

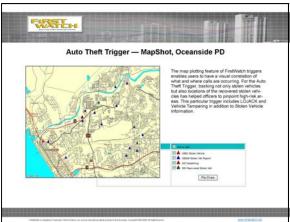
FirstWatch Law Enforcement Dashboard & Trigger Examples

The following FirstWatch Dashboard & Trigger examples are based on actual usage, from agencies that have deployed FirstWatch across North America.

Law Enforcement Dashboards



Crime Data Surveillance & Automated Alerting



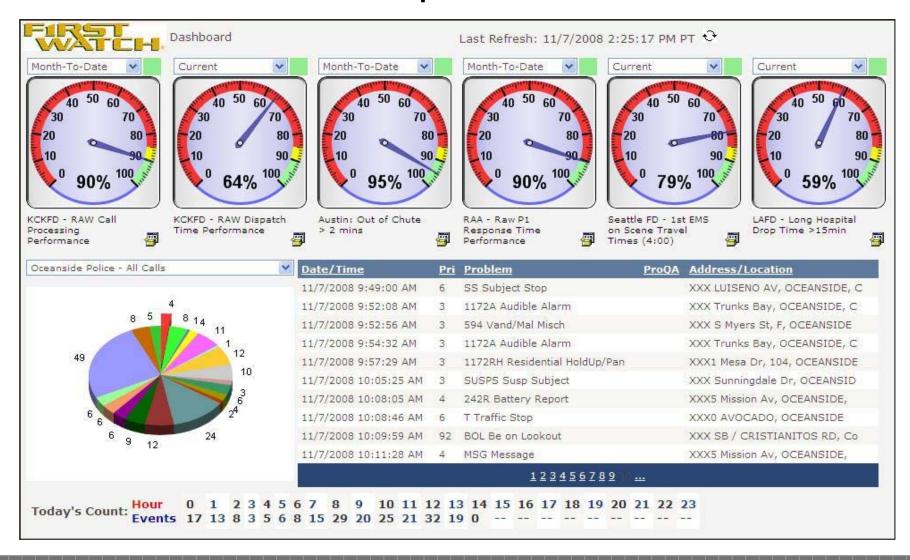
Situational Awareness & Homeland Security



For more information and to schedule an online demonstration, please contact: Glenn Butler 760-943-9123 ext 258 or send email to: gbutler@FirstWatch.net

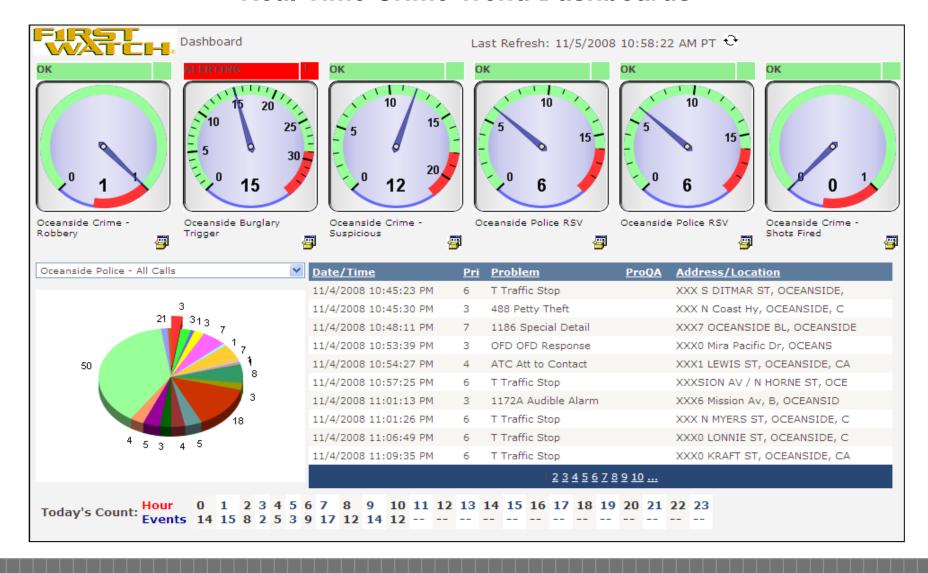


Performance & Operational Dashboards





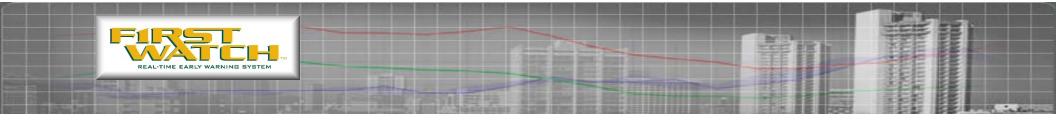
Real-Time Crime Trend Dashboards





Law Enforcement Trigger Examples

- **≻RAW Performance Triggers/Time Compliance Analysis:**
 - •<u>Dispatch Time</u> used to monitor the time it takes dispatchers to dispatch the initial call against a time standard.
 - Enroute Time used to monitor the time it takes units to respond once they've been assigned/dispatched to an incident.
 - •Response Time used to monitor the response time for an incident. There are many variables to start and stop clock times.
 - •<u>Time on Task</u> used to monitor the total time a unit is on a call from time assigned/dispatched to the time the go is available or the call is cleared.
- ➤ Sector Calls (A, B, C, D)
- ➤ Demand Analysis
- ➤ Operational, Command Staff or Supervisory Sentinel



Law Enforcement Trigger Examples

Sentinel Event Detection Triggers:

