

March 3rd, 2003

San Gabriel Valley

P i l o t P r o j e c t

Information Exchange Network (IEN)
System Operator Training - Day 3

Final

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IEN System Operator's Training

Part 3

San Gabriel Valley Pilot Project

Countywide Information Exchange Network



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Operator's Training Part 3 Agenda

- IEN Alarm Viewer
 - TCS and Operator Alarms
 - Alarm Filters
- System Log Viewer
 - Simple and Complex Filters
- Overview of Administrative Applications
 - ATMS Database Administration
 - System Configuration Manager
- Where to find help
- System Operator's Training Wrap-Up



IEN Alarm Viewer



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IEN Alarm Viewer Overview

- The IEN Alarm Viewer application is used to display current alarm conditions within the corridor
- Authorized operators acknowledge and clear alarms to track the maintenance response status
 - Alarms are acknowledged to indicate that a corrective action has been initiated.
 - Alarms are cleared when the alarm condition has expired.
- There are two types of IEN alarms
 - Operator
 - TCS



IEN Operator Alarms

- Operator alarms are manually declared by IEN operators. (For example, an operator creates an alarm to notify other operators that an intersection controller is being taken offline for maintenance.)
- There are two clearance policies for operator alarms

Policy	Description
Manual Clear	Alarm must be manually acknowledged and cleared
Clear on Acknowledge	Alarm will clear automatically upon being acknowledged



IEN Operator Alarm Privileges

- An operator alarm is displayed to all operators within the corridor
- Operator alarms can only be acknowledged or cleared by
 - The operator who declared the alarm
 - Another operator working at the same workstation where the alarm was declared (To handle shift-changes)
 - ATMS Supervisors (ATMS Supervisors are a type of user within the IEN. They are responsible for administrating users, devices, and access privileges within the IEN.)



IEN TCS Alarms

- TCS alarms are automatically generated as the system determines that a TCS device is reporting an alarm state. (For example, the system will declare an alarm for an intersection controller reporting a door open, flash, or internal error state.)
- The current implementation is limited to alarms generated by intersection controller devices



IEN TCS Alarm Privileges

- A TCS alarm is only displayed to operators who hold the VIEW privilege on the generating device
- Operators must hold the EXECUTE privilege on the generating device in order to be able to acknowledge or clear a TCS alarm
- Alarm privileges are configured within the IEN System Configuration Manager application.



Alarm Viewer Screen Areas

The screenshot shows the 'Administrator - AlarmViewer' application window. It features a menu bar with 'System', 'View', 'Action', 'Tools', and 'Help'. Below the menu bar is a toolbar with icons for home, refresh, stop, and help. The main area is a table of alarm records. A callout box labeled 'Menu Bar' points to the menu items. Another callout box labeled 'Toolbar' points to the icons. A third callout box labeled 'Browser Pane' points to the table area. A fourth callout box labeled 'Status Bar' points to the bottom of the window, which displays 'Copyright 2001-2002 County of Los Angeles. All Rights Reserved.', 'OP/TCS - Active/Ack/Cleared', 'No Date Filter', and '50 Viewable of 50'.

