

A Visible Success Story

NATIONAL GUARD COUNTERDRUG MISSION SUPPORT MANAGEMENT SYSTEM

One of Visible's most successful projects to date involved developing a Management Information System and Data Warehouse for the National Guard.

Client:

**US Department of Defense
National Guard Bureau
Counterdrug Directorate
Alexandria, VA**

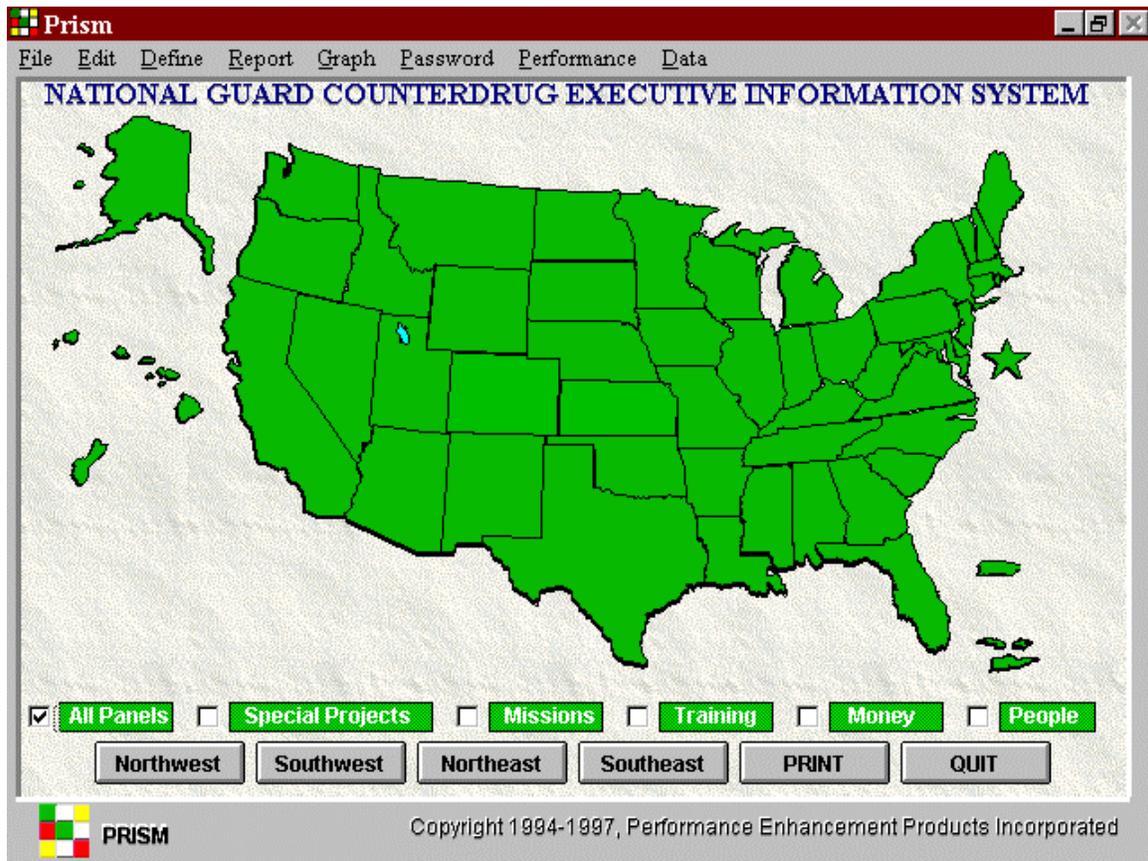
Counterdrug Mission Support System:

The National Guard is responsible for supporting Federal, State and Local Law Enforcement Agencies in their drug interdiction, eradication and drug demand reduction (education) missions. The Counterdrug Management Information System we helped develop provides multi-dimensional mission planning, execution and evaluation functions as well as ongoing resource and system management capabilities. This day-to-day automated support for the counterdrug activities (missions) in the National Guard offices in fifty-four states and territories is the key purpose for the system.

Data captured while conducting counterdrug mission support activities at the state level is periodically summarized as performance measures for ongoing evaluation of mission and program effectiveness. The measures are reviewed and then automatically and electronically reported to the central National Guard Bureau, in the Washington, DC area, where they are used to populate a data warehouse.

The National Guard Counterdrug data warehouse provides the basis for both an Executive Information System (EIS) and a Decision Support System (DSS). An example of the EIS user interface is in the figure below. The graphic interface to the EIS changes colors to provide executives with an "at a glance" view of program effectiveness (green = effective; yellow = less than effective; red = poor performance; gray = no report this period). The thresholds for the measures are set, and can be easily changed by, the National Guard Counterdrug staff.