- ➤ Hot Prowl Sentinel
- ➤ Robbery Sentinel
- ➤ Shots Fired
- ➤ Bomb/Explosion Sentinel Free Text
- ➤ High Profile Location Sentinel
- ➤ Homeland Security Sentinel
- ➤ Major Incident Sentinel (>X units assigned)
- ➤ Amber Alert
- ➤ Officer Involved
- ➤ Shooting/Stabbing/Death
- ➤ Home Invasion Geo-Fence Sentinel
- ➤ Pediatric Drowning

Trend/Pattern Analysis:

- ➤BMV (Burglary in Motor Vehicle) Geo-Cluster
- ➤ Auto Theft Analysis
- **≻CAPERS** Analysis
- ➤ General Nuisance Analysis
- ➤ Sex Crimes Analysis
- ➤ Vice Analysis
- ➤ Suspicious Activity Analysis

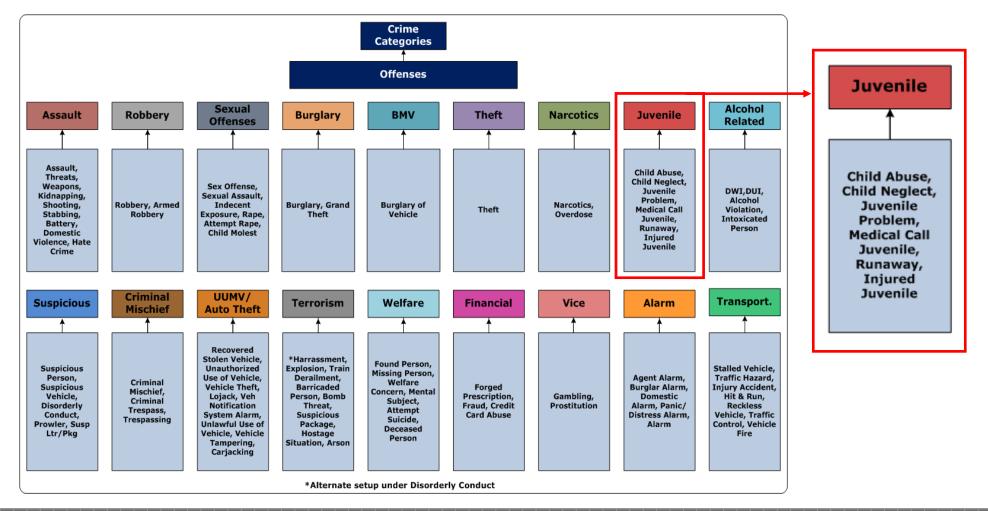
Situational Awareness Triggers:

- ➤ All Calls
- ➤ Situational Awareness
- ➤ Auto Theft
- **≻**Fights
- **≻**Prowler
- **≻**Robbery
- ➤ Sex Crimes
- ➤ Suspicious Activity
- **≻**Transportation
- ➤ High Profile Location Situational Awareness
- ➤ Mass Casualty Incident (MCI) > X units on scene
- ➤ Public Order
- ➤ Changeable Address Search
- ➤ Address Alert
- ➤ Free Text—Hot Alert
- ➤ Free Text—Watch List
- ➤ Free Text—Vehicle Description
- ➤ Free Text—Partial Plate



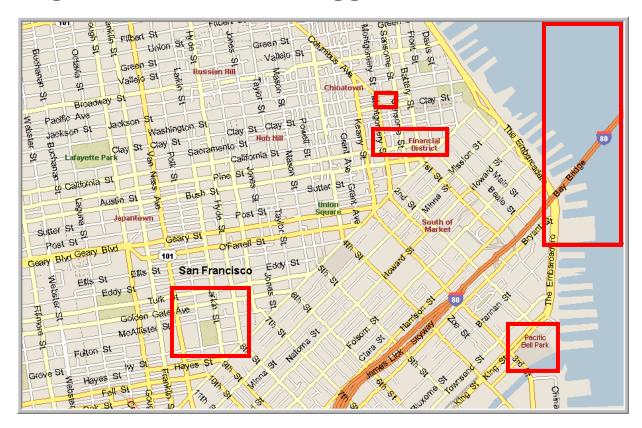
Crime Categories — Can match with Trigger definitions

Categorization developed by existing clients. The data relates to Crime Analysis Reporting under FBI Uniform Crime Reporting and other requirements. Categories and offenses will vary from client to client.





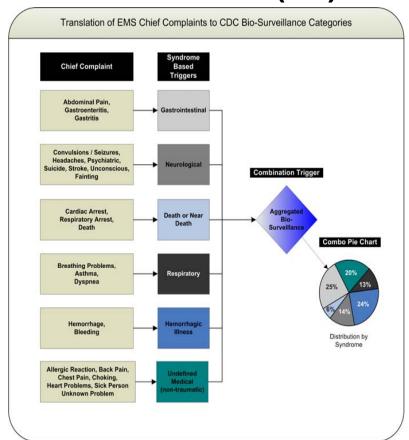
High Profile Location Triggers—San Francisco



The City of San Francisco includes a number of highly recognizable landmarks known throughout the world as well as other landmarks that are integral parts of the government and economy. The Golden Gate Bridge, Trans America Pyramid, United Nations Building, Federal Courthouse and the Financial District are a few of the monitored areas. Using FirstWatch Geo-spatial Analysis, officials are able to place a geo-fence (or perimeter) around specific landmarks with the intent of being notified of significant events or activities around any of the designated landmarks or districts. This Trigger provides a situational awareness perspective to rapidly notify officials of events occurring within any of their high profile zones.



