

# DMS4

## User Guide

V4.4



# Software & PC Requirements

## MINIMUM PC REQUIREMENTS FOR DMS4 Server Software

OS: Windows XP or higher

CPU: i5 Quad Core

RAM: 4GB (0-50 Vehicles), 8GB (50-100 vehicles), 16 GB (100-250 vehicles)

HDD: 10GB per vehicle (storage will vary based on event total, live stream requests, & HD video requests).

Data usage per vehicle, per month will range between 500mb & 1GB. Please plan accordingly.

Monitor: 1280 x 800 resolution

**NOTE\*** It is recommended that the DMS4 PC is used only for our DMS4 software and not other operations. The DMS4 PC must not go into hibernate/sleep mode as the internet connection must remain to receive the data from the vehicles.

**NOTE\*\*** A static/public IP address or DDNS is required so the KP1 cameras can find the server remotely. A port # must be specified and open for two-way communication between KP1 and the DMS4 server. DMS4 will not function properly with a Dynamic IP address.

## The following softwares must be downloaded to your PC/Workstation/server

- KP1 Configuration Tool: <http://smartwitness.com/usa/download-software.html>
  - Used to configure the KP1 camera with server credentials and cellular/Wi-Fi network details
- KP1 PC Analysis Software: <http://smartwitness.com/usa/download-software.html>
  - Used to analyze HD video uploads and convert HD videos to standards
- DMS 4 Server Software: <http://www.smartwitness.com/usa/software/DMS4.zip>
  - DMS4 software will default to demo license. Demo license allows connection for up to 3 vehicles.
  - Please contact SmartWitness or your distributor to purchase a license for fleets larger than 3 vehicles.

# KP1 setup: Configuration Tool > Info Tab

1) Open the Configuration Tool



2) Select Info Tab

3) Enter your Vehicle ID

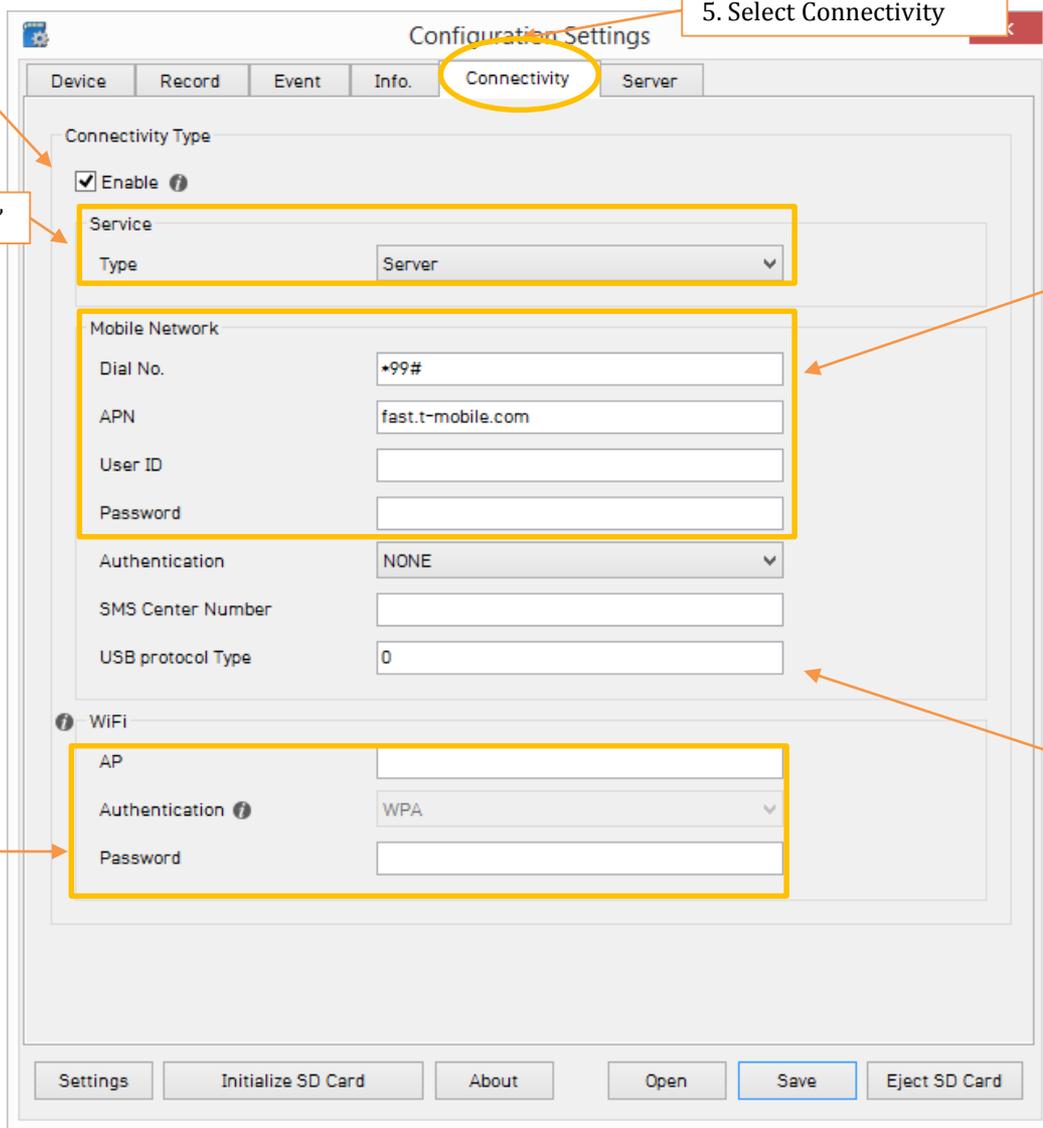
\*It should be less than 10 characters; alphanumeric only.

\*Do not use spaces between characters.

**\*Vehicle ID and Driver Name can also be added/changed remotely from DMS4 server software. Adding it on the SD card of each vehicle is not mandatory.**

4) Enter Driver ID (Name)

# KP1 setup: Configuration Tool > Connectivity Tab



5. Select Connectivity

6. Check Enable

7. Set your service type as "Server"

8. Set your SIM card connection information  
\*This will vary depending on the cellular provider

8-2. You can use Wi-Fi transfer in place of 3G. KP1-INT3(wifi) usb modem required. KP1-INT1-S power adaptor also highly recommended (for the delay power shutdown feature)  
Enter Wi-Fi SSID and password here.  
**\*You cannot use 3G and Wi-Fi simultaneously**

9. Set your USB dongle type.  
\*All dongles will be "0" except for the Huawei E3531 model.

# KP1 setup: Configuration Tool > Server Tab

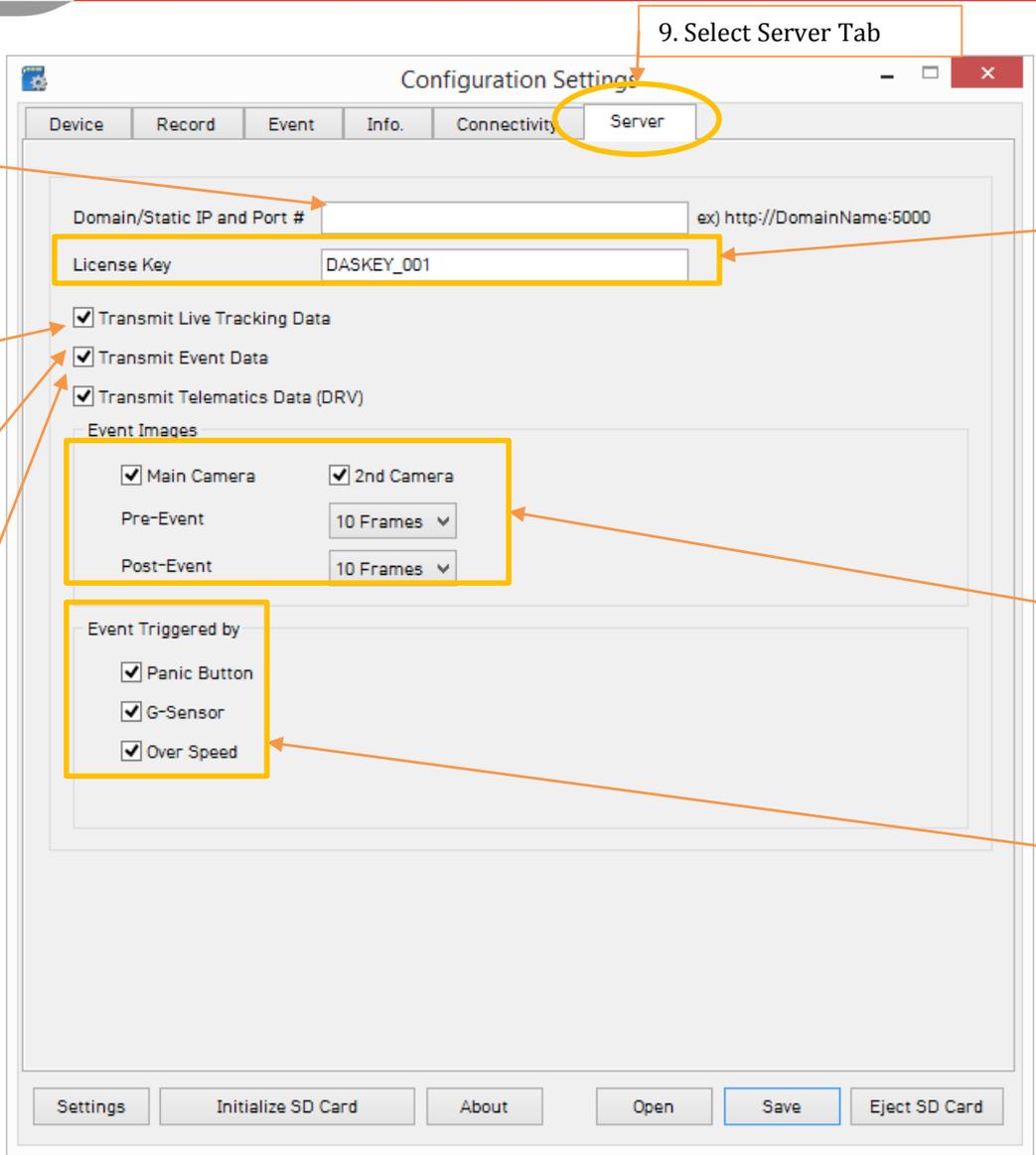
10. Set your DMS4 server URL.  
 Examples:  
 http://kp1.smartwitness.com:5000  
 http://112.222.189.236:5000

12. Check here to receive live location information.

13. Check here to receive event notifications and event images

14. Check here to receive driving logs (used for daily driving routes and drive behavior reports)

**NOTE: Your server must have a static/public IP address. KP1 must be able to locate DMS4 from a remote location. DMS4 location cannot utilize dynamic IP. Please contact your internet service provider for help regarding static/public IP address setup.**