In addition to using the data warehouse for management of their counterdrug program, the National Guard uses the data warehouse as the source for answering ad hoc queries from state governors, the Defense Department, and the US Congress.



Results:

Both Air Force and Army personnel from National Guard counterdrug offices in multiple states and territories and from all levels of the National Guard Bureau participated in requirements definition and analysis, business modeling, and application design sessions. Active end-user involvement is a keystone of the *Visible* methodology and ensured that the National Guard counterdrug systems exactly meet requirements. Using a state-of-the-art technology infrastructure and a quality rapid application development (Q-RAD) methodology, a fully functional, quality information system was delivered ahead of schedule and under budget.

Deliverables	Timetable
Mission Needs Statement	November - December, 1994
Functional Definition	January 1995
Business Model	January - April, 1995
Screen Prototype	May-June, 1995
Functional Prototype (Alpha)	July-October, 1995
BETA Release	November, 1995 - February, 1996
Operational Release	January - May, 1996
EIS/DSS Implementation	May - December, 1996

Strategic Partnership:

For this project, *Visible* teamed with a team from AC Engineering Inc. in Huntsville, Alabama.

AC Engineering, a division of AC Inc. is located in Huntsville, Alabama, and provides a wide range of engineering services, program management support and information technology services to both government and commercial customers. AC Engineering's, Information Technology Group specializes in designing and implementing enterprise information systems for both WEB and client – server platforms. The methodology employed by the Information Technology Group focuses on applying collaborative technology in order to facilitate maximum user input into system requirements and design. AC Engineering provides a full spectrum of support services and high technology development within the Information Mission Area (IMA) disciplines of automation, communications, visual information, and records management.

We are helping AC Engineering become a world-class software developer. We use business reengineering and facilitation techniques to help them improve their management and operational practices so that they can consistently produce quality information systems for their customers. We also provide training and coaching to help them implement and assimilate our Enterprise Engineering methodology and effectively use our own enterprise modeling tool, *Visible Advantage*™.

In order to provide a superior software development infrastructure, three leading-edge commercial technologies have been integrated: a groupware-based collaboration technology tool for requirements gathering, our own modeling tool that provides full life-cycle enterprise planning, modeling, designing and repository capabilities, and a fourth-generation, graphical user interface-based application development tool for multi-platform, object-oriented application development.

The AC Engineering/*Visible* team has been delighting its clients, like the National Guard, with our business-driven and customer-focused information system development paradigm that we call Quality Rapid Application Development (QRAD). An indication of the thoroughness and quality of the software development methodology is that the data model and database that were developed for the National Guard Counterdrug Data Warehouse are also the basis for the Department of Defense Domestic Counterdrug Data Warehouse. In addition, using an architecture model has allowed us to recently re-host and web-enable all the systems. The continued success of this project is a direct result of integrating skilled, dedicated people with quality processes and supportive technology.

Our approach for helping organizations become world-class software developers is described in the *Visible Solution*, "*Software Engineering Process Improvement*."

Other related papers include "*Enterprise Engineering*" and "*Data Warehouse Architecture*"

Visible Solutions, *Visible Success Stories*, *Visible Viewpoints*, and other *Visible* white papers are available from our web site (<http://www.visible.com>).

For more information concerning this *Visible Success Story* please contact:

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About Visible

Visible Systems Corporation (Visible) is a world leader in software engineering solutions, tools, training, and consulting services. Founded in 1981, Visible has consistently pioneered products and practices for efficiently and effectively engineering mission-critical systems.

Visible's modeling and design tools are designed for software engineers, analysts, and designers interested in taking an architected approach to developing quality software solutions quickly.

Visible brings much greater value to customers by providing not only exceptional, proven software development products, but also skills improvement training, and on-site consulting. Visible helps software developers successfully support the changing needs of the enterprise, and helps the enterprise fully leverage its investment in information systems and technology.

Visible, a member of the Software Productivity Consortium, was founded to improve the effectiveness and efficiency of software development worldwide. Visible helps clients assimilate a rigorous and repeatable, disciplined, tool-supported Enterprise Engineering methodology for software component engineering through training, coaching, and mentoring.

- *Staff skills and productivity improve so that better software is developed faster.*
- *Standards are established and enforced.*
- *Metrics are identified and utilized.*
- *Appropriate tool sets are acquired and used.*
- *Software development quality becomes consistent and repeatable.*
- *Changing requirements are met rapidly and well.*
- *Maintenance costs (typically, 70% to 80% of software development budgets) are reduced significantly, often as much as 75%.*

Visible helps its clients become world-class software developers. With our assistance, clients improve processes and procedures until they are able to consistently develop quality information systems that exactly meet their own and their customers' critical information needs.