Bioterrorism (BT)



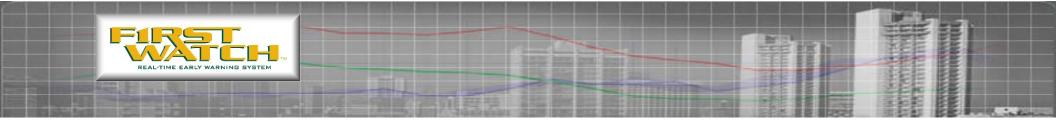
Using Public Safety 9-1-1 call data for bioterrorism (BT) and health surveillance has created a new awareness of the value of emergency pre-hospital data. FirstWatch, a pioneer in Public Safety 9-1-1 call data analysis, has been actively monitoring real-time 9-1-1 call data since 1999. Now processing more than 10,000 real-time Public Safety encounters daily from systems throughout North America, FirstWatch is the largest real-time network of its kind.

Public Health Officials recognize that information from multiple data sources is required to develop the best assessment of a community's overall health. Public Safety 9-1-1 data brings a number of distinct benefits providing a very unique and timely perspective. Typically the geographic area covered by a 9-1-1 system is very large, many times comprised of a multi-city or county area. Other data sources, such as hospital emergency department data, represent a much smaller geographic footprint. Additionally, 9-1-1 data is processed in a very timely manner, typically within one or two minutes. Once processed, the 9-1-1 information includes not only specific chief complaint criteria, but also includes a geographically specific location which can be used to provide a precise location for the patient. The combination of a large service area, timeliness of information, and geographically validated location data (via FirstWatch) offers health officials a valuable situational awareness tool.

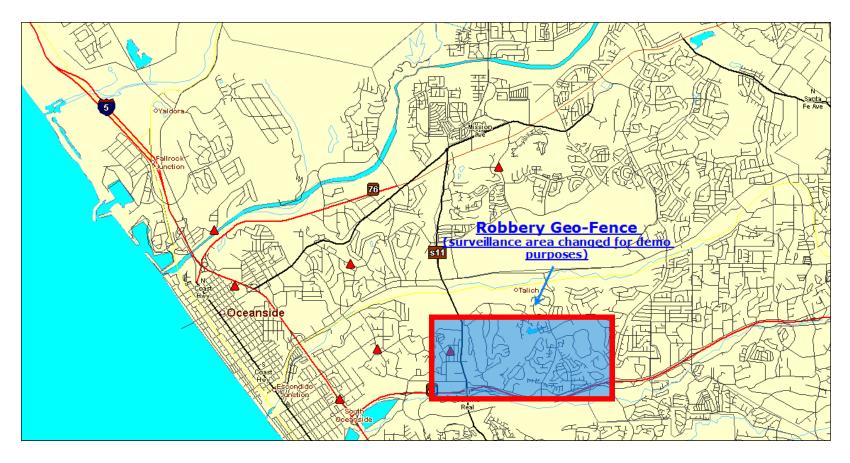
Patient information collected during a 9-1-1 call can vary from agency to agency. However, users of the Priority Dispatch ProQA, an automated expert algorithm system software, can gather a variety of health data including age, sex and acuity to categorize a patient into almost **300 condition determinants**. ProQA provides additional value by <u>ensuring consistency in</u> the call screening process where each incident is processed the same way.



FirstWatch is the only organization integrating real-time Command and Dispatch (CAD) data with ProQA data in a seamless interface. The system also includes supplemental screening tools designed to screen for exposure to Chemical, Biological, Radiological or Nuclear exposure (CBRN) and symptoms associated with severe respiratory syndrome, including information relating to recent travel to high risk locations. Public Safety and 9-1-1 teams are on the front lines of health emergencies, and FirstWatch provides real-time analysis and alerting.



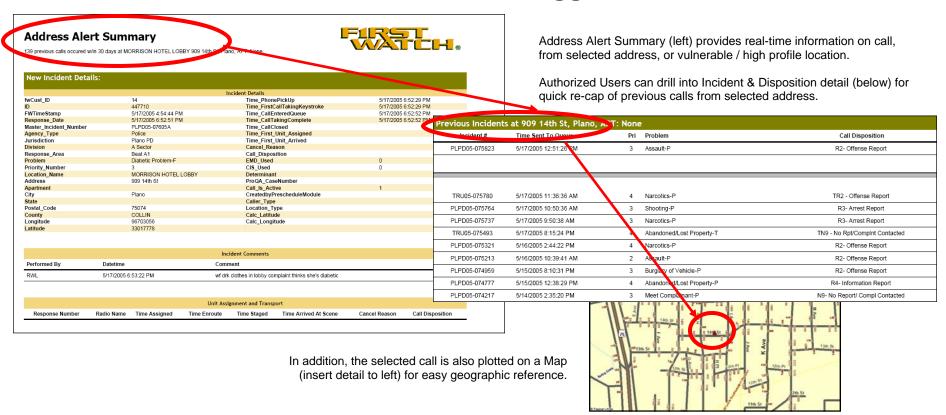
Geo-Fence Sentinel Trigger – Oceanside Police



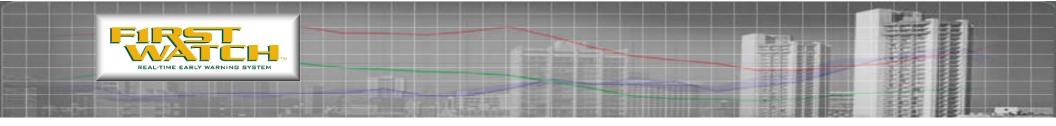
Oceanside Police Detectives experienced a rash of robberies, all within a particular region of the city. They asked FirstWatch if they could be notified whenever a robbery is reported within the defined hot-zone. Using FirstWatch, the task force drew a "virtual" geographic fence around the focus area and setup a Trigger to immediately and automatically notify key task force members anytime a robbery report is received from within the identified hot-zone.