11. Set your License Key  
 Default License Key is "DASKEY\_001"

15. Set event images number to send.  
 Example:  
 Pre-event 10 images  
 Post-event 10 images

16. Set Event type.  
 If you use KP1-INT1 or KP1-INT2 as the power, then you can select Alarm events as well.

# (If Applicable) Uninstall previous version of DMS4

**NOTE: To prevent any unexpected issues, please remove previous version first before installing new version.**



**Programs**  
Uninstall a program

1. Control Panel => Uninstall a program

2. Select DMS4 previous version and remove it

Name	Publisher	I...	Size	Version
DMS 4.3.0.RC5	Y3K Limited.	3/10/2015		
Microsoft Visual C++ 2010 x86 Redistributable - ...	Microsoft Corporation	3/9/2015	11.1 MB	10.0.40219
Skype		9/2015	48.9 MB	7.1.105
Micros		9/2015	13.8 MB	10.0.40219
Micros		9/2015		10.0.50903
Dropb		27/2015		3.2.6
SVC10		2/2015	39.4 MB	
DVRVi		/8/2014		
Ext2F		/8/2014		0.51
HP Sup		/18/2014	80.8 MB	7.4.45.4
HP 3D		/18/2014	7.01 MB	4.2.9.1

3. Check the message and click OK

# DMS4 Installation on PC/Server/Workstation

 SmartWitness\_DMS4\_setup.exe ← Double Click and install

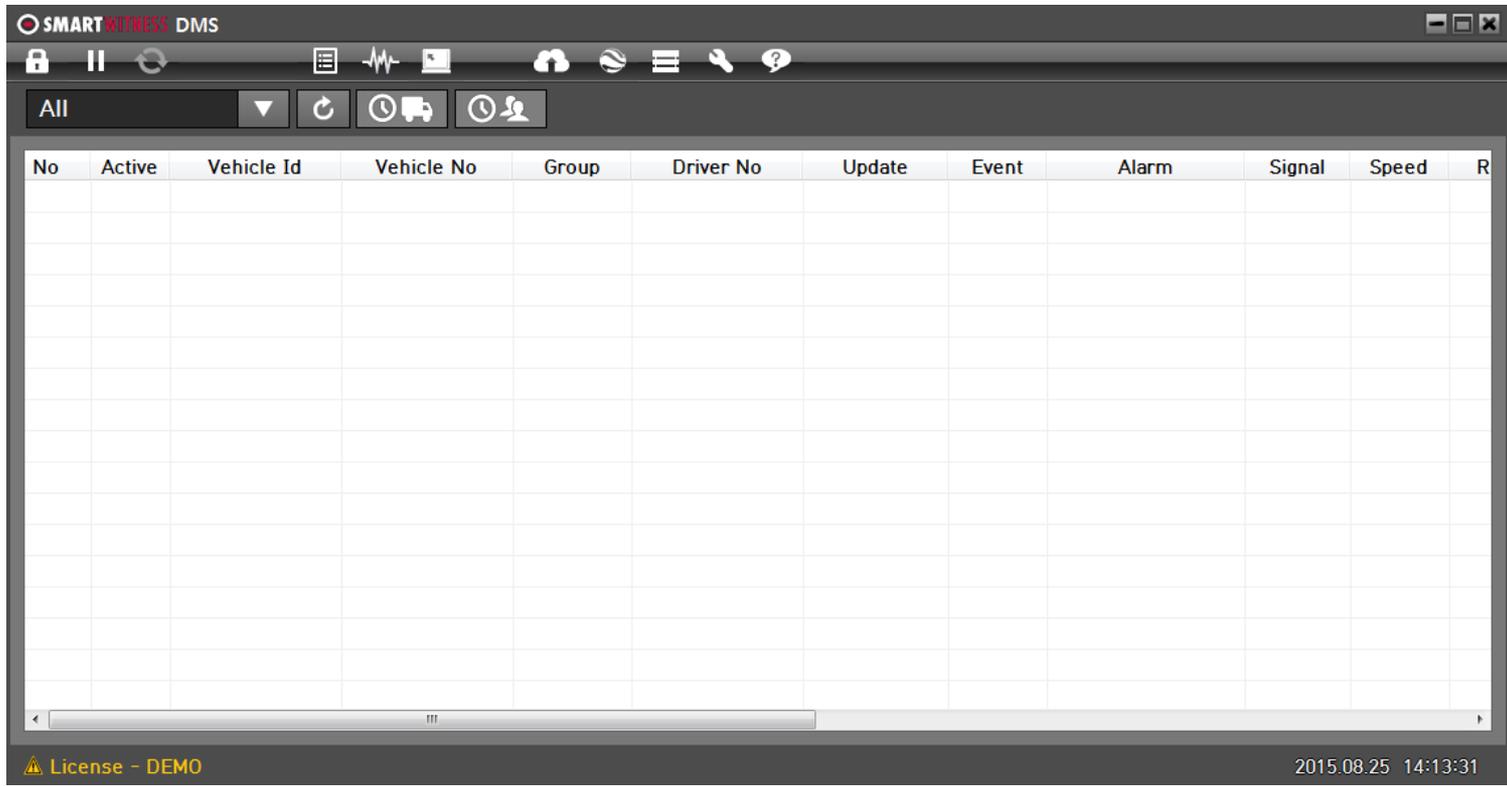


 ← Double Click and Run DMS4

# DMS4 Overview

DMS4 is the Database Management Server for KP1.

- Receives tracking & image data from KP1
- Send commands to KP1 (HD video request, live stream, configuration upload, etc)
- Analyzes the DRV log files sent from KP1 to create driving behavior reports
- Send email reports from DMS4



# DMS Software Icons

Admin login

Pause DMS

Start DMS

Analyze Driving Data (drive reports)

Database Management

DMS4 Settings

About

Select Group

Event List

Daily Search List by Vehicle No.

Launch PC Viewer software (for viewing HD upload requests)

Daily Search List by Driver

GPS Tracking Map

Remote Upgrade (firmware & configuration)

0 = connected (Online unit)  
X = not connected (offline unit)

No	Active	Vehicle Id	Vehicle No	Group	Driver ...	Update	Event	Alarm	Signal	Spe
1	X	00007	65BA7000	KP1						
2	X	00005	65BA7010	KP1						
3	X	00003	0001	Simul						
4	X	00004	0004	Simul						
5	X	00002	0006	Simul						
6	X	00002	0011	Simul						
7	X	00001	32BA1765	TAXI	-	05:50:29	7	X X X X X X X / X X	X X X X X	0
8	X	00001	32BA1769	TAXI						
9	X	00012	32BA1792	TAXI	Hank LEE	14:32:00	4	X X X X X X X / X X	X X X X X	5
10	X	00006	-							
11	X	00011	0015							
12	X	00010	1111							
13	X	00009	SantaFe							

2015.08.25 14:34:38

# Admin Log in/Log out

1. Click Admin log in “Lock” Icon

The screenshot shows the SMARTWITNESS DMS interface. At the top left, a lock icon is circled in orange. A dialog box titled "DMS 4.0" is open in the center, containing the text "Please input password.(1000~9999)", a "Password" label, an empty text input field, and an "OK" button. The background shows a table with columns: No, Active, Vehicle Id, Vehicle No, Group, Driver No, Update, Event, Alarm, Signal, Speed, R. The status bar at the bottom left says "License - DEMO" and the bottom right shows the date and time "2015.08.25 14:48:37".

2. Input Password (Default password is 4321)

3. Click OK button

4. Admin logged in successfully (Unlocked)



# Live Tracking Map

Click GPS Tracking map

The screenshot shows the SMARTWITNESS DMS interface. At the top, there is a toolbar with various icons, including a map icon highlighted by an orange box. Below the toolbar is a dropdown menu set to 'All'. The main area is divided into a table on the left and a map on the right. The table lists 10 vehicles with their status (Active/Inactive) and IDs. The map shows a geographic area around Chicago with several orange callouts labeled 'NOVEHICLEID' and one gray callout labeled '776'. A callout box points to the '776' callout on the map.

No	Active	Vehicle Id
1	0	00003
2	X	00001
3	X	00002
4	0	00009
5	0	00005
6	0	00006
7	0	00007
8	X	00008
9	0	00010
10	X	00004

Red/Orange: online vehicle

Click a vehicle then this vehicle will be at the center of map.

Gray: offline vehicle



Vehicle # is in the box. If Vehicle # is not set, the "NOVEHICLEID" will be displayed. You can add vehicle ID remotely from DMS4, see page 25

# Event List

The screenshot shows a software interface with a top toolbar containing icons for home, refresh, clock, and help. A modal window titled "Event List" is open, displaying a table of events. The table has the following data:

No	Vehicle No	Event	Time	Event...	Explanation
10	32BA1765	Shock	2015/08/25 05:00:30	6	
9	32BA1765	Shock	2015/08/25 04:41:48	5	
8	32BA1765	Shock	2015/08/25 04:27:09	4	
7	32BA1765	Shock	2015/08/25 03:27:57	3	
6	32BA1765	Shock	2015/08/25 03:16:10	2	
5	32BA1765	Shock	2015/08/25 00:51:49	1	
4	32BA1765	Shock	2015/08/25 00:22:17	0	
3	32BA1792	Shock	2015/08/25 07:19:34	3	
2	32BA1792	Shock	2015/08/25 05:30:38	2	
1	32BA1792	Shock	2015/08/25 03:58:21	1	
0	32BA1792	Shock	2015/08/25 03:26:04	0	

At the bottom of the window, there is a date dropdown menu showing "2015-08-25", a "Refresh" button, and a "Clear" button. A scroll bar is visible on the right side of the table.

Click Event List

The Event List shows all of the current day's events from all vehicles which have connected via 3G or Wi-Fi.

Click here to change the date and see the events from previous days.

Click Refresh button after change the date.

