

Critical Situation Management, Inc.

*The best solutions for the worst situations*

Homeland Security  
Technology

# The New Security Landscape Requires Fast and Intelligent Decisions



Emergencies can be too complex and damaging to rely on paper manuals for emergency response



CSM offers software solutions to  
better *manage* emergencies –

**4command**

# 4command™ Crisis Management System

## INPUT

### Knowledge Bases

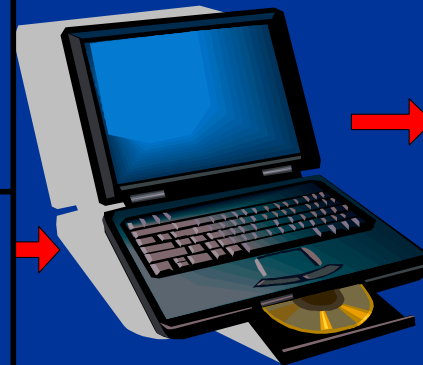
- Terrorist threats
- Fire, explosion
- Workforce violence
- Unauthorized entry
- Chemical releases
- Biological hazards
- Hostage situation
- Best practices

### Sensors & Visualization

- GIS/AutoCad/Video
- Bio/motion/heat sensors
- Real time weather
- Dynamic facility mapping
- Dispersion modeling
- Other sensors

### Database Connectivity

- Emergency specific information
- Protective equipment requirements
- Chemical properties
- Biomedical databases
- Notification lists
- Assets and ER resources



4command™  
Expert System

4command™  
Expert System

## OUTPUT

### Instant ER recommendations

- Real-time, quick response actions
- Total team coordination
- Common platform for all responders
- Scenario-driven

