

AD-A188 498

SUPPORT FOR CONCURRENT COMPUTING ENVIRONMENTS(U)
MASSACHUSETTS INST OF TECH CAMBRIDGE V KLEMA 87 OCT 87
AFOSR-TR-87-2038 AFOSR-86-0227

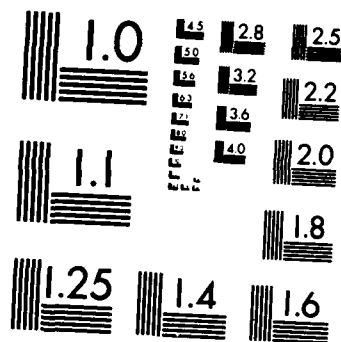
1/1

UNCLASSIFIED

F/G 12/6

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

2

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS DTIC FILE COPY	
2a. SECURITY CLASSIFICATION AUTHORITY ILB		3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution unlimited.	
SCHEDULE		5. MONITORING ORGANIZATION REPORT NUMBER(S) AFOSR-TR. 87-2038	
NUMBER(S)			
6a. NAME OF PERFORMING ORGANIZATION Massachusetts Inst of Tec		6b. OFFICE SYMBOL (If applicable)	
7a. NAME OF MONITORING ORGANIZATION AFOSR/NM			
6c. ADDRESS (City, State, and ZIP Code) Cambridge, MA		7b. ADDRESS (City, State, and ZIP Code) Bldg 40 Bolling AFB, DC 20332	
8a. NAME OF FUNDING / SPONSORING ORGANIZATION AFOSR		8b. OFFICE SYMBOL (If applicable) NM	
9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER AFOSR-86-0227			
8c. ADDRESS (City, State, and ZIP Code) Bldg 40 Bolling AFB, DC 20332		10. SOURCE OF FUNDING NUMBERS	
		PROGRAM ELEMENT NO. 61102F	PROJECT NO. 2917
		TASK NO. A5	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Support for Concurrent Computing Environments			
12. PERSONAL AUTHOR(S) Virginia Klema			
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 8/15/86 TO 8/15/87	
		14. DATE OF REPORT (Year, Month, Day) 87/10/07	
		15. PAGE COUNT 1	
16. SUPPLEMENTARY NOTATION			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	
19. ABSTRACT (Continue on reverse if necessary and identify by block number) grant This grant, under the URIP program, provided instrumentation equipment used to enhance research in concurrent computing. The equipment provided a network of concurrent computing machines. (Keywords: numerical algorithms; computational enhance) DTIC ELECTED S JAN 20 1988 D			
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified	
22a. NAME OF RESPONSIBLE INDIVIDUAL John Thomas, Maj, USAF		22b. TELEPHONE (Include Area Code) (202) 767-5025	
		22c. OFFICE SYMBOL AFOSR/NM	

DD FORM 1473, 84 MAR

83 APR edition may be used until exhausted.
All other editions are obsolete.

SECURITY CLASSIFICATION OF THIS PAGE

UNCLASSIFIED

AFOSR-TR. 87-2038

~~FINAL~~
~~PROGRESS~~ REPORT

October 7, 1987

"Support for Concurrent Computing Environments,"
University Research Instrumentation, AFOSR-86-0227,
Virginia Klema, Principal Investigator, MIT Concurrent Computing Group.

The instrumentation equipment provided by AFOSR-86-0227 is used primarily to enhance research supported by Air Force Grant 82-0210E, "Concurrent Computing: Numerical Algorithms and Some Applications," Principal Investigator, Virginia Klema. The equipment listed below fostered collaborative research with the faculty, research staff, and graduate students in the Computational Fluid Dynamics Laboratory at MIT, directed by Professor Earll Murman.

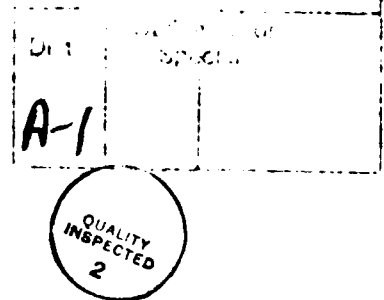
In particular, the equipment procured provides a networked set of concurrent computing machines, graphics and desk publishing capability, access to the MIT campus-wide network, and immediate host access to the ARPAnet. The Sun 3/260C is the hub of the networked machines and furthermore provides a front engine for the BBN Butterfly Development System (on loan from BBN) and remote login capability for the Intel cube.

In addition to the Sun 3/260C, the equipment obtained through this instrumentation grant includes

- 2 Sun 3/50 diskless nodes,
- an Imagen 2803 laser printer,
- Sun 280 MB disk,
- Sun ethernet board with Vme-MB adapter,
- Intel network hardware with software,
- Intel system 310/140 (an upgrade for the host for the Intel cube),
- networking supplies and cables to permit network installation.

We gratefully acknowledge our appreciation for this support for our research on numerical algorithms for scientific computation on concurrent computing systems. These systems presently include the 32 node Intel hypercube and the BBN Butterfly development system.

Collaborative research with the MIT Computational Fluid Dynamics Laboratory provides a rich set of research problems that include models for aircraft design, graphics applications, matrix computations, and the solution of partial differential equations with special structure. The Computational Fluid Dynamics Laboratory has a number of MicroVAX II workstations and an FX/ Alliant concurrent system.



END

FILMED

MARCH, 19 88

DTIC