# Click Event List

Index	Vehicle No.	Event	DATE/TIME	V-Index
27	FordTrnsit	Shock	2015/03/11 23:27:34	17
26	FordTrnsit	Shock	2015/03/11 23:21:40	16
25	SWUSAB...	P.Btn	2015/03/11 21:41:43	3
24	SWUSAB...	Shock	2015/03/11 21:31:36	2
23	FordTrnsit	Shock	2015/03/11 20:55:00	15
22	SWUSAB...	P.Btn	2015/03/11 20:39:43	1
21	FordTrnsit	Shock	2015/03/11 20:28:17	14
20	FordTrnsit	Shock	2015/03/11 20:19:47	13
19	FordTrnsit	Turn	2015/03/11 20:17:02	12
18	NissanVersa	SpdO...	2015/03/11 19:48:29	11
17	NissanVersa	SpdO...	2015/03/11 19:42:01	10
16	NissanVersa	SpdO...	2015/03/11 19:40:37	9
15	NissanVersa	SpdO...	2015/03/11 19:38:57	8
14	Aurora	SpdO...	2015/03/11 17:48:02	23
13	Aurora	SpdO...	2015/03/11 17:47:01	22
12	Aurora	SpdO...	2015/03/11 17:46:01	21
11	Aurora	SpdO...	2015/03/11 17:43:37	20
10	Aurora	SpdO...	2015/03/11 17:42:10	19
9	Aurora	SpdO...	2015/03/11 17:40:42	18
8	Aurora	SpdO...	2015/03/11 17:39:42	17
7	Aurora	SpdO...	2015/03/11 17:38:42	16
6	Aurora	SpdO...	2015/03/11 17:37:42	15
5	Aurora	SpdO...	2015/03/11 17:36:12	14
4	Aurora	SpdO...	2015/03/11 17:35:12	13
3	Aurora	SpdO...	2015/03/11 17:33:24	12
2	Aurora	SpdO...	2015/03/11 17:31:30	11
1	Aurora	SpdO...	2015/03/11 17:29:43	10
0	SWUSAB...	P.Btn	2015/03/11 17:52:29	0

1. Click an Event from the list

2. Check event images

Event list from all vehicles.

Event list from a single vehicle  
 You can also reach this screen by double clicking the vehicle from the DAS main screen or by clicking a vehicle icon from the live GPS tracking map

This button opens all the images that have been requested from DMS4 "Live Command" (see page 19)

Monitoring Vehicle 2015/03/11 FordTrnsit - Tech2

Idx	Event	Time
0	Accel	01:10:06
1	Shock	01:16:19
2	Shock	01:19:14
3	Accel	01:21:55
4	Accel	01:25:09
5	Accel	15:22:30
6	Accel	15:23:30
7	Accel	15:52:21
8	Shock	15:57:10
9	Accel	16:24:33
10	Shock	16:39:19
11	Shock	16:40:19
12	Turn	20:17:02
13	Shock	20:19:47
14	Shock	20:28:17
15	Shock	20:55:00

Camera1



Camera2



Event EDA Live 3/11/2015 Request Video < > >>

**INFORMATION**

Time: 2015/03/11 15:23:30  
 Index: 6 Type: Accel

**STATUS**

GPS	0	Lat	41.98	Lon	-87.76	Speed	18mph	Hd	43	Alarm	1	2	3	4	5	6	7	Signal	L	R	Brk	Rvs	EnS
											X	X	X	X	X	X	X		X	X	X	X	X

SensorSpeed: 47mph RPM: 270 r/min

Open All Requested Image(s)

# Event Playback Control Buttons

Monitoring Vehicle 2015/03/11 FordTrnsit - Tech2

Event	Snapshot
Idx	Event Time
0	Accel 01:10:06
1	Shock 01:16:19
2	Shock 01:19:14
3	Accel 01:21:55
4	Accel 01:25:09
5	Accel 15:22:30
6	Accel 15:23:30
7	Accel 15:52:21
8	Shock 15:57:10
9	Accel 16:24:33

Camera1

Camera2

3/11/2015

Request Video < > |

d	Hd	Alarm	1	2	3	4	5	6	7	Signal	L	R	Brk	Rvs	EnS
h	43		X	X	X	X	X	X	X		X	X	X	X	X

70 r/min

Double Click image to open expanded view

Event Image size is 320x240. Maximum 20 images per camera, per event



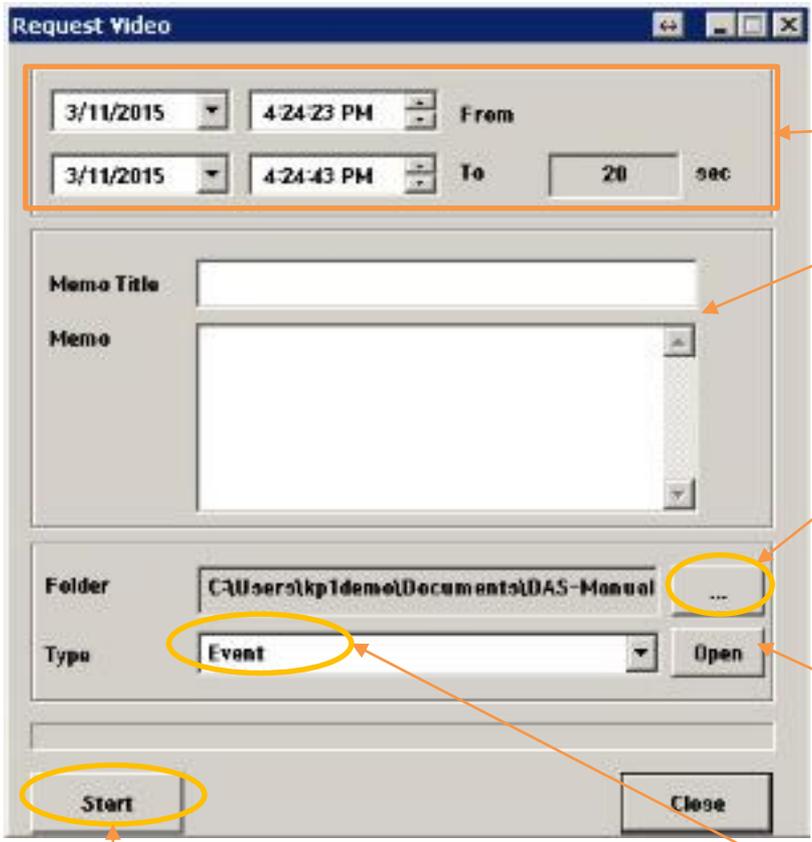
Request Original Video File

Previous Frame

Play looping video of all images

Next Frame

# Request Original Video from KP1 (MDT file)



1) Select the date and time.  
You can download up to 20sec original video at one time.  
**If you highlight an event from the Event List and then click "Request Video", it will default to the Event time.**  
  
Optional: you can add a title and a memo note describing the event for easy identification when using the PC Analysis software to view the uploaded video.

2) Select backup folder location

Open downloaded Video folder using Windows Explorer. MDT files will open with the PC Analysis software

3) Select video type. This helps keep your requested videos organized for easier retrieval.

4) Click Start to begin the download from KP1. **KP1 must be online to request a video**

# Playback of Video Requested from KP1

1) Click PC Viewer icon on the DMS Main Screen

2) Click "Backup Data List and Export" Icon

4) You will see all requested videos here  
You can select the type of event here (which you specified on the Request Original Video screen)

3) Select folder  
The default location for requested original video is c:\User\name\Documents\DAS-ManualBackup

No.	Date/ Time	Vehicle ID	Driver ID	Memo Title
<input checked="" type="checkbox"/> 0001	2015.07.21 02:02:50	Truck 2 b	00001	Cell Phone talking
<input checked="" type="checkbox"/> 0002	2015.07.22 03:07:59	NOVEHIC...	00001	

Folder: C:\Users\administrator\Documents\DAS-ManualBackup

# Daily Route Vehicle Tracking Information

The screenshot displays the SMARTWITNESS DMS interface. On the left, a table lists vehicle events. In the center, there are camera feeds for 'Camera1' and 'Camera2'. On the right, a map of Chicago shows the vehicle's route in red. A callout box '2) Click Map' points to the map area. Below the map, there is an information panel for the selected vehicle 'Ozinga1'.

No	Active	No	Event	Time
1	X	0	Shock	04:39:50
2	X	1	Shock	06:07:40
3	X	2	Shock	06:15:08
4	X	3	Shock	06:22:50
5	X	4	Shock	08:20:03
6	X	5	Shock	08:57:41
7	X			
8	X			
9	0			
10	X			
11	X			
12	X			
13	X			

**Information**  
 2015/08/27 06:15:08  
 Index: 2 Type: Sh  
**Status**  
 GPS 0 Lat 41.66  
 SensorSpeed: 0mph

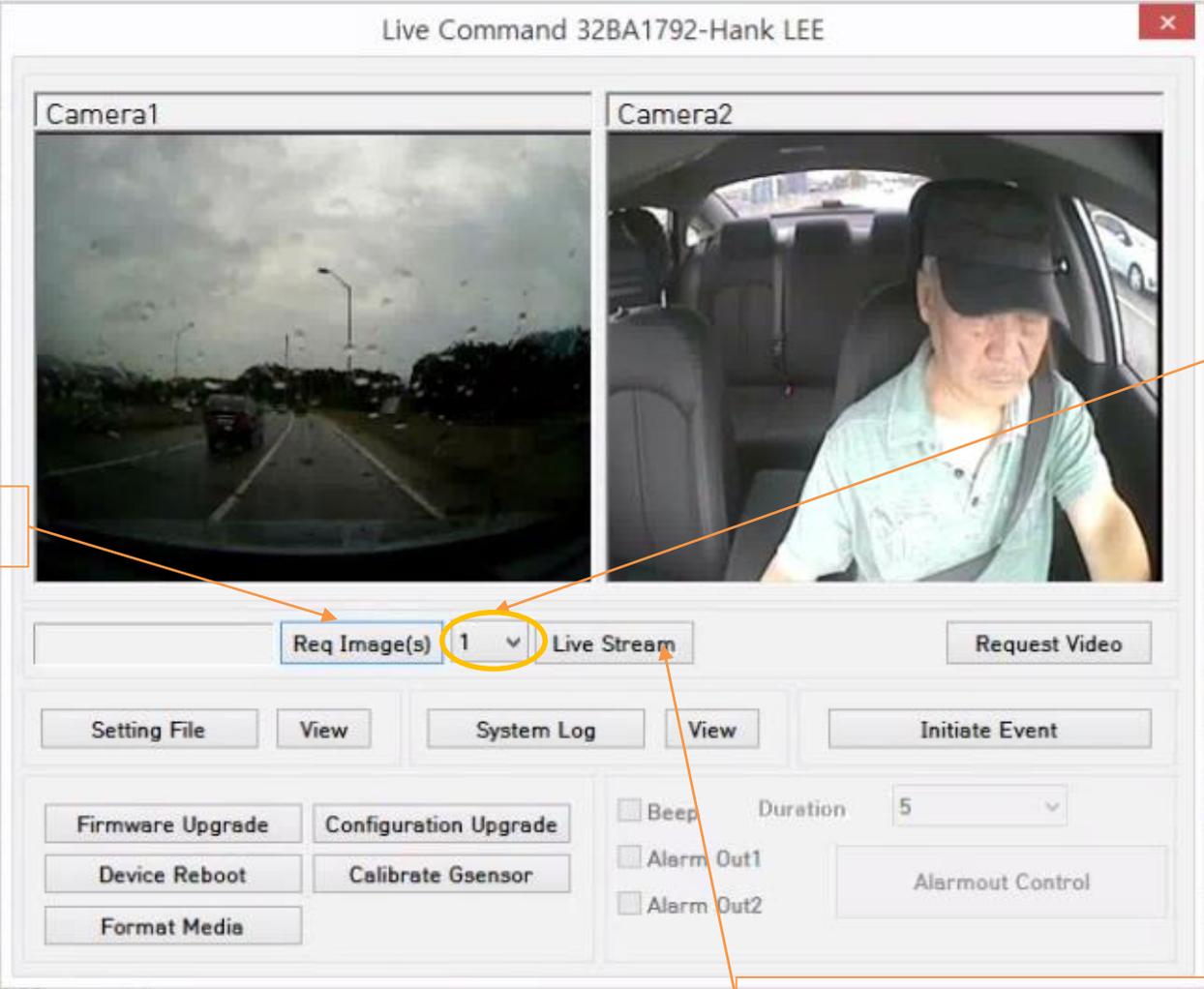
1) Double click on any vehicle to see the daily route. The Live Tracking Map will change from live tracking, to daily route history automatically