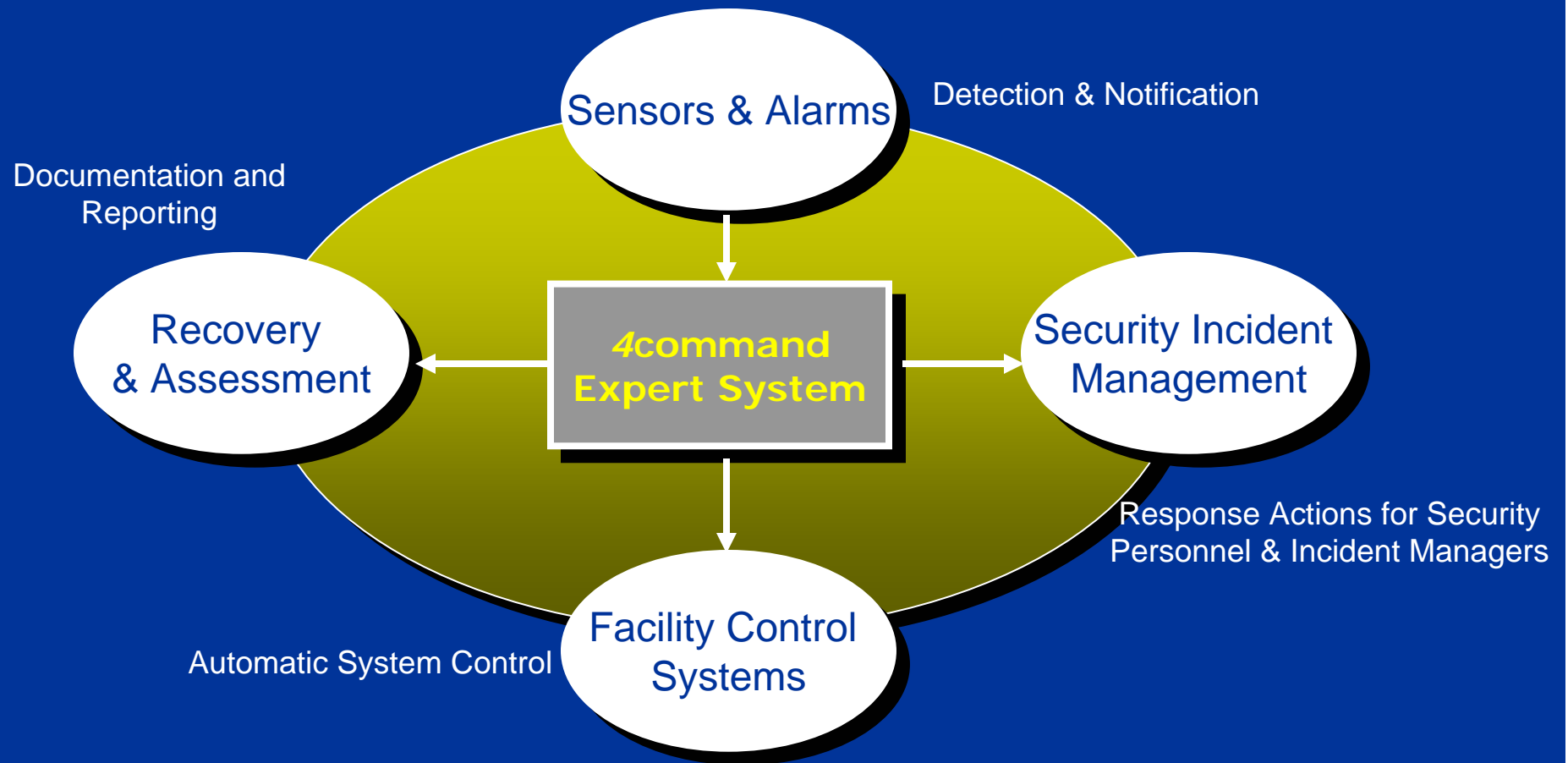
### Tracking and Documentation

- Incident log
- Time stamped actions
- Post emergency analysis
- Immediate internal and external reporting

### Computer Based Training

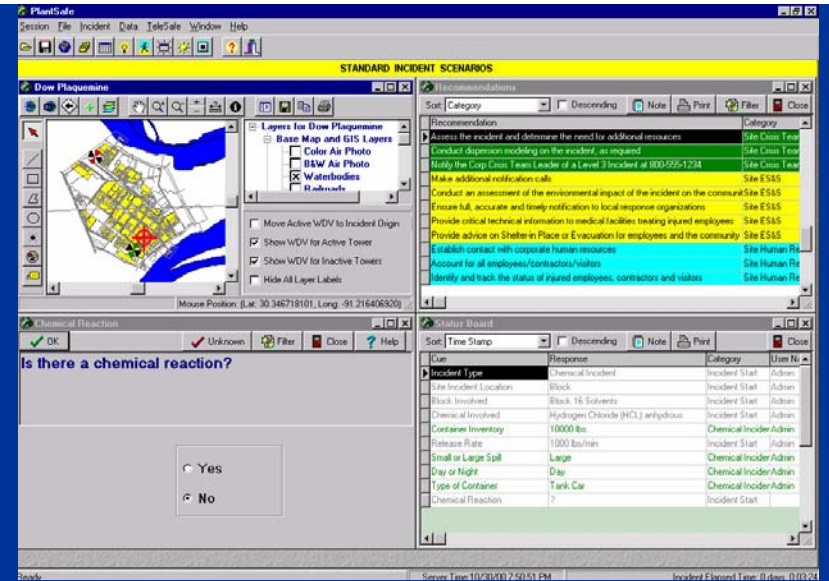
- Simulated training exercises
- Self-directed
- Monitored and tracked

# Integrated Security Incident Management System



*Integrated Security Incident Management system - driven by a centralized Expert System framework*

# 4command Credibility



- Based on US Navy damage control technology
- **4command** has been “battle-tested” in real emergencies since 1996
- Co-developed with leading chemical companies
- Custom Knowledge Bases can support any situation
- Installed at the world’s largest chemical companies

# 4command Customers



BASF



Living.  
Improved daily.