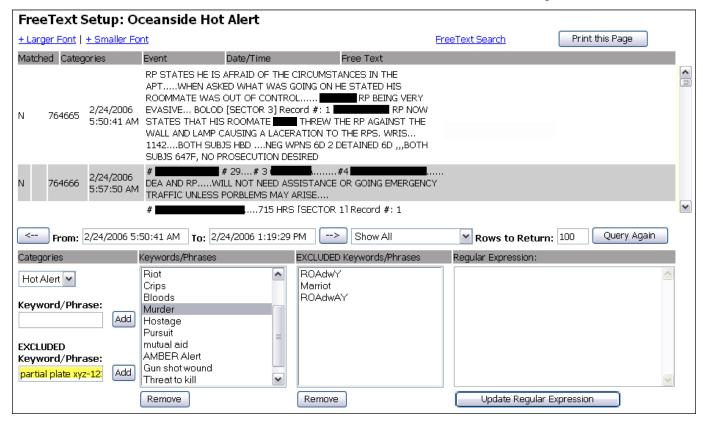
Address Alert Triggers



First responders are confronted with dangerous situations daily. It is common practice for responders to begin assessing a situation and developing an action plan, based on available information, while they are en-route to a scene. The FirstWatch Address Alert is designed to provide responders with real-time background information on selected addresses before they arrive. A routine response to an address with a patient experiencing chest pain may have been the site of a meth-lab bust, assault with a knife or other serious situation just hours, days or weeks earlier. This Trigger provides responders with information to protect themselves, request backup (or additional support) and ultimately allow for safer and better preparation on scene. Many agencies have the ability to review premise history. However, the process is manual, time intensive and requires busy dispatch personnel to make timely decisions on information that should be shared/communicated with the responding units en-route. FirstWatch automatically scans for address history without taking the dispatcher away from other duties.



Police Hot Alert — Free Text Analysis



FirstWatch provides Oceanside crime analysts with a free-text sentinel tool to help them quickly receive alerts on key words or phrases contained in notes/comments received during the call-taking process. The text tool provides investigators with a dynamic way to target specific events and situations (on-the-fly) that are not normally classified during the initial report. Searching through notes/comments from an incident, the Trigger can automatically look for information relating to gang activity, partial license plates, information on wanted vehicles, amber alerts, pursuits and more. One of the key real-time benefits of the FirstWatch Free Text Trigger is that investigators can deploy or update new analysis/surveillance criteria in a matter of minutes.



Police Call Response Time Trigger — Plano PD

Plano PD Call Response Times Current Call Information

Calls displayed represent active or performed calls between the hours of 3/30/2008 9:18:43 PM and 3/31/2008 1:18:43 PM.

Data and Report from the FirstWatchTM Internet Server

Time Sent To Queue	Problem	<u>Pri</u>	Response Area	<u>Unit</u>	Asgn2Arr	Asgn2C	R2C	Call Disposition
3/30/2008 9:21:51 PM	Suspicious Person-P	2	Beat D5	4C	00:08:59	00:45:33	00:50:21	N9- No Report/ Compl Contacted
3/30/2008 9:21:51 PM	Suspicious Person-P	2	Beat D5	3C3	00:08:59	00:00:29	00:50:21	N9- No Report/ Compl Contacted
3/30/2008 9:21:51 PM	Suspicious Person-P	2	Beat D5	3C2	00:08:59	00:37:31	00:50:21	N9- No Report/ Compl Contacted
3/30/2008 9:22:19 PM	Traffic Stop-P	2	Beat C5	3C	00:00:00	00:10:31	00:10:31	CT - Clear Traffic Stop
3/30/2008 9:27:22 PM	Threats-P	2	Beat D5	3D6	00:16:38	00:33:48	00:42:25	N9- No Report/ Compl Contacted
3/30/2008 9:27:45 PM	Reckless Damage-P	3	Beat A4		00:00:00	00:00:00	00:02:41	N2- Duplication of Call
3/30/2008 9:27:48 PM	Traffic Accident/Prop Damage-P	3	Beat A4	3A1	00:05:46	00:38:20	00:41:39	R2- Offense Report
3/30/2008 9:27:48 PM	Traffic Accident/Prop Damage-P	3	Beat A4	3A	00:05:46	00:40:32	00:41:39	R2- Offense Report
3/30/2008 9:29:18 PM	Investigation-P	3	Beat D3	3D6	00:11:13	00:00:53	00:42:27	N9- No Report/ Compl Contacted

FirstWatch recognizes the need for tracking response times on law enforcement calls as well as EMS calls. The response time report includes calculations of the time the call is assigned to the time the officer arrives on scene, the time the call is assigned to the time the call is completed, and the time the call comes into the dispatch center to the time the call is completed. Self-initiated calls are filtered out to enable a more accurate picture for those calls dispatched.



Response Time Performance, by Zone

In this example, CAD generated time-stamps for defined response components are computed for a single specified Fire/EMS response zone and are measured against a user-defined standard (8 minutes, 90 % of the time). When response goals are not met, real-time alerts are automatically transmitted to pre-identified personnel accountable for agency performance objectives.