\*You can change the date on the Event Window to see other day's routes

# Live Communication with active KP1 device

The screenshot shows the SMARTWITNESS DMS interface. On the left, a table lists active vehicles. An orange arrow points from the first row to a callout box: "1) Double click on an active vehicle". The main window displays a "Monitoring Vehicle 2015/08/28 JKHack1 - TestDrvr1" window. At the top of this window, there are tabs for "Event", "EDA", "Live", and "Command". An orange arrow points from the "Live" tab to a callout box: "2) Click 'Live' Tab". Below the tabs, there are two camera views: "Camera1" showing a live video feed of a street scene, and "Camera2" which is currently blank. An orange arrow points from the "Command" button to a callout box: "3) Click Command". Below the camera views, there are several data sections: "Device" (Active 0, Last Received: 2015/08/28 11:50:57, Vehicle Id: 00001, Vehicle No: JKHack1, Driver Name: TestDrvr1, Device Id: K2MB61400248), "Status" (GPS 0, Lat: 38.62, Lon: -121.54, Speed: 0mph, Hd: 0, Alarm: XXXXXX, Signal: L R B R E-0), "Sensor" (Speed: 0mph, RPM: 000 r/min, X: -0.0860, Y: -0.0730, Z: 1.1110, Event Count: 1), and "Health" (Record:0, Camera Signal:0, SD1 Err).

# Live Commands



2) Click Request Image(s)

1) Click and set Snapshot number.  
**1= Send 1 picture from each camera**  
**5= Send 5 pictures from each camera**

3) Click "Live Stream" to send continuous images until you click "stop". KP1 will send approximately 1 frame every 2 seconds on 3G network speeds.

# Live Streaming Images

Monitoring Vehicle 2015/08/25 22BA1792 - Hank LEE  
Live Command 32BA1792-Hank LEE

Event	Snapshot
No	Event
0	Shock 0
1	Shock 0
2	Shock 0
3	Shock 0

Camera1



Camera2



Req Image(s) 1 **Stop** Processing Snapshot Request Video

Setting File View System Log View Initiate Event

Firmware Upgrade Configuration Upgrade  
Device Reboot Calibrate Gsensor  
Format Media

Beep Duration 5  
 Alarm Out1  
 Alarm Out2 Alarmout

Open Images Folder

Press Stop button to finish Live Stream

All requested images and live stream images will be saved on the server. You can open them by clicking "Open Images Folder" button on the Event Page

# View the Existing Settings on KP1

The screenshot shows the SmartWitness web interface for a camera named 'Camera1'. The interface includes a live video feed, a 'Req Image(s)' dropdown set to '1', and several control buttons: 'Setting File', 'View', 'System L', 'Firmware Upgrade', 'Configuration Upgrade', 'Device Reboot', 'Calibrate Gsensor', and 'Format Media'. The 'Setting File' and 'View' buttons are circled in yellow. An orange callout box points to the 'Setting File' button with the instruction: '1) Click "Setting File" and wait a few moments to give KP1 time to send it back to the server.' Another orange callout box points to the 'View' button with the instruction: '2) Click "View" to see the setting file on NotePad.' A third orange callout box contains the text: '3) Check the file directory or save a copy to the server and open the setting.ini file using "Configuration Tool KP1"'. Below this, it says: 'Then you can adjust the settings to your liking and send the updated setting.ini file to the KP1 using "configuration update" feature (see page 25) or the mass OTA configuration update (see page 36).' A red-bordered window titled 'setting - Notepad' is overlaid on the interface, showing the contents of the 'setting.ini' file. The file contains various configuration parameters for the camera, including device information, channel settings, video output, and sensor configurations.

1) Click "Setting File" and wait a few moments to give KP1 time to send it back to the server.

2) Click "View" to see the setting file on NotePad.  
3) Check the file directory or save a copy to the server and open the setting.ini file using "Configuration Tool KP1"  
Then you can adjust the settings to your liking and send the updated setting.ini file to the KP1 using "configuration update" feature (see page 25) or the mass OTA configuration update (see page 36).

```
setting - Notepad
File Edit Format View Help
[[[DEVICE]]
CH0_ENABLE=1
CH0_TITLE=\u0043\u0041\u0044\u0031
CH1_ENABLE=0
CH1_TITLE=\u0043\u0041\u0044\u0032
TV_OUT_ENABLE=0
VIDEOSTD=0
GSCUSTOM=0
ACCSEN=11
ACCSENX=5
ACCSENY=5
ACCSENZ=5
THRESHOLD_X=600
THRESHOLD_X_HIGH=1000
THRESHOLD_Y=600
THRESHOLD_Y_HIGH=1000
THRESHOLD_Z=2000
THRESHOLD_Z_HIGH=2000
HZ_X=4
HZ_Y=7
HZ_Z=20
GSSPEED=1
Z_AXIS_USE=0
CARPULSETYPE=8
CARPULSESTD=1
CARPULSESTDVAL=637
RPMPLSETYPE=4
POWERTYPE=0
AUDIO_OUT_ENABLE=0
SPEED_SOURCE=0
[[[RECORD]]
CH0_NORMALFPS=5
CH0_RESOLUTION=1
CH0_QUALITY=1
CH1_NORMALFPS=15
CH1_RESOLUTION=3
CH1_QUALITY=1
```

# View the Detailed System Log Files on KP1

Monitoring Vehicle 2015/08/28 FordTrnst1 - Jorge

Event No	Event	Snapshot
0	Alarm In	1
1	Geofence	1
2	Shock	1

Camera1

3) Select Sort order  
"TIME" is recommended so you can see the log in chronological order.

5) Two windows open. The first log is Network Log. (the System log window is behind Network Log)

6) ) Once you close the Network Log window, you'll see the System Log window behind it.

4) Click Load Log List button

1) Click "System Log" and wait a few seconds while KP1 sends it back to the server.

2) Click to see the system log file

Malibu Log Viewer

LogFile Path: c:\dvr\dms\dms\_db4\vehicle\00003\err

Last Address: 11968

Version: 2.0.0.1

Sort Order:  INDEX  TIME  NONE

Load Log List

Setting File View System Log View

Firmware Upgrade Configuration Upgrade

Device Reboot Calib

Format Media

Beep Duration 5

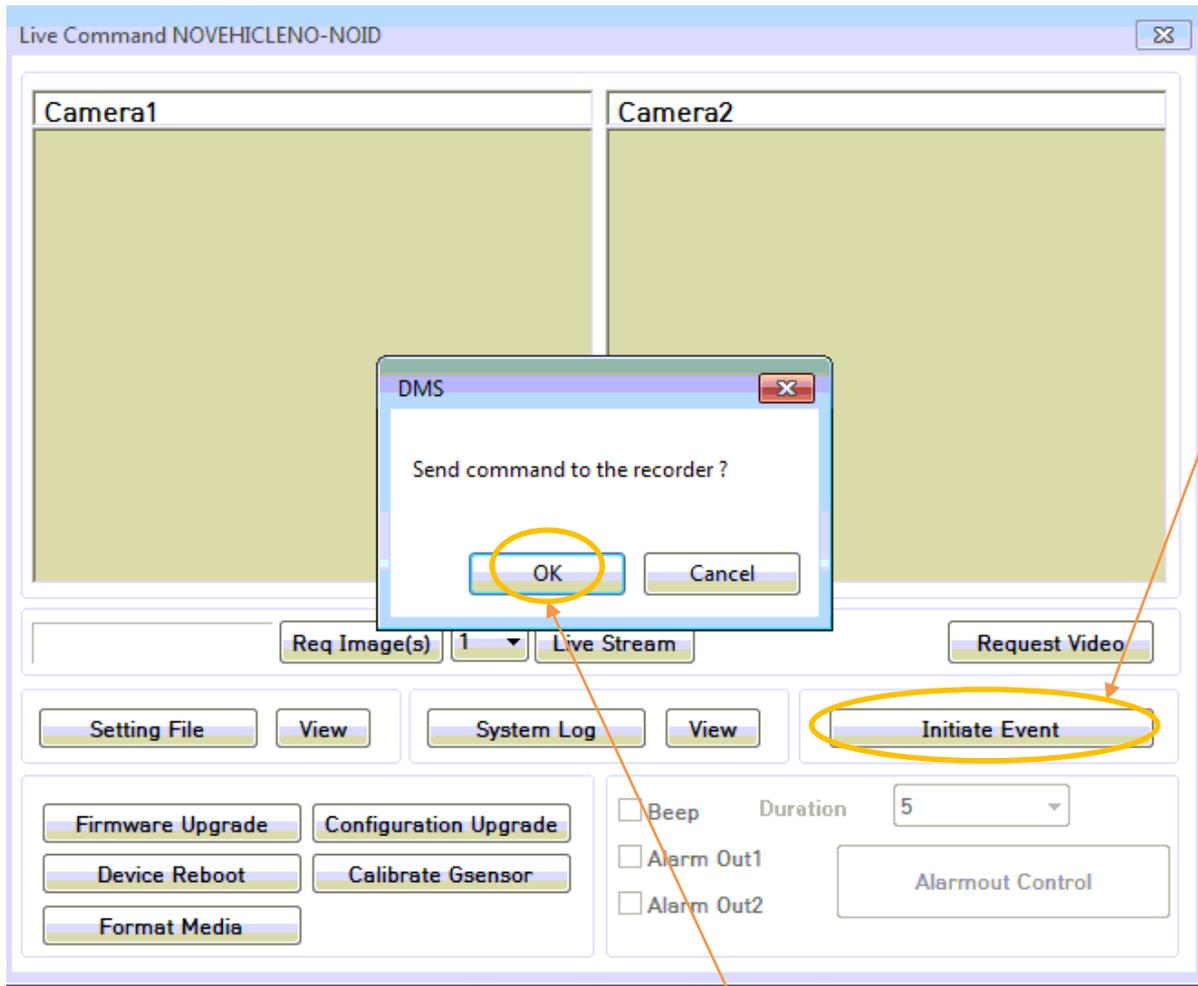
Alarm Out1

Alarmout Control

Open Images Folder Record-U, Camera Signal-U U

**NOTE: KP1 will send two log files (1<sup>st</sup> log is related with Network, and 2<sup>nd</sup> log is related with System)**

# Initiate an Event Recording from DMS4 Server



1) You can make an event recording from DMS4 server by pressing the "Initiate Event" button.