ID	Status	Type	Creator	Message	Created Date	Source
571862	Active	TCS Specific	1/2/1/1/170	1/2/1 int170: flash alarm	2002/10/09 23:56:55	PWSGVIEN2
571861	Active	TCS Specific	1/2/1/1/313	1/2/1 int313: flash alarm	2002/10/09 23:56:54	PWSGVIEN2
571860	Active	TCS Specific	1/2/1/1/192	1/2/1 int192: flash alarm	2002/10/09 23:56:53	PWSGVIEN2
571859	Active	TCS Specific	1/2/1/1/166	1/2/1 int166: flash alarm	2002/10/09 23:56:52	PWSGVIEN2
571858	Active	TCS Specific	1/2/1/1/297	1/2/1 int297: flash alarm	2002/10/09 23:56:47	PWSGVIEN2
571857	Active	TCS Specific	1/2/1/1/257	1/2/1 int257: flash alarm	2002/10/09	GVIEN2
571856	Active	TCS Specific	1/2/1/1/263	1/2/1 int263: flash alarm	2002/10/09	GVIEN2
571855	Active	TCS Specific	1/2/1/1/256	1/2/1 int256: flash alarm	2002/10/09 23:56:38	PWSGVIEN2
571854	Active	TCS Specific	1/2/1/1/315	1/2/1 int315: flash alarm	2002/10/09 23:56:33	PWSGVIEN2
571853	Active	TCS Specific	1/2/1/1/204	1/2/1 int204: flash alarm	2002/10/09 23:56:29	PWSGVIEN2
571852	Active	TCS Specific	1/2/1/1/246	1/2/1 int246: flash alarm	2002/10/09 23:56:28	PWSGVIEN2
571851	Active	TCS Specific	1/2/1/1/167	1/2/1 int167: flash alarm	2002/10/09 23:56:25	PWSGVIEN2
571850	Active	TCS Specific	1/2/1/1/806	1/2/1 int806: flash alarm	2002/10/09 23:56:22	PWSGVIEN2
571849	Active	TCS Specific	1/2/1/1/136	1/2/1 int136: flash alarm	2002/10/09 23:56:17	PWSGVIEN2
571848	Active	TCS Specific	1/2/1/1/104	1/2/1 int104: flash alarm	2002/10/09 23:56:17	PWSGVIEN2
571847	Active	TCS Specific	1/2/1/1/714	1/2/1 int714: flash alarm	2002/10/09	GVIEN2
571846	Active	TCS Specific	1/2/1/1/715	1/2/1 int715: flash alarm	2002/10/09	GVIEN2



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Alarm Viewer Browser Pane

- The browser pane displays the list of alarm records
- The contents of the alarm list is based on two factors:
 - The operator's authority to view alarms from TCS devices within the corridor
 - Filters applied to the current view



Alarm Viewer Browser Pane Fields

Option	Description
ID	The unique identifier for the alarm.
Status	The current status of the alarm. (Open, acknowledged, cleared.)
Type	The type of alarm. (Operator or TCS.)
Creator	Identifies the IEN user or TCS device that generated the alarm.
Message	The alarm message text.
Created Date	The date/time that the alarm was generated.
Source	The IEN system at which the alarm was declared. (For TCS alarms this field will display the name of the TCS Device's Corridor Server)



Alarm Viewer Menus

- The Alarm Viewer provides the following five (5) menus:
 - System Menu
 - View Menu
 - Action Menu
 - Tools Menu
 - Help Menu



Alarm Viewer System Menu Options

Option	Description
Connect	<p>Manually initiates communication between the Alarm Viewer application and the Corridor Alarm Service, which provides alarm data to the viewer.</p> <p>The Alarm Viewer automatically attempts to connect to the Corridor Alarm Service upon being launched and will periodically reattempt to connect in the event that communication is disrupted.</p>
Disconnect	<p>Manually drops communication between the Alarm Viewer application and the Corridor Alarm Service. Automatic connection attempts are discontinued.</p>
Exit	<p>Closes the application</p>



Alarm Viewer View Menu Options

Option	Description
Status Bar Toggle	Displays/Hides the Alarm Viewer status bar
Message Window Toggle	Displays/Hides the Alarm Viewer's output message window
Refresh	Manually initiates a poll to the Corridor Alarm Server for new data. The Alarm Viewer will automatically poll for new alarm data at a configurable interval.