Zone 4 - 1st Responder Current Call Information

Calls displayed represent active or performed calls between the hours of 4/8/2008 5:23:20 AM and 4/8/2008 5:23:20 PM. Performance Standard = 00:08:00

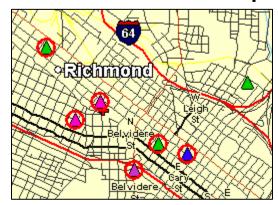
Data and Report from the FirstWatch TM Internet Server

	Address/Location Assign T Enroute	# Unit	Response	ProQA	Problem	Time Sent To Queue	Outside Standard
8 00:04:27 00:06:5	00:02:28	E44	023064	29D02f	Traffic Accident (L1)	4/8/2008 6:13:19 AM	No
4 00:02:44 00:05:2	00:02:44	E37	023070	13C01C	Diabetic Problems (L1)	4/8/2008 6:27:23 AM	No
00:02:52 00:05:2	00:02:31	E23 Zone 4 - 1st Responder Graph	023077	13C01	Diabetic Problems (L1)	4/8/2008 7:12:34 AM	No
9 00:03:30 00:05:5	7-Informance Charl 00:02:29	THE DESIGN OF STREET	023079	31D01	Unc/Fainting (Non Trauma)(L1)	4/8/2008 7:34:49 AM	No
4 00:02:33 00:06:4	00:04:14	5=	023080	<u>29801</u>	Traffic Accident (L1)	4/8/2008 7:45:11 AM	No
00:01:59 00:04:5	Mars Names October Company Com	* Consectionates # 1000 Con	023082	29806	Traffic Accident (L1)	4/8/2008 7:57:17 AM	No
3 00:03:19 00:06:3	00:03:13	Company of the compan	023086		Traffic Accident (L1)	4/8/2008 8:36:06 AM	No
7 00:01:47 00:03:5	Name St. State Completions Mark St. State Completions	Carrow Compliance	023094	06D03A	Breathing Problems (L1)	4/8/2008 10:12:56 AM	No
2 00:02:18 00:04:1	00:01:52		023103	<u>12D02</u>	Convulsions / Seizures (L1)	4/8/2008 11:10:07 AM	No
	80 Outwest Structured (25 or EVN)	D Codeside Shamiland D or 20154					
3	00:02:51 00:02:07	Conner Compleme	023082 023086 023094	29B06	Traffic Accident (L1) Traffic Accident (L1) Breathing Problems (L1)	4/8/2008 7:57:17 AM 4/8/2008 8:36:06 AM 4/8/2008 10:12:56 AM	No No



Geographic Clusters of Incidents, by Type

MapShot Geo-Clusters

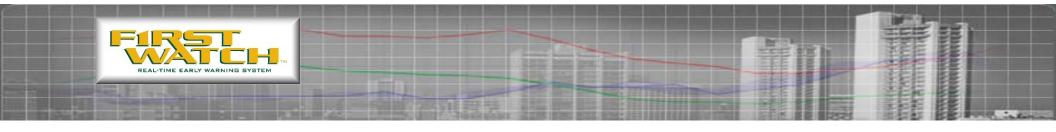


Active/Recent Geo-Clusters

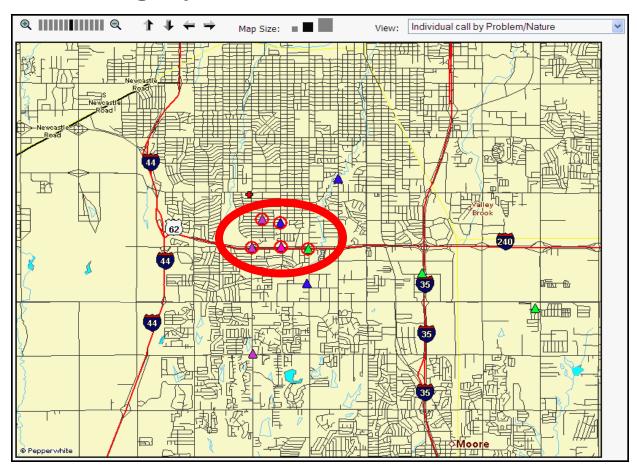
FIRSTWATCH Bioterrorism (All Regions: Count, STA, CUSUM) (Combo2) Current Call Information

Calls displayed represent active or performed calls between the hours of 6/23/2005 4:57:00 PM and 6/24/2005 4:57:00 AM Data and Report from the FirstWatchTM Internet Server

<u>GC</u>	Time Sent To Queue	<u>Pri</u>	<u>Problem</u>	ProQA	Response #	<u>Unit</u>	Address/Location	<u>Trans</u>
•	6/23/2005 4:53:04 PM	2	263N - Sick Person	<u>26A01</u>	0526666	484	From RAA	1
•	6/23/2005 4:57:01 PM	0	1CP-CHEST PAINS		2005-24363		From Heartland	1
•	6/23/2005 5:05:56 PM	1	311Y - Unconscious/Fainting	31D03	0526670	476	From RAA	1



Burglary Geo-Clusters – Des Moines



For the 2005 National Governor's Conference in Des Moines, law enforcement officials used a variety of FirstWatch Triggers to prepare for the heightened security requirements of a National Special Security Event (NSSE). During that time, a rash of burglaries occurred causing a FirstWatch Geo-Cluster Trigger to alert officials. Using the geographic pattern of burglaries identified by FirstWatch (along with exceptional police work), the detectives re-arrested the culprit who was a convicted felon recently released from detention.