Monitoring Vehicle 2015/03/12 Dodge

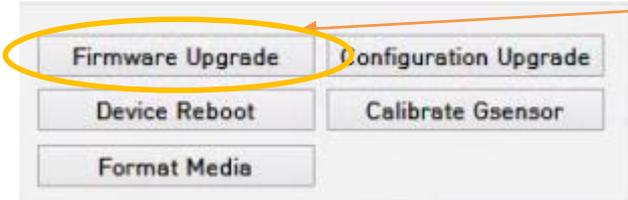
Event	Snapshot	
Idx	Event	Time
0	ServerTrg	00:41:58

2) Click OK to send the "initiate event" command to KP1.

Then KP1 will send event images to server. This will display in the Event list along with the other events. NOTE: the original recording file on the KP1 will be at 1 FPS recording.

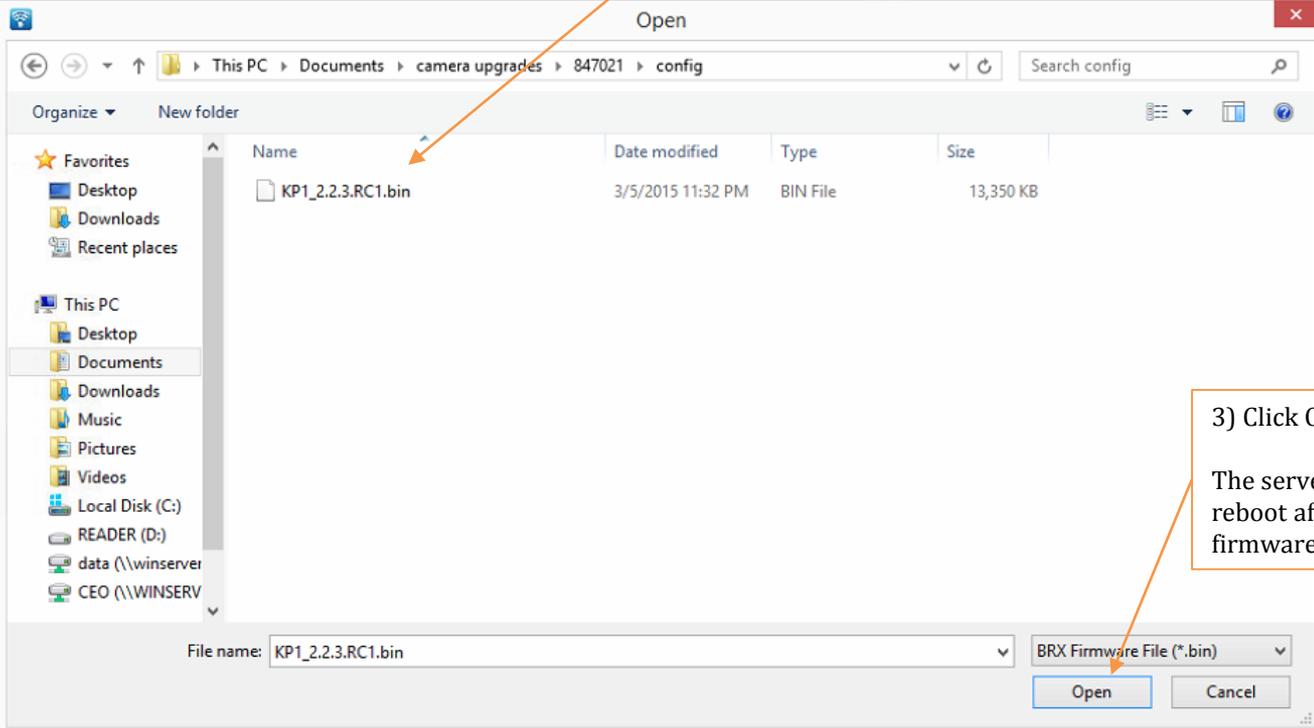
# OTA (Over The Air) Firmware Update

\*For mass OTA firmware update to multiple vehicles at the same time OR if a vehicle is offline and you cannot access live FW update, see page 36



Upgrading the KP1 firmware remotely.  
1) Press Firmware upgrade

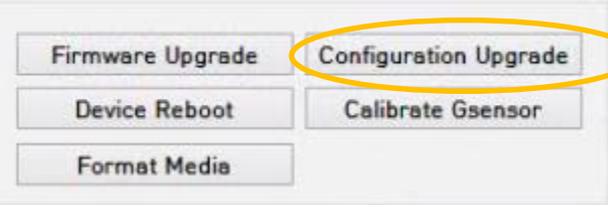
2) Select new firmware  
Most updated KP1 firmware can be found online:  
<http://smartwitness.com/usa/download-software.html>



3) Click Open  
The server sends the new firmware. Then KP1 will reboot after receiving the new firmware. The new firmware will apply during the boot-up sequence

# Remote Setting Configuration, Changing Vehicle No., & Changing Driver Name

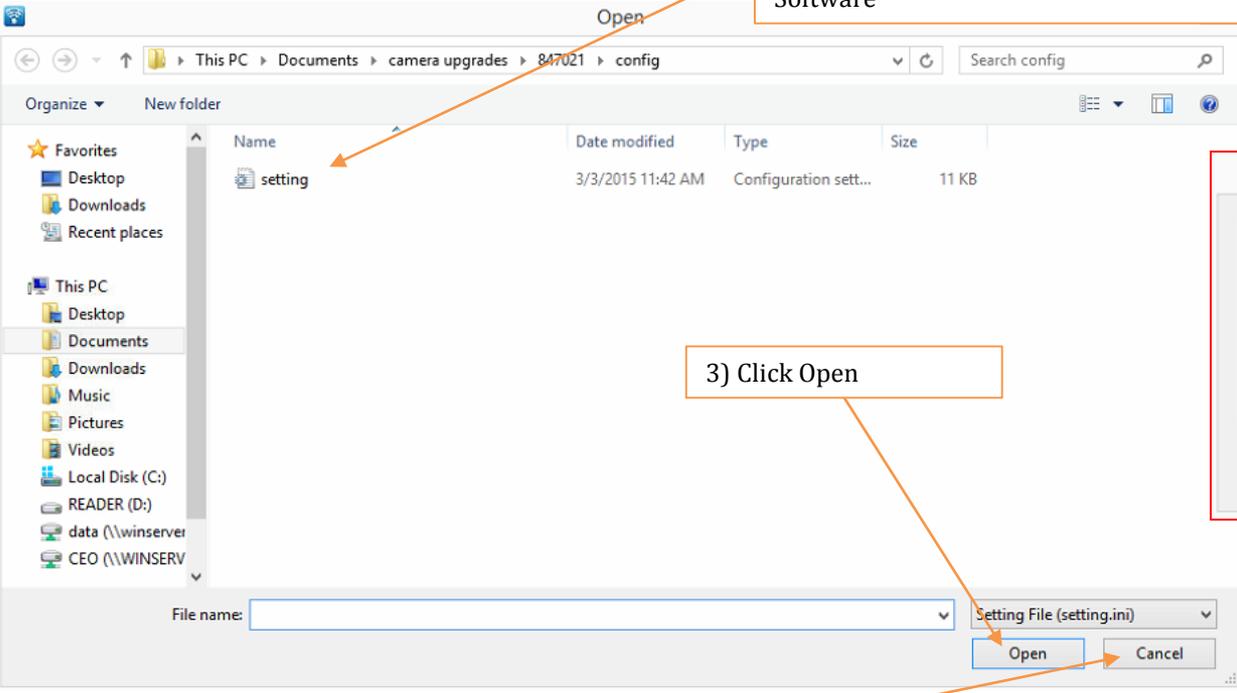
\*For mass OTA settings update to multiple vehicles at the same time OR if a vehicle is offline and you cannot access live setting update, see page 36



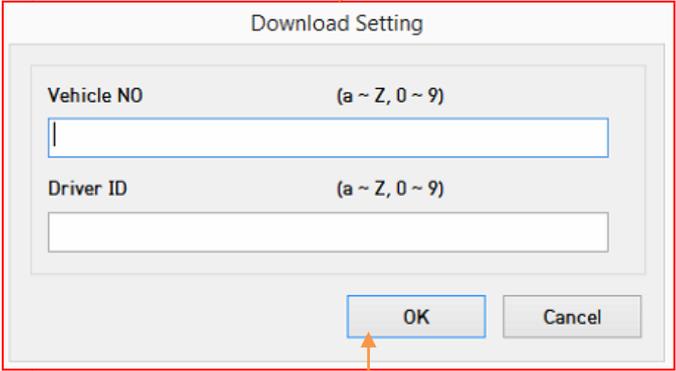
**Changing the KP1 settings remotely.**  
1) Click Configuration upgrade button

2) Select new setting.ini file which you saved using the Configuration Tool Software

4) You will see below window.  
If you hope to change Vehicle No. and Driver Name then input here. If you don't want to change Vehicle No. and Driver ID then leave these fields blank and click "OK".



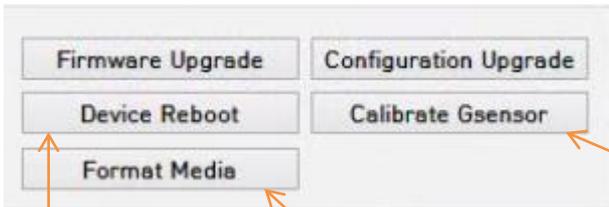
3) Click Open



5) Click OK. The server then sends the new settings to KP1. KP1 will will reboot after the settings have been fully received from server.

**NOTE: If you want to ONLY change Vehicle NO and Driver ID, press "Cancel" and then input Vehicle NO and Driver ID. You don't need to select new setting.ini file to simply change the Vehicle NO and Driver ID**

# Reboot and Remote G-sensor Calibration and Remote Format



Press Device Reboot.  
Then KP1 will restart.