Alarm Viewer Action Menu Options

Option	Description
Create New	Launches the Create Alarm dialog
Acknowledge	Acknowledges the selected alarm
Clear Alarm	Clears the selected alarm



Alarm Viewer Tools Menu Options

Option	Description
Filter	Launches the Alarm Filter dialog



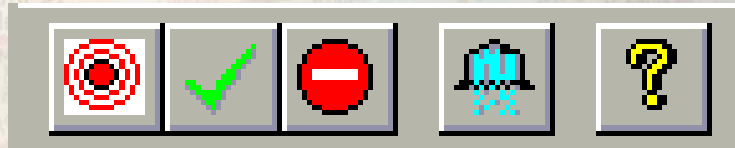
Alarm Viewer Help Menu Options

Option	Description
Help Topics	Opens the online help screens for the Alarm Viewer application
About Alarm Viewer	Displays Alarm Viewer copyright and version information



Alarm Viewer Toolbar

- The Alarm Viewer toolbar provides the following five (5) options (from left to right):
 - Create New Alarm
 - Acknowledge
 - Clear
 - Launch Alarm Filter
 - About Alarm Viewer



Alarm Detail View

- The Alarm Detail View provides more detailed status history for an alarm
- The view can be opened by double-clicking an alarm record listed in the browser area



Alarm Detail Window (cont.)

Alarm Detail [X]

Description

Alarm ID:	126143	Creator ID:	1/1/0/9/1
Alarm Type:	Operator Generated	Created Time:	2002/10/16 15:02:16
Status:	Acknowledged	Last Modified:	2002/10/16 15:02:42

Acknowledged

ID:	1/1/0/9/1	Cleared Info
Date/Time:	2002/10/16 15:02:42	Clearer ID:
		Clear Type: Manual Clear
		Date/Time:

Message

Int201 maint 2-4:30A.M. 10/02/01

OK



Create Alarm Dialog

- The create alarm dialog is used to create operator alarms

Create Alarm [X]

Clearance Policy

Manual Clear

Clear On Acknowledge

Message:

Int201 maint 0100-0300 10/16/02

OK Cancel



Create Alarm Dialog Fields

Fields	Description
Clearance Policy Toggles	Specifies the clearance policy for the alarm (Manual Clear or Clear On Acknowledge)
Message	Textual description of the Alarm



Alarm Filter Dialog

- The Alarm Filter dialog is used to limit the types of alarms displayed in the browser area
- The alarm filter parameters are divided into three sections:
 - Generated Since
 - Alarm Status
 - Alarm Type
- At least one Alarm Status and one Alarm Type value must be selected ... otherwise all alarms will be filtered from the list



Alarm Filter Dialog (cont.)

Filter [X]

Generated Since

- No Date Filtering
- Last Hour
- Last 24 Hours
- Last 48 Hours

Since

09/12/2002 11:27:18

Between

07/11/2002 22:00:00

and

07/16/2002 23:00:00

Alarm Status:

- Active Alarm
- Acknowledged
- Cleared

Alarm Type:

- Operator Generated
- TCS Generated

Apply Cancel Reset



Alarm Viewer Status Bar

- The Alarm Viewer status bar provides information on the current activity and condition of the application
- The status bar is divided into four (4) panes

Copyright 2001-2002 County of Los Angeles. All Rights Reserved. OP/TCS - Active/Ack/Cleared No Date Filter 0 Viewable of 0 Total Alarms



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Alarm Viewer Status Bar Panes

Pane	Description
Current Activity	Displays either copyright information or describes the activity currently being performed by the application (Such as "Reading Alarm Data")
Status/Type Filter Indication	Indicates which alarm status and type filters applied to the current view
Date Filter Indication	Indicates which date filter is applied to the current view
Number of Alarms	Displays the number of alarms in the current view or indicates that the Alarm Viewer is not connected to the Corridor Alarm Service



Creating Operator Alarms

To declare a new operator alarm:

1. Select the **Create New** option from the Action Menu to open the Create Alarm dialog
2. Select a clearance policy
3. Enter the text of the alarm message
4. Select the **OK** button to declare the new alarm



Acknowledging IEN Alarms

To acknowledge an alarm:

1. Select the alarm in the browser area
2. Select the **Acknowledge** option from the Action Menu



Clearing Operator Alarms

To clear an alarm,

1. Select the alarm in the browser area
 2. Selects the **Clear** option from the Action-menu
- (Note: Only acknowledged alarms can be cleared)