Briefing Reports, by Sector — Plano PD

The Sector Triggers are presented at daily briefings or officers may log into FirstWatch and check the status of the previous 16 hours prior to shift. This enables oncoming shifts to see the activity that has occurred as well as what is in progress.

Plano PD - Sector A Calls	Status	Std Dev	5TA	CUSUH	Geo Cluster	Logged In
Plant FU Sector A Cars	OK 1	85/131	19000	25/2/2/2	Total Control of the	The State of the S
Plano PD - Sector B Calls	Status	Std Dev	STA	CUSUM	Geo Cluster	Logged In
Hally For Declar & Calls	GK S	54/106	222		4400000000	
Plang PD - Sector C Calls	Status	Std Dev	5TA	CUSUM	Geo Cluster	Logged In
EMBLE -ACCOL CAME	OK	70/107		***	300	-
Plano PD - Sector D Calls	Status	Std Dev.	STA	CUSUM	Geo Cluster	Logged In
Elements - Metal D Calle	DK	114/139	1944	1888	444	344

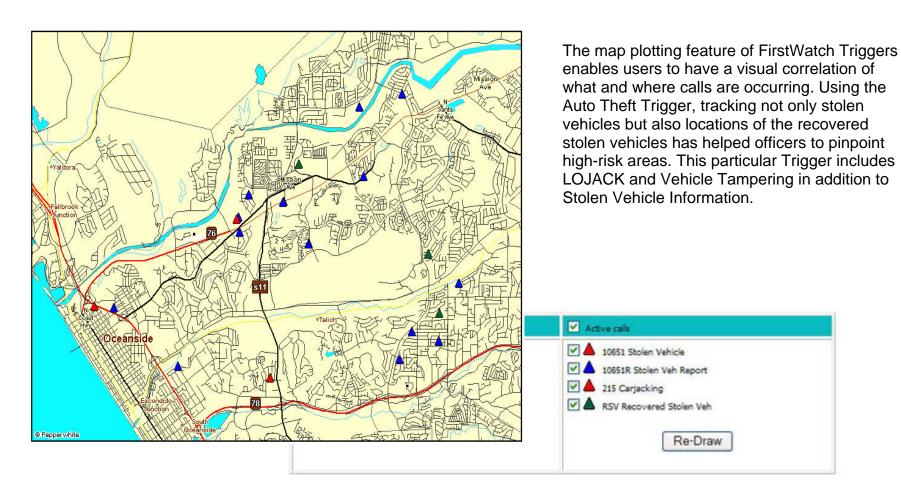
Plano PD - Sector A Calls Current Call Information

Calls displayed represent active or performed calls between the hours of 3/30/2008 8:50:34 PM and 3/31/2008 12:50:34 PM. Data and Report from the FirstWatchTM Internet Server

<u>GC</u>	<u>Geo</u> <u>Valid</u>	Time Sent To Queue	<u>Pri</u>	Problem	Response Area	Address/Location	Call Disposition
	✓	3/30/2008 8:50:43 PM	2	Traffic Stop-P	Beat A5	96 Nancy Lane	CT - Clear Traffic Stop
	✓	3/30/2008 8:57:22 PM	2	Assist Fire Department-P	Beat A1	106 Clawson Drive	N9- No Report/ Compl Contacted
	✓	3/30/2008 8:57:35 PM	3	Traffic Accident/Prop Damage-P	Beat A1	210 McKeage Way	R1- Accident Report
	✓	3/30/2008 9:03:14 PM	3	Investigation-P	Beat A3	86 ProQA Avenue	CI-Clear Self Init. Investig
	✓	3/30/2008 9:07:11 PM	3	Runaway-P	Beat A5	213 Sharp Lane, 126, Plano	R2- Offense Report



Auto Theft Trigger — MapShot, Oceanside PD





Stolen Vehicle Sentinel Trigger — Oceanside PD

Oceanside Police Stolen Vehicle Current Call Information

Calls displayed represent active or performed calls between the hours of 3/25/2008 10:41:04 AM and 4/4/2008 10:41:04 AM. Data and Report from the FirstWatchTM Internet Server

<u>GC</u>	Geo Valid	Time Sent To Queue	<u>Pri</u>	Problem	ProQA	Incident #	Address/Location
	1	3/26/2008 3:54:45 PM	2	10851R Stolen Veh Report		0800033859	247 NENA Bridge
	1	3/26/2008 11:30:57 PM	2	10851R Stolen Veh Report		0800034033	275 Balestracci Park
6	1	3/27/2008 8:55:48 PM	2	10851R Stolen Veh Report		0800034396	7 Clawson Drive
6	1	3/29/2008 2:18:17 AM	1	215 Carjacking		0800034965	81 Farber Avenue
•	V	3/30/2008 1:01:33 PM	2	10851R Stolen Veh Report		0800035564	205 Clawson Stre
•	1	3/30/2008 1:19:49 PM	2	10851R Stolen Veh Report		0800035572	282 Microsoft Coi
•	1	3/30/2008 1:48:11 PM	2	10851 Stolen Vehicle		0800035578	282 Microsoft Coi
0	✓	3/30/2008 4:02:30 PM	2	10851R Stolen Veh Report		0800035610	122 Irene Road
•	1	3/30/2008 4:59:34 PM	2	10851R Stolen Veh Report		0800035620	52 Cooper Highw
	1	3/31/2008 12:31:06 AM	2	10851R Stolen Veh Report		0800035766	220 HiTech Highv
6	1	3/31/2008 4:07:09 AM	2	10851R Stolen Veh Report		0800035792	93 NEMA Lane
6	1	4/1/2008 3:47:33 PM	2	10851R Stolen Veh Report		0800036323	49 NENA Parkway
6	✓	4/2/2008 1:43:42 PM	2	10851 Stolen Vehicle		0800036660	192 NEMA Street
	1	3/25/2008 11:29:30 AM	2	10851 Stolen Vehicle		0800033429	199 Surveillance

Because auto theft can include other call types, analysts at Oceanside recognized the need to identify stolen vehicle type calls separately. For this particular Trigger, they are notified every time there is a stolen vehicle call. Through the alerting, other local law enforcement agencies are kept abreast of any stolen vehicle activity occurring.