# 4command Value Proposition

- Implements 'best-practices' for emergency response and crisis management
- Preserves asset utilization through improved mitigation and response time
- Reduces personnel training costs through simulation-based training & exercises
- Captures critical expertise and preserves knowledge

# 4command Value Proposition

- Supports continuous improvement through gap analysis and lessons learned
- Facilitates transition to recovery by tracking and documenting responses
- Enhances organizational security, image and confidence

*4command*  
Functionality

PlantSafe  
Session File Incident Data Window Help

Unauthorized Entry Building 23

Multi-tiered action information and recommendations

Visualization via GIS imagery, mapping, CAD/CAM diagrams

Status board documents and tracks critical activities

Security Incident

OK Unknown Filter Close Help

Select the Security Incident:

Unauthorized Entry  
Anthrax Threat  
Terrorism  
Civil Disturbance  
Bomb Threat

Incident cue sequence

Recommendations

Sort: Category Descending Note Filter Close

Recommendation	Category
Direct all resources in support of the incident, as required	Site Incident C
Prepare an incident report	Site Incident C
See that equipment is returned to service or tagged out of service	Site Incident C
Inform plant Fire Chief of equipment taken out of service	Site Incident C
Maintain Personnel Accountability System for the entire incident	Site Incident C
Establish communication with Boiler Room, Captains and Team	Site Incident C
Direct Electrician to disconnect power to the affected area, as necessary	Site Incident C
Prepare an incident report	Site Incident C
See that equipment is returned to service or tagged out of service	Site Incident C
Inform plant Fire Chief of equipment taken out of service	Site Incident C
Maintain Personnel Accountability System for the entire incident	Site Incident C
Establish communication with Boiler Room, Captains and Team	Site Incident C
Serve as point of contact with all concerned parties	Site Incident C
Don IC vest, upon arrival of Fire Trailer or	Site Incident C

Status Board

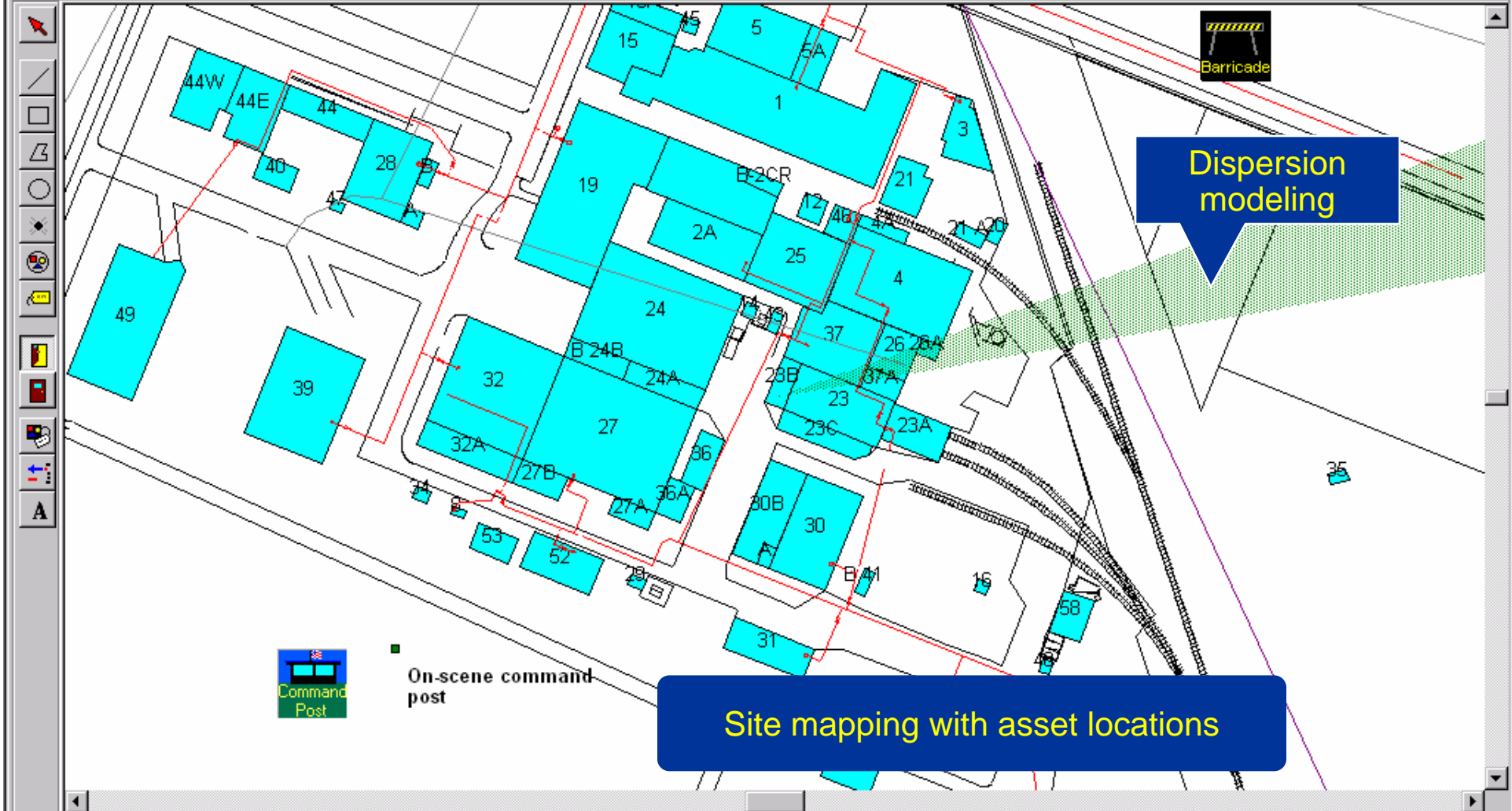
Sort: Cue Sequence Descending Note Print Close