ATMS System Log Viewer



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System Log Viewer Overview

- The System Log Viewer provides the ability to view, filter, sort, and print IEN event messages
- Event messages are automatically generated by IEN software applications to log user and system events such as:
 - Events that change the operation of the IEN software or
 - Events that affect the operation of connected systems
 - Detected errors and other information that would be useful for diagnosing problems



System Log Viewer Overview

- The System Log Viewer generates an event logs list based on the filter parameters applied on the current view
- Event log views are static, meaning the event log lists are not automatically updated as new events are logged
- Operators can manually refresh event log views as needed



System Log Viewer Screen Areas

The screenshot shows the System Log Viewer application window. The interface includes a menu bar with 'System', 'View', 'Tools', and 'Help'. Below it is a toolbar with icons for refresh, up/down arrows, print, and help. A filter section contains checkboxes for 'Complex' and 'Simple', and dropdown menus for 'Generated Since' (11/06/2002), '00:15:00', 'Severity', 'Source', 'Entity Type', and 'ID'. The main area is a table of log entries, and the bottom status bar shows 'Simple filtering', '10:17:44', and '91'.

Generated	Source	Entity Type	ID	Msg. #	Message
12/03/2002 16:59:56	DSYNC	None		1	Synchronized data for TableGroup IntersectionLayerTables.
12/03/2002 16:59:58	DSYNC	None		1	Synchronized data for TableGroup IntersectionLayerTables.
12/03/2002 17:00:49	SCEM	None		1	Corridor Scenario Manager started.
12/03/2002 17:00:50	SCEM	None		9	bound name to CORBA Naming Service
12/03/2002 17:01:00	LData	LData		1	Startup; Sync Interval = 1
12/03/2002 17:01:05	DARCH	None		1	The Data Archiver service has been started.
12/03/2002 18:16:13	DARCH	None		2	The Data Archiver service has been started.
12/03/2002 18:16:24	SCEM	None		2	Corridor Scenario Manager started.
12/03/2002 20:12:33	LData	LData		1	Startup; Sync Interval = 1
12/03/2002 20:12:33	DARCH	None		1	The Data Archiver service has been started.
12/03/2002 20:14:35	SCEM	None		1	Corridor Scenario Manager started.
12/03/2002 20:14:36	SCEM	None		9	bound name to CORBA Naming Service
12/03/2002 20:15:25	DARCH	DET		7	An invalid field name was used in a query string.
12/03/2002 20:16:21	DARCH	None		2	The Data Archiver service has been shutdown.
12/04/2002 16:15:08	SCEM	None		1	Corridor Scenario Manager started.
12/04/2002 16:15:09	SCEM	None		9	bound name to CORBA Naming Service



System Log Viewer Browser Pane

- The Browser Pane displays the event log messages that have met the selected filter criteria
- Messages are sorted in ascending order by date and time
- List columns can be resized by dragging the column dividers in the header



Event Log Browser Pane Fields

Option	Description
Severity Indication	The severity level (Informational, Warning, Failure, or Debug) assigned to the event
Generated	The date/time that the message was generated
Source	The system component that generated the message
Entity Type	The entity type to which the message refers
ID	Identifies the entity for which the message was generated
Msg. #	Identifies the message type (each source has its own set of pre-configured message types)
Message	Textual description of the event
Log ID	Unique ID for the event log
Workstation	Identifies the system where the event was logged



System Log Viewer Menus

- The System Log Viewer provides the following four (4) menus:
 - System Menu
 - View Menu
 - Tools Menu
 - Help Menu



System Log Viewer System Menu Options

Option	Description
Print	Opens a print dialog from which the current log view can be printed
Print Preview	Displays a print preview of the current log view
Print Setup	Opens a printer setup dialog
Exit	Closes the application



System Log Viewer View Menu Options

Option	Description
Toolbar toggle	Displays/Hides the System Log Viewer toolbar
Status Bar Toggle	Displays/Hides the System Log Viewer status bar
Refresh	Polls the system log database for updated log data
Retrieve Oldest Events First	Runs the selected filter and focuses the view on the the oldest event log in the list
Retrieve Newest Events First	Runs the selected filter and focuses the view on the newest event log in the list
Complex Filter	Opens the Complex Filter Dialog, which can be used to limit the content that is shown in the list area



System Log Viewer View Menu Options (cont.)