You need to calibrate the G-Sensor after installing the KP1. This can also be accomplished by pressing the small red button ABOVE the panic button on the back of the KP1

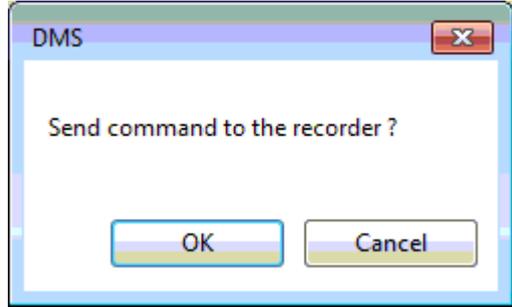
Please check the vehicle using Live Stream.

When car is not moving (and the vehicle is on a flat surface)  
Press Calibrate G-Sensor button

**This G-Sensor calibration is only needed the first time KP1 is used.**



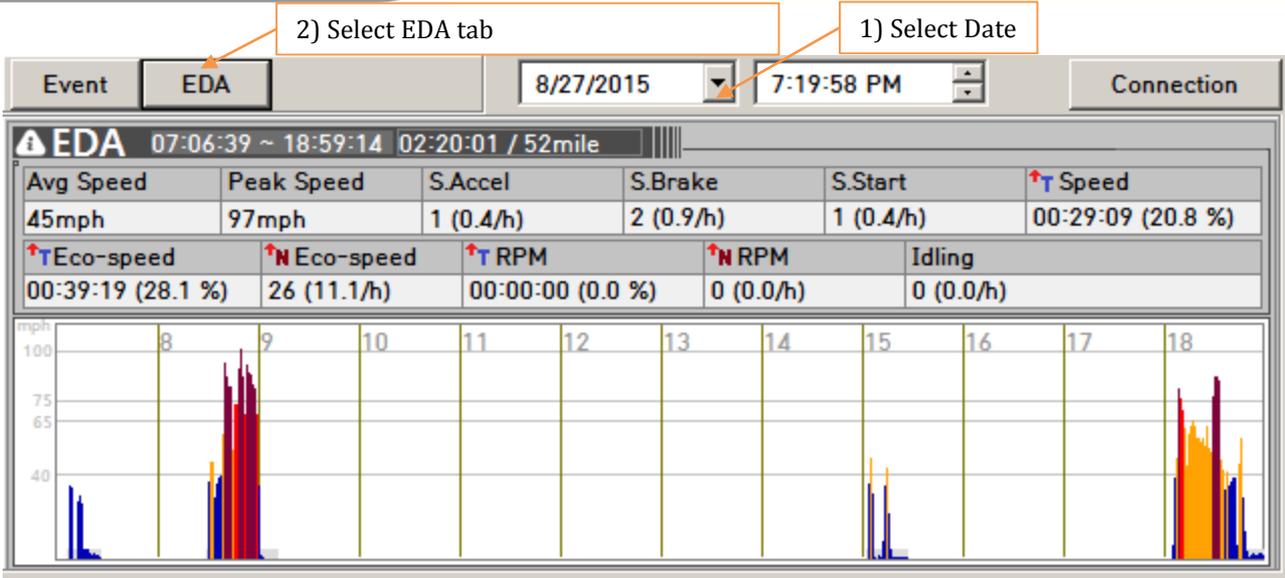
Press Format Media to format the SD card.  
Then you will see below window. If you hope to format the SD card then press OK button.



Once you press OK button.  
Then KP1 will reboot and format the SD card. It will takes 3~10minutes.

Existing configuration settings will be backed up on the KP1 during the Format Media process

# EDA (Quick view of Event Data Analysis data)



Blue: up to 40mph  
 Orange: 41-65mph  
 Red: 65 to 75mph  
 Maroon: 75mph+

This data is for 1 day (00:00:00~23:59:59)  
 Total driving time: 2hours 20min 01sec.  
 Total driving distance: 52 miles.

Average Speed: 45mph,  
 Top Speed: 97mph  
 Quick Acceleration: 1times (0.4 times per hour)  
 Sudden Brake: 2times (0.9 times per hour)  
 Sudden Start: 1 times (0.4 times per hour)  
 Over Speed duration: 29min 9sec.  
 Over Eco-Speed driving duration: 39min 19sec.  
 Over Eco-Speed counts: 26 (11.1 times per hour)  
 Over RPM driving hour: There is no RPM data.  
 Over RPM: There is no RPM data.  
 Idling: There is no RPM data.

NOTE: You have to use KP1-INT2 Junction Box power accessory to connect RPM cable to receive RPM data. Then you can check RPM and Idling time.





# Driver ECO Ranking Report

1) Select Driver ECO Ranking



2) Select Date and then click Data Search button.



3) Then you will see below Driver ECO Ranking report and if you want you can print this report

The screenshot shows a window titled "Monthly report" with a close button. The main content is a table titled "Driver ECO Ranking".

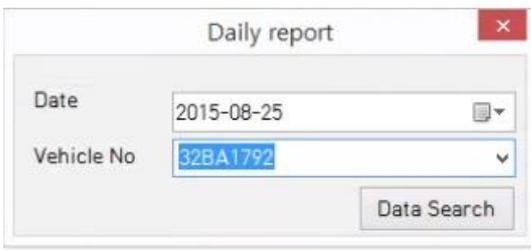
Duration	2015/08/01 ~ 2015/08/25	Sort By	High to Low
<b>Total</b>			
1, 65BA7010	100	1, 32BA1792	304.11 Km
2, 0011	100	2, 32BA1769	266.33 Km
3, 1111	100	3, 32BA1765	226.14 Km
4, 0015	100	4, 0011	134.61 Km
5, SantaFe	92	5, 0015	30.93 Km
<b>Safety</b>			
1, 0011	100	1, 32BA1792	15:59:30
2, 1111	100	2, 32BA1769	12:38:11
3, 0015	100	3, 32BA1765	10:54:00
4, 65BA7010	100	4, 0011	10:52:34
5, SantaFe	94	5, 65BA7010	03:02:16
<b>Economic</b>			
1, 1111	100		
2, 0015	100		
3, 65BA7010	100		
4, 0011	100		
5, 32BA1792	93		

# Daily Report

1) Select Daily Detailed Info



2) Select Date & Vehicle # and then click Data Search button.



3) Daily Report is generated



# Daily report buttons

Change date and vehicle No.

Zoom Graph

Print Daily Safety Report

Manual Mode

Data period: 2015.08.25 00:00 ~ 2015.08.25 16:14  
 Vehicle No: 32BA1792 / B2MA31400287  
 Duration: 17:36:07  
 Distance: 246.52 Km  
 Peak Speed: 126 km/h  
 Avg Speed: 39.35

S.Accel: 0 0.00/hour  
 S.Brake: 1 0.09/hour  
 S.Start: 0 0.00/hour  
 Speeding: 00:21:21 (3.07 %)  
 Alarm: 0 0.00/hour

Speeding(ECO): 01:09:30  
 Speeding(ECO): 110 9.50  
 Excess RPM: 00:00:00  
 Excess RPM: 0 0.00/hour  
 Idling: 0 0.00/hour

200  
 150  
 Driving / Idling  
 Speeding(ECO) / Speeding  
 Eco-RPM / Excess RPM

Check the location on the map

Save file as CSV format  
 (for archiving or importing data  
 into another application)

Save to CSV File

CSV File Folder:  
 C:\Users\mhchung\Documents\DMS-Export

CSV File Name:  
 2015.08.25\_VEHICLE\_-FRAMEINFO

Start Cancel Close

Print

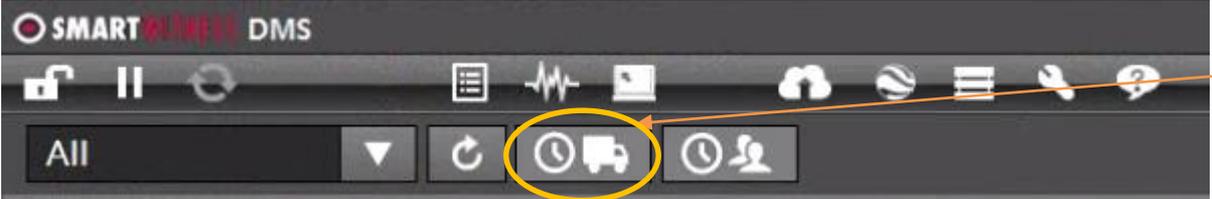
### Daily Safety Report

Data period	2015/08/25 00:00 ~ 2015/08/25 16:25		Manager	Manager	Driver
Vehicle No	32BA1792	Drive Duration	11:47:07	Total	89
Device Id	B2MA31400287	Distance	249.93 Km	Grade	B

S.Start	0.00	100	A	0	cnt.
S.Accel	0.00	100	A	0	cnt.
S.Brake	0.08	100	A	1	cnt.
Speeding Cnt	3.22	50	E	38	cnt.
Speeding Dur	3.02	%	100	A	00:21:21
Peak Speed	126	km/h	50	E	
Avg Speed	39	km/h	80	B	
Alarm	0.00	100	A	0	cnt.
Safety Score	85 B				
S.Start	0.00	100	A	0	cnt.
S.Accel	0.00	100	A	0	cnt.
S.Brake	0.08	100	A	1	cnt.
Speeding(ECO) Cnt	9.50	50	E	112	cnt.
Speeding(ECO) Dur	10.02	%	100	A	01:10:51
Excess RPM Cnt	0.00	100	A	0	cnt.
Excess RPM Dur	0.00	%	100	A	00:00:00
Idling	0.00	100	A	0	cnt.
ECO Score	93 A				
Total	89 B				

Print time: 2015.08.25 16:26:08

# Daily Search by Vehicle No



1) Click Search Icon

2) Click Date

3) Click Data Search

Daily Search List - Vehicle

Date: 2015-08-25

Data Search

Type: All

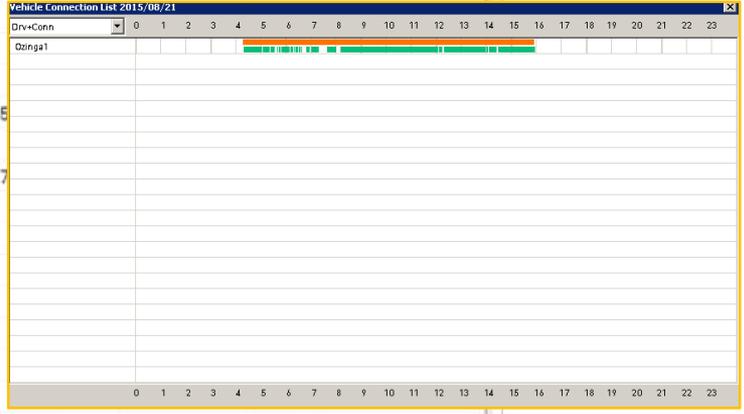
Vehicle Connection List

No	Active	Vehicle Id	Vehicle No	Group	Driver No	Update	Event	Alarm
1	X	00006						
2	X	00011						
3	X	00010						
4	X	00009						
5	X	00007						
6	X	00005						
7	X	00003						
8	X	00004						
9	X	00002						
10	X	00008						
11	O	00013	32BA1765	TAXI	-	05		
12	X	00001	32BA1769	TAXI				
13	O	00012	32BA1792	TAXI	Hank LEE	17		