Cue	Response	Name
Command Post Location	West Gate	
Incident Commander	John Williams	
Area Manager	Milt Stiller	
Crisis Team Leader	Unknown	
Crisis Team Coordinator	Unknown	
Public Relations	Unknown	
E&HS	Unknown	
Legal	Unknown	
Security Incident	Unauthorized Entry	Admin
Incident Location Type	Building	Admin
Building Involved	23	Admin
Site Injuries?	?	

Server Time: 4/9/02 8:25:25 PM Incident Elapsed Time: 0 days, 0:02:33

Start Microsoft PowerPoint - [cs... PlantSafe Server Service Z Z2 PlantSafe Client 8:25 PM

Vet Stadium Level 3



Dispersion modeling

Site mapping with asset locations

Mouse Position: (Lat: 42.389577422, Long: -88.291687769) Distance:

Server Time: 3/4/02 4:30:33 PM

Incident Elapsed Time: 0 days, 0:07:47

PlantSafe  
 Session File Incident Data Window Help

Recommendations

Sort: Category Descending Note Print Filter

Action recommendations and information to each responder – from single actions to entire procedures

Recommendation	Category	Priority	Status	Assigned To	Due Date	Time
Ensure support and provide counseling for employees and their families	Site Human Resources	High			3/4/02 4:22:43 PM	
Assemble all necessary HR resources	Site Human Resources	Immediate			3/4/02 4:22:43 PM	
Establish a location for employees' families to congregate	Site Human Resources	Immediate			3/4/02 4:22:43 PM	
Arrange alternate pay system with Corporate, if required	Site Human Resources	Medium			3/4/02 4:22:43 PM	
Arrange financial assistance to families, as needed	Site Human Resources	Immediate			3/4/02 4:22:43 PM	
Identify HR skills/expertise required	Site Human Resources	Immediate			3/4/02 4:22:43 PM	
Evaluate the life safety factors of the incident	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
Inform plant Fire Chief of equipment taken out of service	Site Incident Commander	High			3/4/02 4:22:43 PM	
See that equipment is returned to service or tagged out of service	Site Incident Commander	High			3/4/02 4:22:43 PM	
When situation is over, notify plant personnel of "All Clear"	Site Incident Commander	Medium			3/4/02 4:22:43 PM	
Establish communication with the Boiler Room, Captains and Emergency Services	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
Serve as point of contact with all concerned parties	Site Incident Commander	High			3/4/02 4:22:43 PM	
Don the Incident Commander vest, upon arrival of the Fire Truck	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
Maintain Personnel Accountability System for the entire incident	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
Prepare an incident report	Site Incident Commander	Medium	Ordered	Admin	3/4/02 4:24:21 PM	
Send person to boiler room office to relay communications	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
Direct Electrician to disconnect power to the affected area, as necessary	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
Direct utility person in support role for the incident, as required	Site Incident Commander	High			3/4/02 4:22:43 PM	
Notify plant management	Site Incident Commander	Immediate			3/4/02 4:22:43 PM	
When situation is under control, secure the area for investigation	Site Incident Commander	Medium			3/4/02 4:22:43 PM	
Provide information to the Site Crisis Team on legal issues	Site Legal Liaison	High			3/4/02 4:22:43 PM	
Identify potential legal issues and obtain advice from Corporate Legal	Site Legal Liaison	Immediate			3/4/02 4:22:43 PM	