Option	Description
Simple Filter	Applies the selected Simple Filter, which limits the content that is shown in the list area
Detach	<p>TransCore integrates the system log viewer with a number of ATMS applications developed for other projects. Some of these applications provide the ability to open a view of system log records for a specific entity.</p> <p>Typically applications that spawn system log viewer windows will attempt to reuse a single instance of the viewer. The detach option disassociates a system log viewer window from the spawning application. This causes that application to use a new viewer window the next time it needs to display system log records.</p>



System Log Viewer Tool Menu Options

Option	Description
Open ATMS Navigator	Launches the <i>ATMS Navigator</i> application



System Log Viewer Help Menu Options

Option	Description
Help Files	Opens the online help screens for the application
About System Log Viewer	Displays application version/copyright information



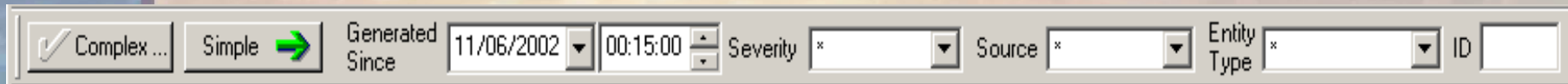
System Log Viewer Toolbar

- The Toolbar provides the following five (5) options (from left to right):
 - Refresh
 - Retrieve Oldest Events First
 - Retrieve Newest Events First
 - Detach
 - About System Log Viewer
- Toolbar options are also available from the View Menu



System Log Viewer Filter Bar

- The Filter Bar provides access to the complex and simple system log filters



The screenshot shows a filter bar with the following elements from left to right: a checked 'Complex ...' button, an unselected 'Simple' button with a green arrow pointing right, a 'Generated Since' label, a date dropdown menu set to '11/06/2002', a time dropdown menu set to '00:15:00', a 'Severity' dropdown menu with an asterisk, a 'Source' dropdown menu with an asterisk, an 'Entity Type' dropdown menu with an asterisk, and an 'ID' text input field.



System Log Viewer Simple Filters

- Simple Filter parameters are located on the Filter Bar
- The filters are additive, only messages meeting all of the selected criteria will appear in the event log list
- To apply a simple filter, select the desired filter parameter values on the Filter Bar and click the **Simple** button to query the database for matching event logs
- When a simple filter is applied the "→" symbol on the Filter Bar's Simple button will be colored green.



Simple Filter Parameters

Option	Description
Generated Since	Filters for events generated since the specified date/time
Severity	Filters for a particular event severity type
Source	Filters for events generated from a particular source
Entity Type	Filters for events generated by a particular type of entity
ID	Filters for events generated by a particular device

- Operators can use the "*" symbol within the Simple Filter parameter pick lists to filter for "all values" of a particular parameter



System Log Viewer Complex Filters

- Complex Filter parameters provide more extensive filtering options than those found on the Filter Bar
- The Complex Filter dialog can be launched by selecting either the **Complex** button on the Filter Bar or the **Complex Filter** option within the View Menu
- When a complex filter is active the “√” symbol on the Filter Bar’s Complex button will be colored green



System Log Viewer Complex Filters

- The Complex Filter dialog is divided into sections -- Severity, Source, Entity Type, Generated Since, Entity ID's, and Message ID's
- At least one severity, one source, and one entity type filter value must be selected ... otherwise all messages will be filtered from the list



System Log Viewer Complex Filter Dialog

Complex Filter [X]

Severity

Failure Informational
 Warning Debug

Generated Since

Any Date
 Last hour
 Last 24 hours
 Last 48 hours
 Since
 06/11/2002 00:00:00
 Between
 06/11/2002 14:53:11
 and
 06/11/2002 14:53:11

Source

- Alarm Manager
- ATMS Navigator
- Database Archiver
- Database Sync
- IEN Alarm Viewer
- IEN Database Purge
- Link Data Service
- Motorist Information
- Operator UI
- RTData Service

