PROJECT DESCRIPTION

PROJECT NUMBER: 01468

PROJECT TITLE: Systems and Data Enrichment for Traffic Safety

PRINCIPAL INVESTIGATORS:
David B. Brown
Computing and Information Division
Engineering Research Laboratory
The University of Alabama
Box 870290
Tuscaloosa, AL 35487-0290
(205) 348-6364
(205) 348-0219
brown@cs.ua.edu

Allen Parrish
Computer Science Department
P O Box 205290
Tuscaloosa, AL 35487
(205) 348-3749
(205) 348-0219 fax
parrish@cs.ua.edu

Brandon Dixon
Computer Science Department
P O Box 205290
Tuscaloosa, AL 35487
(205) 348-0597
(205) 348-0219 fax
dixon@cs.ua.edu

Scott Hawker
Computer Science Department
P O Box 205290
Tuscaloosa, AL 35487
(205) 348-1667
(205) 348-0219 fax
hawker@cs.ua.edu

PROJECT OBJECTIVE:
The objective of this project is to improve decision-making within the highway safety planning process, by providing upgraded services through the Critical Analysis Reporting Environment (CARE) software.

PROJECT ABSTRACT:
The CARE system has been implemented in North Carolina, and its potential is being demonstrated to all interested personnel at the current time. This program can be strengthened if certain aspects can be addressed and strengthened:

• the need to upgrade CARE BASE middleware,
• the inability of users to take full advantage of CARE capabilities,
• the inability of systems personnel to maintain and extend CARE,
• the lack of an effective location capabilities with the state, and
• the need to implement CARE WWW on the NC web site.

PROJECT TASK DESCRIPTIONS:
1. Middleware upgrades
2. User training
3. Systems personnel training
4. Pilot location software development
5. Web implementation

MILESTONES AND DATES:
• Oct 1, 2001 – Initiate user training, initiate systems analysis on middleware upgrade and pilot location software.
• Jan 1, 2002 – Continue user training, continue systems analyses, initiate development of middleware, and initiate design of pilot location software.
• Apr 1, 200 – Implement middleware in beta test configuration, implement pilot software development, initiate Web implementation and begin systems personnel training.
• Jul 1, 2002 – Continue training, implement and pilot location software, implement Web use.
• Aug 15, 2002 – Begin preparing documentation.
• Sep 30, 2002 – Conclude project.

TOTAL BUDGET:
One-year project: North Carolina’s Governor’s Highway Safety Program $105,421

STUDENT INVOLVEMENT:
No direct involvement of students is anticipated.

RELATIONSHIP TO OTHER RESEARCH PROJECTS:
This project is a continuation and expansion of UTCA project 99464, “A CARE Interpreter for North Carolina,” and UTCA project 01463, “Maintenance & Extensions of the Critical Analysis Reporting Environment (CARE) for North Carolina” conducted by Dr. Brown. It is also similar to several other efforts conducted by the PI for other state and local transportation agencies.

TECHNOLOGY TRANSFER ACTIVITIES:
A major component of this project is an on-going training effort, to acquaint potential users with CARE’s capabilities, and to offer advanced training to existing users.

POTENTIAL BENEFITS OF THE PROJECT:
This project offers incremental improvements to the capability to conduct safety studies and to select safety countermeasures. In effect, the project allows additional optimization of safety funding, and will consequently decrease crashes, injuries and fatalities.

TRB KEYWORDS:
CARE, safety programs, optimization, information mining, crash reduction.