Report to the crisis center and coordinate with Corporate Legal	Site Legal Liaison	Immediate			3/4/02 4:22:43 PM	
Notify neighbors of the situation, if required	Site Public Relations	Immediate			3/4/02 4:22:43 PM	
Communicate to employees, public officials and other stakeholders	Site Public Relations	High	Ordered	Admin	3/4/02 4:23:59 PM	
Coordinate Corporate travel to the site through Corporate Communications	Site Public Relations	High			3/4/02 4:22:43 PM	
Submit draft media statements for review by Corporate Communications	Site Public Relations	Immediate	Disagree	Admin	3/4/02 4:24:13 PM	
Establish a Media Center at a convenient, controlled location	Site Public Relations	Immediate	In Progress	Admin	3/4/02 4:23:54 PM	
Coordinate with local media for briefings, interviews and releases	Site Public Relations	Immediate			3/4/02 4:22:43 PM	

Status tracking

Server Time: 3/4/02 4:25:34 PM Incident Elapsed Time: 0 days, 0:02:48

Start | Inbox - Micros... | Microsoft Pow... | PlantSafe Ser... | Z2 | PlantSafe ... | 4:25 PM



**Bomb Threat**

Sort: Category  Descending Note Print Filter Close Help

Recommendation	Category	Indicator	Implement	Override	Priority	User	Time
Document search and evacuation using page 3 of Bomb Threat Checklist	Ringwood Facility Manager				High		5/1/02 12:20:25 PM
Contact the local radio station and relay information about the emergency	Ringwood Facility Manager				Immediate		5/1/02 12:20:19 PM
Notify the LEPC, SERC and NRC of the emergency							5/1/02 12:20:19 PM
Request appropriate personnel to respond to the emergency							5/1/02 12:20:25 PM
Use the plant phone system and plan to contact the local radio station							5/1/02 12:20:25 PM
Instruct guard, boiler room operator or other personnel to contact the local radio station							5/1/02 12:20:25 PM
Request local police and fire to send personnel to the plant							5/1/02 12:20:25 PM
Arrange for notification of all facility managers							5/1/02 12:20:25 PM
Maintain coordination with appropriate agencies							5/1/02 12:19:23 PM
Provide technical info and support to appropriate agencies							M
test recommendation							M
Provide information to the Crisis Team							M
Ensure all personnel are notified of the emergency							M
Alert community using the HI/LO tone							M
Assemble the Crisis Management Team							M
Activate appropriate internal alarms and sirens							M
If assistance is needed, notify appropriate agencies							M
If emergency could have impact outside the plant, notify appropriate agencies							M
Complete a spill/leak incident report as required							M
If spill is from a rupture disc failure, complete a rupture disc failure report							M
If spill exceeds a hazardous material release report							M
If spill exceeds a hazardous material release report							M
If significant hazardous substance release occurs, complete a hazardous substance release report							M
Maintain record of release for investigation							M
For significant release outside the process area, complete a release report							M
Determine level of emergency if Incident							M
Alert employees with Thorn system following the emergency							M
Establish contact with Corporate Human Resources							M
Identify HR skills/expertise required							M
Assemble all necessary HR resources	Site Human Resources				Immediate		5/1/02 12:19:23 PM