4. Change search option

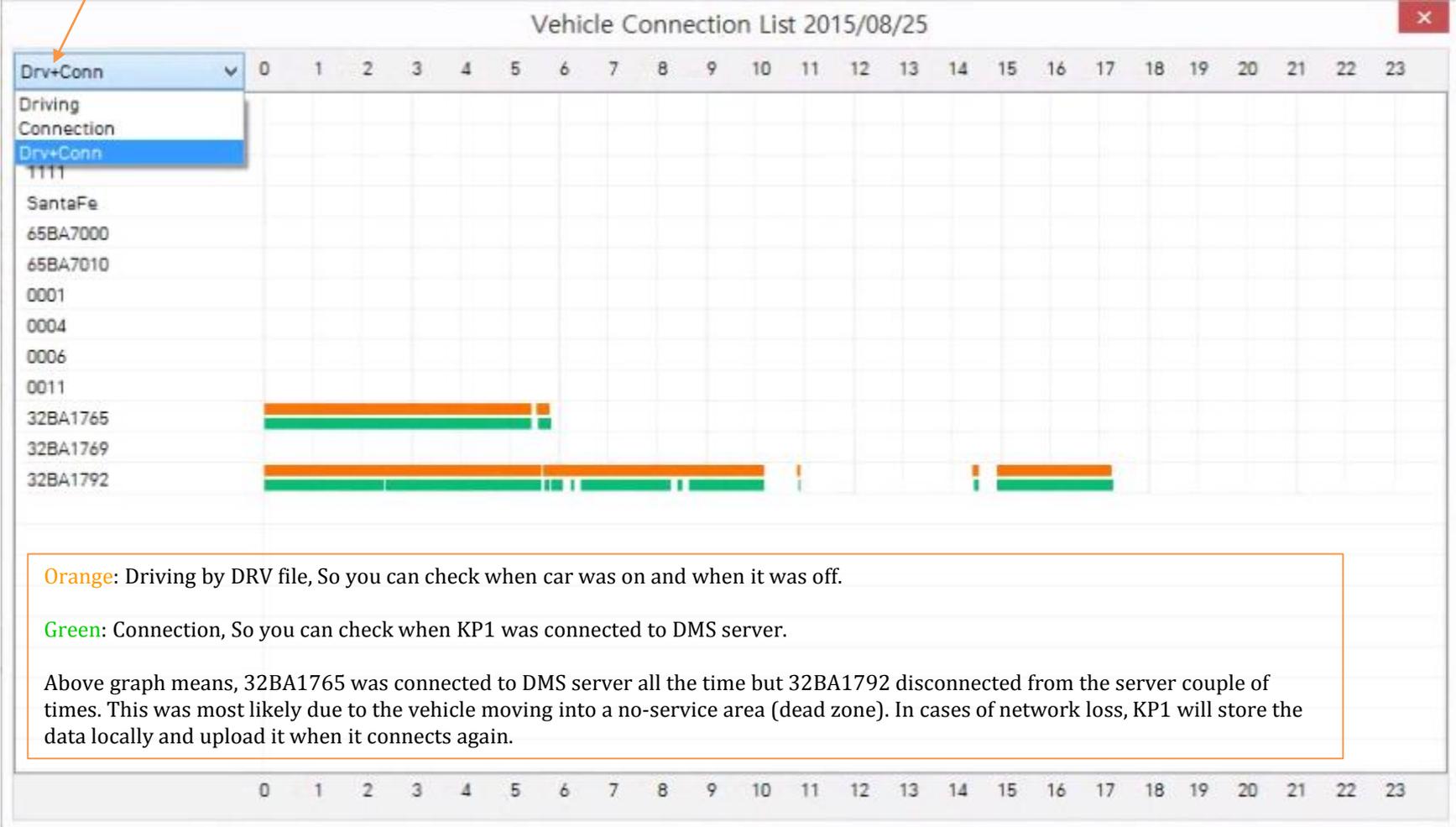
- All
- Active
- NoActive
- Need to check vehicles
- Unsafe driving vehicles

Press Vehicle Connection List button to check the network connection. Set to "DRV+Conn" to see the driving time (orange) compared to the 3G or Wi-Fi network connection time (green)



# Vehicle Connection List

Select options here, 1) Driving Time 2) Connection = Network Connected to DMS4 (3G or WiFi) 3) Driving + Connection (side by side)



**Orange:** Driving by DRV file, So you can check when car was on and when it was off.

**Green:** Connection, So you can check when KP1 was connected to DMS server.

Above graph means, 32BA1765 was connected to DMS server all the time but 32BA1792 disconnected from the server couple of times. This was most likely due to the vehicle moving into a no-service area (dead zone). In cases of network loss, KP1 will store the data locally and upload it when it connects again.

# Daily Search by Driver No



1) Click Search Icon

2) Click Date

3) Click Data Search

Daily Search List - Driver

Driver No	Driver Name	Total	Safety	ECO	Drive Duration	Distance	Vehicle No
Hank LEE	Hank LEE	93	93	93	14:55 ~ 17:25 02:30:46	47.58 Km	32BA1792

# Mass OTA (Over the Air) KP1 Updates (Firmware & Config)

1) Click Remote Upgrade Icon

2) Click Reservation for either Configuration OR Firmware

NO	Vehicle No.	Group	Reservation	Firmware file
<input type="checkbox"/>	1	0001	KOREA	
<input type="checkbox"/>	2	0002	KYOTO	
<input checked="" type="checkbox"/>	3	32BA1769	TAXI	
<input checked="" type="checkbox"/>	4	32BA1792	TAXI	
<input checked="" type="checkbox"/>	5	0003	TOKYO	

3) Check Vehicles

4) Click and select upgrade file.  
**Configuration: "setting.ini"**  
**Firmware: "KP1.2.X.X.bin"**

5) Click Register

6) You will see a success message

Once KP1 is connected then Server will upload the new firmware or configuration file KP1 will be upgraded automatically upon the next power cycle.

DasServer  
 Upload reservations has been completed.  
 OK

# DMS Database Management

1) Click Database Management

2. Click here to check the current database size

Database delete by date: All data prior to the date selected will be deleted

Delete entire data base

Set Group per vehicle

Set pre-created Geofence per vehicle. You can create Geofence at DMS Setting menu.

Delete vehicle from DMS4

Input Driver Information

Set Analysis Type for reports You can set the Analysis Type from Analysis Criteria Settings at DMS settings.

Recorder Replacement is used when installing a replacement KP1 into an existing vehicle.

EDA Data MGMT

DB Path: D:\DVR\DMS\DMS\_DB.

DB drive total size: 2306.2 GB

DB data size: [ -> ]

DB drive free size: 2290.8 GB

Delete DB

2015-08-25 [ v ] Delete previous data

Delete whole DB

Vehicle Management

Select all Unselect all

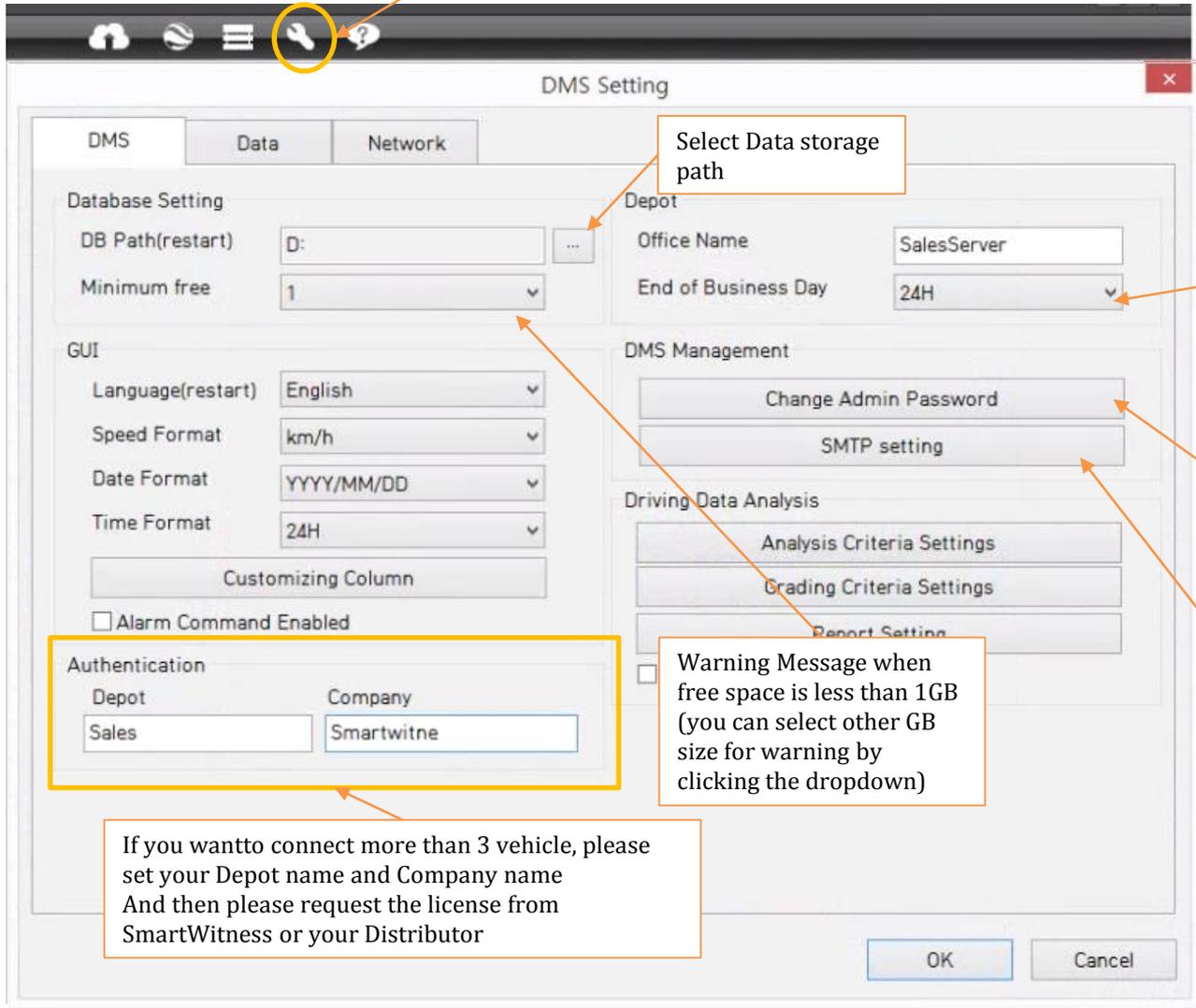
No	Vehicle Id	Vehicle No	Device Id	Group	Analyze Type	Geofence
<input type="checkbox"/>	2	00011	0015	AABBCCDD0015		A
<input type="checkbox"/>	3	00010	1111	AABBCCDD0003		A
<input type="checkbox"/>	4	00009	SantaFe	K2MB61400124		A
<input type="checkbox"/>	5	00007	65BA7000	B2MA11500068	KP1	
<input type="checkbox"/>	6	00005	65BA7010	K2MB61401506	KP1	
<input type="checkbox"/>	7	00003	0001	AABBCCDD0001	Simul	
<input type="checkbox"/>	8	00008	0004	AABBCCDD0004	Simul	
<input type="checkbox"/>	9	00006	0006	AABBCCDD0006	Simul	
<input type="checkbox"/>	10	00008		Simul		kyoto2,KyotoC
<input type="checkbox"/>	11	00013		TAXI		
<input type="checkbox"/>	12	00001		TAXI		sn,
<input type="checkbox"/>	13	00012	32BA1792	B2MA31400287	TAXI	