Besides being notified of events, geo-fences have been established to visually represent 3 or more calls that occur within a ½ mile diameter during a surveillance period of 10 days.





Recovered Stolen Vehicle Sentinel Trigger — Oceanside PD

Oceanside Police RSV Current Call Information

Calls displayed represent active or performed calls between the hours of 3/21/2008 11:53:47 AM and 3/31/2008 11:53:47 AM. Data and Report from the FirstWatchTM Internet Server

<u>GC</u>	<u>Geo</u> Valid	Time Sent To Queue	<u>Pri</u>	<u>Problem</u>	ProQA	Incident #	Address/Location
	?	3/21/2008 5:33:55 PM	2	RSV Recovered Stolen Veh		0800031934	211 Orbacom Street, *HOLD*, VISTA
	V	3/23/2008 3:32:21 PM	2	RSV Recovered Stolen Veh		0800032786	101 Demo Street
10	1	3/26/2008 12:22:07 AM	2	RSV Recovered Stolen Veh		0800033680	263 Wong Road
	1	3/28/2008 10:36:17 AM	2	RSV Recovered Stolen Veh		0800034584	15 Sharp Street
	1	3/28/2008 2:36:05 PM	2	RSV Recovered Stolen Veh		0800034656	106 Clawson Drive
10	?	3/28/2008 4:33:01 PM	2	RSV Recovered Stolen Veh		0800034703	51 APCO Lane
	1	3/29/2008 3:00:10 PM	2	RSV Recovered Stolen Veh		0800035159	182 Kevin Avenue
		10		·			<u> </u>

Total Responses: 7

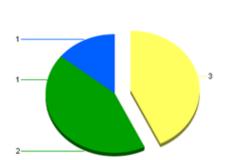
Because the Stolen Vehicle Trigger proved to be beneficial, Oceanside analysts took things a step further and requested a Trigger dedicated to the Recovered Stolen Vehicle calls. This Trigger is setup to alert PD staff and other agencies whenever there is a recovered stolen vehicle along with the location of recovery. The Trigger includes the same geo-fence established in the Stolen Vehicle Trigger and can inform officials if there is a particular area where vehicles are being left.

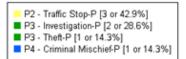


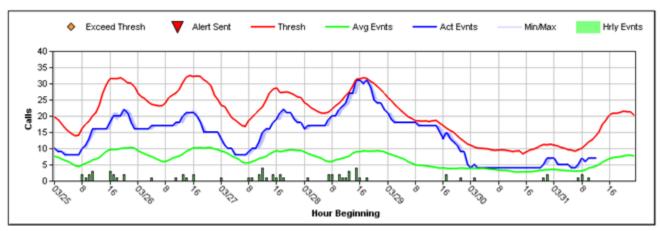
Location Type Calls — Plano PD

Plano PD - School Calls Current Call Information

Calls displayed represent active or performed calls between the hours of 3/30/2008 4:27:54 AM and 3/31/2008 12:27:54 PM. Data and Report from the FirstWatchTM Internet Server







The location of call activity can be just as important as the call itself. Plano analysts requested a Trigger that's based on calls that occur at schools. The primary objective is to monitor those calls related to narcotics on school grounds. However, monitoring other types of activities can be helpful in identifying on-going issues at particular locations.



Gang Related Sentinel — Oceanside PD

Incident #

0800033387

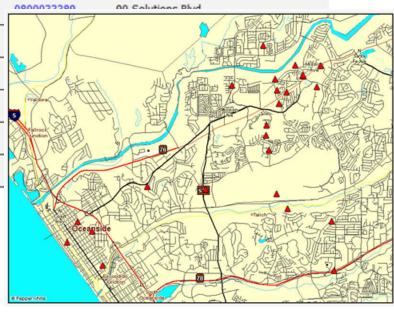
Oceanside PD - Gang Related Sentinel Current Call Information

Calls displayed represent active or performed calls between the hours of 3/25/2008 and 3/31/2008 11:59:59 PM.

Data and Report from the FirstWatchTM Internet Server

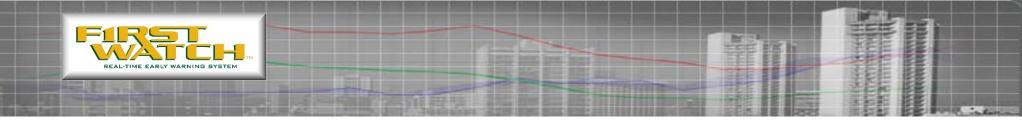
 Geo Valid	Time Sent To Queue	<u>Pri</u>	Problem	ProQA
1	3/25/2008 7:59:26 AM	4	Tagging 594 Report	
V	3/25/2008 8:14:31 AM	4	Tagging 594 Report	
1	3/26/2008 11:23:36 AM	4	Tagging 594 Report	
1	3/26/2008 12:24:38 PM	5	CKAREA Check Area	
1	3/26/2008 5:06:49 PM	3	602 Trespassing	
√	3/26/2008 5:28:31 PM	5	FYI For Your Info	
V	3/26/2008 5:45:47 PM	4	Tagging 594 Report	

Law enforcement agencies throughout the United States deal with gang activity and have special units assigned to monitor events. Task forces at Oceanside requested a Trigger specific to the monitoring of such events. This Trigger was designed to search call comments for key words and call types associated with local gangs. As is depicted in the map view, officers can visually identify areas with strong gang activity.



