongarra, Rich Wolski, and others) are among the brightest and most forward looking I've met in this community. There is no doubt that with such a stellar collection of coworkers you will accomplish the task of developing a program and executing the environment envisioned for the grid with unparalleled professionalism and creativity.

Best wishes on your proposal effort. I look forward to an exciting collaboration.

Sincerely,


Mark H. Ellisman
Professor of Neurosciences and Bioengineering
Director, National Center for Microscopy and Imaging Research
Director, Center for Research in Biological Structure