Entity Type

- Alarm Data
- Camera
- Detector Data
- Dynamic Message S
- Group of intersection
- Highway Advisory F
- IEN Section
- Incident
- Informational Polylin
- Informational Text

Entity ID's

[Text Field]

(An ID or List of ID's separated by spaces or commas)

Message ID's

[Text Field]

(An ID or List of ID's separated by spaces or commas)

OK Cancel Reset



Complex Filter Parameters

- Severity, Source, and Entity Type values with empty check boxes are filtered from the event log view
- The Entity ID(s) and Message ID(s) parameters can be specified as a single ID or for a list of IDs separated by spaces or commas



Complex Filter Parameters (cont.)

- The "Generated Since" section provides several ways to filter by the date/time that the event was logged

Option	Description
Any Date	Returns all messages regardless of the date
Last hour	Returns messages generated within the last hour
Last 24 hours	Returns messages generated within the last 24 hours
Last 48 hours	Returns all messages generated within the last 48 hours
Since	Returns all messages generated since the selected date and time
Between	Returns all messages generated between the selected dates and times



Complex Filter Options

- The **OK** button applies the selected Complex Filter parameters and closes the Complex Filter dialog
- The **Cancel** button drops any changes to the Complex Filter parameters and closes the Complex Filter dialog
- The **Reset** button resets the Complex Filter parameters to their default values



System Log Viewer Status Bar

- The Status Bar provides information on the current activity and condition of the application
- The Status Bar is divided into five (5) panes

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Simple filtering

12:00:30

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System Log Viewer Status Bar Panes

Pane	Description
Current Activity	Displays either copyright information or describes the activity currently being performed by the application (Such as "Reading Log Data")
Filter Type	Indicates which type of filter is active (simple or complex)
Latest Data Sampling	Displays the data read time stamp for the current event log view
Number of Messages	Displays the number of messages in the current event log view
Message Severity	Indicates the most severe type of message contained in the current event log view (debug, informational, warning, or failure)



IEN Administrative Applications



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ATMS Database Administration

- The ATMS Database Administration (or ATMSDA) application is a tool used to access and modify MICE dropdown lists and IEN data retention parameters
- The application also provides a series of database configuration and MICE activity reports
- ATMSDA is available to both ATMS Supervisors and ATMS Operators, however ATMS Operators are restricted to the report screens and may not modify ATMSDA parameters



ATMS Database Administration (cont.)

ATMS Database Administration - [ATMS Database Administration : Form]

File Help

Street Modifications Street Reports Utility Modifications Utility Reports
MICE Reports MICE Selection Reports MICE Selections

Daily Incident Report
Incident Location Report
Incident Notification Report
Incident Source Report
Planned Event Summary Report

Preview... Print

Form View NUM



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System Configuration Manager

- The IEN System Configuration Manager application is used to configure user, device, scenario, and privilege parameters within the corridor database
- The application consists of a series of tabbed pages where each page is responsible for configuring a specific entity within the IEN
- The System Configuration Manager is only available to ATMS Supervisors



System Configuration Manager (cont.)

System Configuration Manager - [Main : Form]

File Help

Add/Modify Scenarios Add/Modify Link Detectors IEN Reports Archive Add/Modify Entity
Add/Modify IEN User Add/Modify IEN Group Add/Modify IEN Resource Group Add/Modify Resource Privileges

Login Name Lookup: Administrator

Login Name: Administrator * CorridorID: SGV *
Full Name: Administrative Account SiteID: LACDPW *
SystemID: LA County System *
Entity Number:

Group Memberships

Member of:
Pasadena IEN Operators

Not member of:
Corridor Scenario Coordinators
IEN Services
LA County IEN Administrators
LA County IEN Operators
LA County IEN Supervisors
LA County IEN TCS Operator



Sources of Additional IEN Information

- IEN System Operator's Guide
- On-line help screens within the IEN applications
- IEN Administrator
- Ongoing TransCore Support



IEN Operators Training Wrap Up

Questions & Answers



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