Address/Location

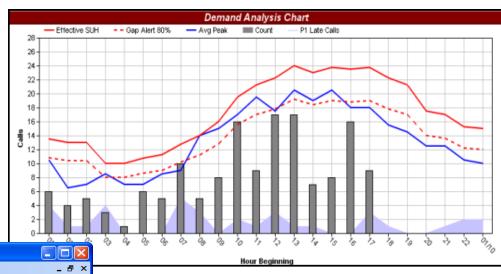
203 Academy Blvd

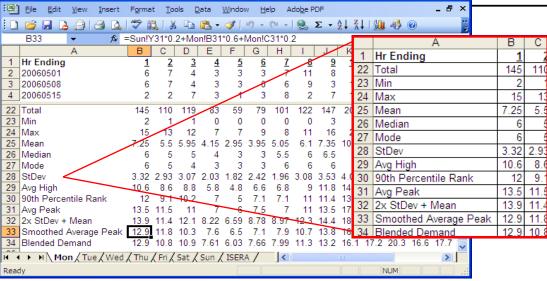


Real Time Demand Analysis

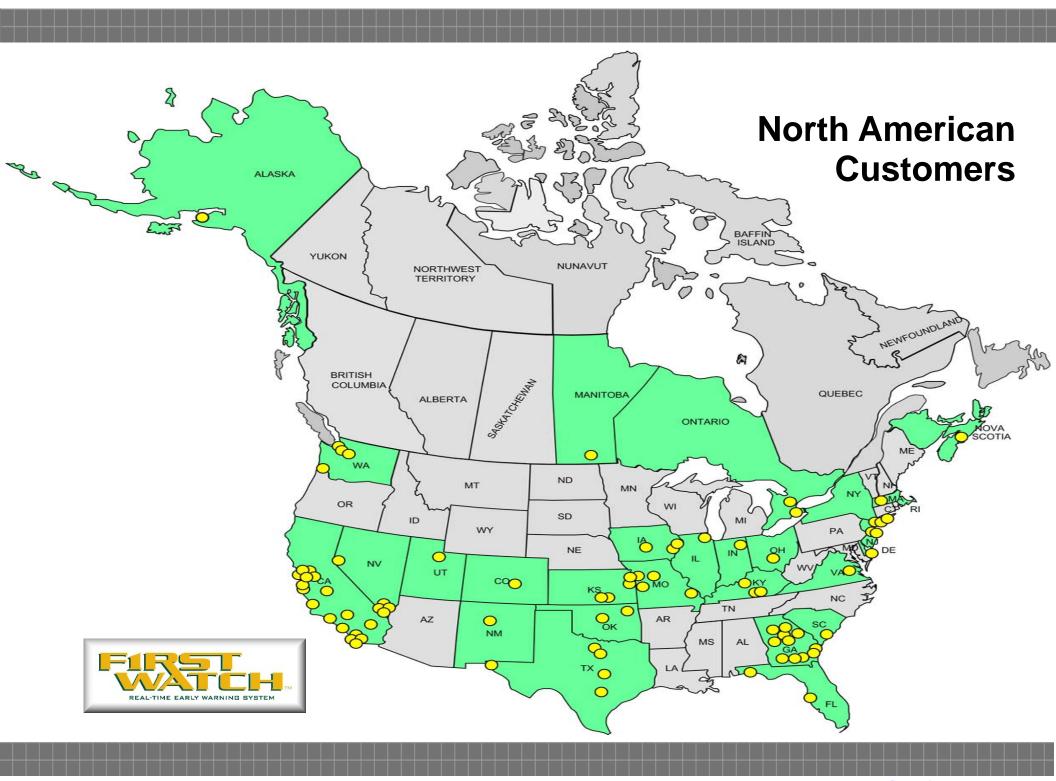
One of the many challenges faced by agencies is to find the most effective use of the resources they have available. A common way to forecast needs for staffing, scheduling and resource deployment is to analyze historical patterns of demand for service, by day of week as well as hour of day and geographically. This time proven approach is referred to as "Demand Analysis." Variations of this approach have been used for more than 20 years all around the world. In the past, the process of compiling and creating a complete temporal and geographic Demand Analysis was tedious, time-consuming, and too often, very manual.

Microsoft Excel - DownloadDA-20060911125641.xls





FirstWatch has created real-time, dynamically updated and calculated Demand Analysis Module which offers views of select customer data. The Demand Analysis calculations in the data can be downloaded into an Excel spreadsheet, with all formulas intact. We're working to enhance the Demand Analysis module by adding a Demand Consumption-based approach, as well as addressing geographical demands by creating up-to-the minute problem/solution maps for each hour of the day and each day of the week and/or other user-defined intervals.





For additional FirstWatch information including individual PDF's of Dashboard & Trigger examples, as well as Case Studies, Press Coverage, Informative Articles and a Map of North American FirstWatch Deployments, please visit us online at:

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