**View/Edit Action** X

**Action**

Contact the local radio station and relay information about the emergency

**Category**  
Ringwood Facility Manager

**Priority**  
Immediate

**Annotation**

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**Implementation**  
Reset

**Override**  
Reset

**Note**

**Timer**

Start: 5/ 1/02 12:20:19 PM

61%  
11 minutes 39 seconds left

Expires: 5/ 1/02

**Documents**

OK  
X Cancel

Real-time critical information to all crisis team members



Chlorine Release

Sort: Time Stamp  Descending Refresh Print Filter Close Help

Incident	User	Window	Action	Time	Message
Chlorine Release	Server		Recommendation Posted	3/15/02 2:07:10 PM	The recommendation RH Waste Disposal was posted on the recommendation board
Chlorine Release	Server		Cue Response Posted	3/15/02 2:07:11 PM	The cue "Chemical Emergency" was updated with a response of Community Impact
Chlorine Release	Server		Cue Posted	3/15/02 2:07:12 PM	
Chlorine Release	Admin	Cue	Cue Presented	3/15/02 2:08:59 PM	
Chlorine Release	Server		Cue Response Posted	3/15/02 2:09:04 PM	
Chlorine Release	Server		Cue Posted	3/15/02 2:09:05 PM	
Chlorine Release	Admin	Cue	Cue Presented	3/15/02 2:10:56 PM	
Chlorine Release	Server		Cue Response Posted	3/15/02 2:10:58 PM	The cue "Inventory LBS" was updated with a response of TS 45
Chlorine Release	Server		Cue Posted	3/15/02 2:10:59 PM	The cue "Select Chemical" was posted on the status board.
Chlorine Release	Admin	Cue	Cue Presented	3/15/02 2:13:12 PM	The cue "Inventory LBS" was presented.
Chlorine Release	Admin	Cue	Cue Presented	3/15/02 2:13:14 PM	The cue "Gas Release Rate" was presented.
Chlorine Release	Admin	Cue	Cue Presented	3/15/02 2:13:15 PM	The cue "Small Large Spill" was presented.
Chlorine Release	Server		Recommendation Area Posted	3/15/02 2:13:17 PM	The recommendation area "c1017Spill" was posted.
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:17 PM	The recommendation RecMaterial02a was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:17 PM	The recommendation RecMaterial03a was posted on the recommendation board
Chlorine Release	Admin	Cue	Cue Presented	3/15/02 2:13:18 PM	The cue "Day or Night" was presented.
Chlorine Release	Server		Cue Response Posted	3/15/02 2:13:18 PM	The cue "Select Chemical" was updated with a response of Chlorine
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:18 PM	The recommendation RecMaterial07a was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:18 PM	The recommendation Pers Protec01 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:18 PM	The recommendation MSDS Chlorine was posted on the recommendation board
Chlorine Release	Server		Recommendation Area Posted	3/15/02 2:13:19 PM	The recommendation area "124SpillLeak" was posted.
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak01 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak17 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak12 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak10 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak09 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak03 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak11 was posted on the recommendation board
Chlorine Release	Server		Recommendation Posted	3/15/02 2:13:19 PM	The recommendation ERSpillLeak27 was posted on the recommendation board

Incident log records and documents all activities by responder and activity

# Results of FBI Evaluation

- “...**4command** is the most comprehensive solution for solving a critical problem facing first responders and security personnel – how to access key information for decision-making during the first moments of an emergency response.”
- “...We would like to see this in use by any organization with responsibility for responding to a terrorist incident.”

FBI Hazardous Materials  
Response Unit leader

# Critical Situation Management Inc.

James K Cassidy

610 617-9988

[Jcassidy@csmsolutions.com](mailto:Jcassidy@csmsolutions.com)

Three Bala Plaza East, Suite 102

Bala Cynwyd, PA 19004

[www.csmsolutions.com](http://www.csmsolutions.com)