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**PROJECT ADMINISTRATION DATA**

**OCA contact:** Ina R. Lashley 894-4820

**Sponsor technical contact**

DR. CAROLYN L. MCCREARY (205)844-6307

**AUBURN UNIVERSITY**

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

107 DUNSTAN HALL

AUBURN UNIVERSITY, AL 36849

**Security class (U,C,S,TS) :** U

**Defense priority rating :** N/A

**Equipment title vests with:** Sponsor

**Security class (U,C,S,TS) :** U

**Defense priority rating :** N/A

**Equipment title vests with:** Sponsor

**Administrative comments**

MOD 2 EXTENDS PERIOD OF PERFORMANCE TO 5/31/96 AND ADDS FINAL INCREMENT/THIRD YEAR FUNDING OF $27605. THIS SUBCONTRACT IS NOW FULLY FUNDED.
GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

NOTICE OF PROJECT CLOSEOUT

Closeout Notice Date 01/10/97

Project No. C-36-699__________ Center No. 10/24-6-R7566-0A0_

Project Director APPELBE W F__________ School/Lab COMPUTING_____

Sponsor AUBURN UNIVERSITY/AUBURN, ALABAMA________________________

Contract/Grant No. 92-CSE-420185-GT__________ Contract Entity GTRC

Prime Contract No. CCR-9203319________________

Title PSST: PARALLELIZING SCALABLE SOFTWARE TRANSFORMATIONS________________

Effective Completion Date 960531 (Performance) 960715 (Reports)

Closeout Actions Required: Date Y/N Submitted

Final Invoice or Copy of Final Invoice Y 960619
Final Report of Inventions and/or Subcontracts N
Government Property Inventory & Related Certificate N
Classified Material Certificate N
Release and Assignment Y 960703
Other N

Comments

Subproject Under Main Project No. ____________
Continues Project No. ____________

Distribution Required:

Project Director Y
Administrative Network Representative Y
GTRI Accounting/Grants and Contracts Y
Procurement/Supply Services Y
Research Property Management Y
Research Security Services N
Reports Coordinator (OCA) Y
GTRC Y
Project File Y
Other N

__________________________________________
ANNUAL PROGRESS REPORTS C-36-699

(July 1993 - July 1994)

During this period I supported one research assistant upon the grant (alternately Charles Hardnett and Srinivas Doddapaneni). The principal activities were support and enhancement of the PAT parallel programming toolkit, including:

- implementation of the Omega dependence test (Hardnett) in PAT
- implementation of the IVD (intervariable dependence) graph, and graph transformations in PAT, together with loop code transformations
- parallel code generation for the KSR-1

As a result of the grant, we demonstrated PAT at SuperComputing '93, in November in Portland and also published papers on the results including:


(July 1992 - July 1993)

During this period I supported one research assistant upon the grant (alternately Bala Lakshmanan and Chris Hutto). The principal activities were support and enhancement of the PAT parallel programming toolkit, including:

- completing the recoding of Pat's data structures from C to C++
- implementation of a timing tool and Motif GUI for PAT
- parallel code generation for the KSR-1

As a result of the grant, we demonstrated PAT at SuperComputing '92, in November in Minneapolis and also published papers on the results including:

In 1995 we release a new version of the tool Pat to Carolyn McCreary at Auburn. The release was built by Charles Hardnett. We also commenced implementation of a new compiler tool, GiL. GiL, "Gcc in Lisp" is a Scheme environment for running gcc, that enables the intermediate code of gcc to be extracted, manipulated, and transformed in a Lisp environment. The goal of gcc is to simplify prototyping advanced compiler optimizations and code generation algorithms.
This was the final year of this grant. On request from Auburn, we made a number of improvements to the PAT toolkit for their needs. In addition, several students were funded to work on our next generation toolkit: Gil (see http://www.cc.gatech.edu/GiL/ for a complete description).