Set Group Set Geofence Set Analysis Type Recorder Replacement Delete

Driver Management Close

# DMS Settings: DMS Tab

Click Settings button



Select Data storage path

Select the end of a day.  
 24H: the end of a day is Midnight and new working day starts from 00:00:01.  
 2H: the end of a day is 2 o'clock and new working day starts from 02:00:01

Change DMS4 password. **Initial password is 4321.**

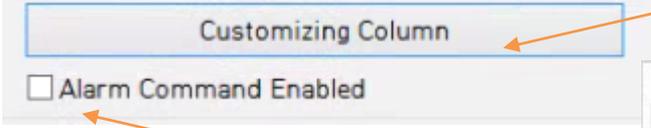
Enter SMTP information to send email reports from DMS4.  
**Set the email recipients on the "Network Tab"**

Warning Message when free space is less than 1GB (you can select other GB size for warning by clicking the dropdown)

If you want to connect more than 3 vehicle, please set your Depot name and Company name. And then please request the license from SmartWitness or your Distributor

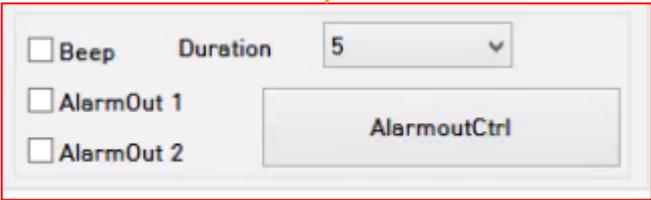
# GUI (Main screen and Live Command screen) Setting

1. In the "DMS Tab" click the **Customizing Column** button



Check this box to control Alarm out from server.  
 Then you can use below command at Live Command screen to send alarm output remotely from DMS4 server

**Alarm Out function requires KP1-INT1-S or KP1-INT2 power adaptor**



Customizing Column

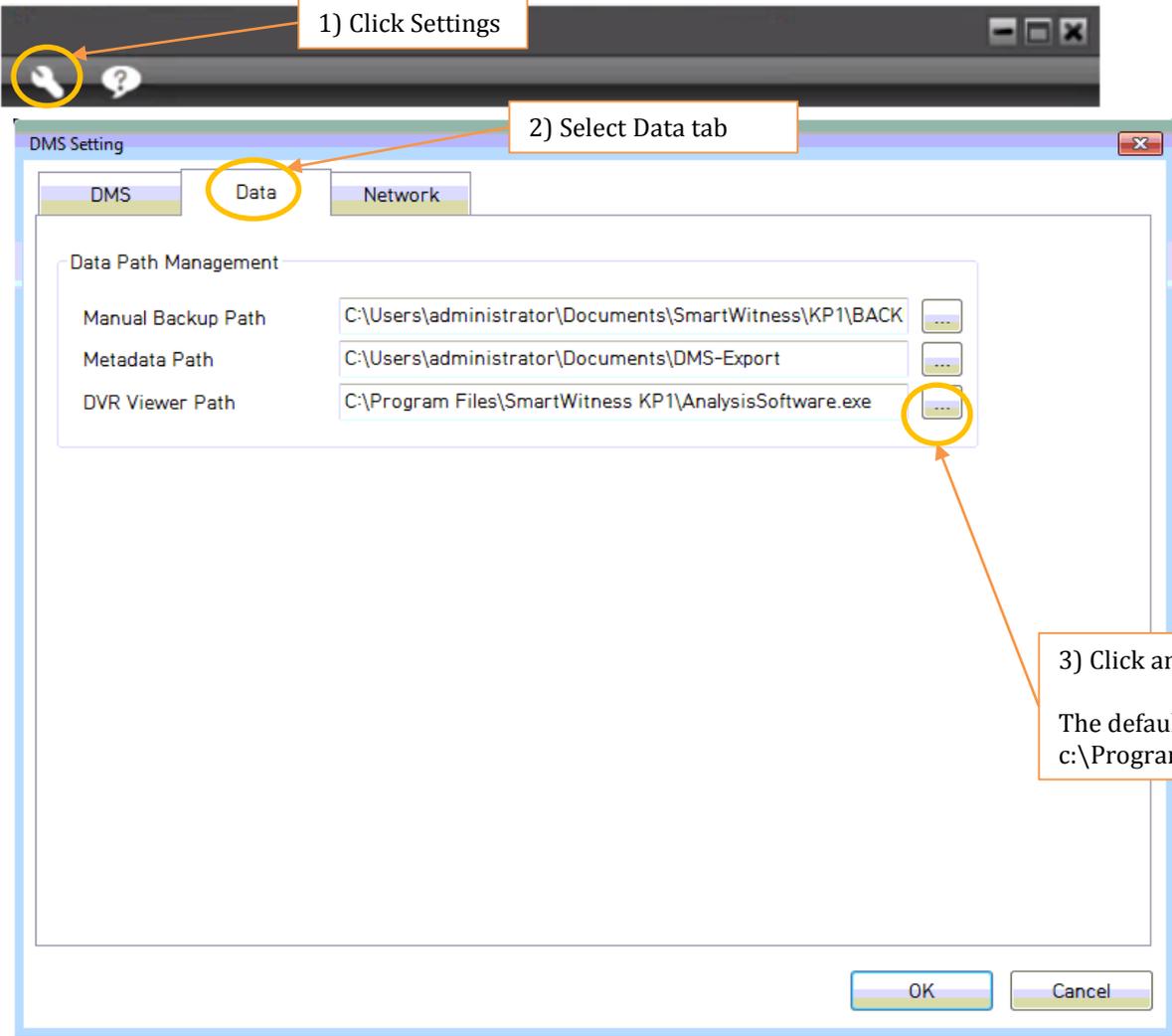
Column Name	Order	Show	Column Name	Order	Show	Column Name	Order	Show
NO	1	<input checked="" type="checkbox"/>	Speed	11	<input checked="" type="checkbox"/>	Time	21	<input checked="" type="checkbox"/>
Active	2	<input checked="" type="checkbox"/>	RPM	12	<input checked="" type="checkbox"/>	Recorder	22	<input checked="" type="checkbox"/>
VehicleID	3	<input checked="" type="checkbox"/>	Heading	13	<input checked="" type="checkbox"/>			
Vehicle No.	4	<input checked="" type="checkbox"/>	Record	14	<input checked="" type="checkbox"/>			
Group	5	<input checked="" type="checkbox"/>	Camera Signal	15	<input checked="" type="checkbox"/>			
Driver	6	<input checked="" type="checkbox"/>	DRV Backup	16	<input checked="" type="checkbox"/>			
Update Time	7	<input checked="" type="checkbox"/>	SdnStart	17	<input type="checkbox"/>			
EventCnt	8	<input checked="" type="checkbox"/>	SdnAccel	18	<input type="checkbox"/>			
Alarm	9	<input checked="" type="checkbox"/>	SdnBrake	19	<input type="checkbox"/>			
Signal	10	<input checked="" type="checkbox"/>	Dist	20	<input checked="" type="checkbox"/>			

OK    Cancel

Checked item will be on the main screen

Unselect item to hide on the main screen

# DMS4 settings: setting the data & the PC viewer paths



3) Click and select AnalysisSoftware.exe file.  
The default location is  
c:\Program Files (x86)\SmartWitness KP1\AnalysisSoftware.exe

# DMS Settings: Network Tab

**Network**

Port No(restart) 5000  
DMS Key DASKEY\_001

Live Track Interval 2 sec  
Send DRV Interval 1 min  
Network Time Out 10 min  
Retry Count 3 times  
Health Interval 3 sec  
Health Retry Interval 1 min  
Snapshot Delay 500 msec  
Keep Alive Time (Restart) 10 sec

**Web Service**

Running Port: 443(SSL) Start Stop  
 Enable Web Service  
Port No  
Domain/Static IP and Port # http://112.222.189.236:5000 ex) http://DomainName:5000  
License Key DASKEY\_001  
 Secure Connection(SSL) Cert File...  
startssl\_smartets.com1.pem  
Client Register  
Web Service Upgrade

**DMS Management**

Driver Id Setting Type Remote Update  
Safe Driving Option(Mail) Select Geofence  
 Receive Geofence Event Image  
E-Mail Recipient

OK Cancel

Port Number and DMS Key must match the KP1 Setting.

Set The interval in which KP1 is sending live tracking data, Driving Data (DRV), and the Tracking interval.

# DMS Settings: Web Service (HTML5 web application, available Sept 2015)

Display status of web service

Click and add new client ID & PW to access Web service.

Web Service

Running Port: 443(SSL)   Start   Stop

Enable Web  
Port No   443

Secure Connection(SSL)   Cert File...  
startssl\_smartets.com1.pem

Client Register

Web Service Upgrade

Set Web Client

NO	ID	Password
<input type="checkbox"/>		

ID  

Password  

OK   Close

Add   Delete

Select file for SSL

Web Service

Stopped   Start   Stop

Enable Web  
Port No   443

Secure Connection(SSL)   Cert File...  
startssl\_smartets.com1.pem

Client Register

Web Service Upgrade

# Driver ID Management & Safe Driving Option

DMS Management

Driver Id Setting Type: Remote Update

Safe Driving Option(Mail) [Select Geofence]

Receive Geofence Event Image

EMail Recipient

**Remote Update** = Change the Driver ID (Driver Name) from server

**SD Card** = Change the Driver ID using the main SD card only.

Safe Driving Check

Sdn Start: 10

Sdn Accel: 10

Sdn Brake: 10

OK Cancel

Safe Driving Option(Mail)

Threshold for Driving behaviors:

Sudden Start 10 times per day.  
Sudden Acceleration 10 times per day.  
Sudden Brake 10 times per day.

Please set SMTP and email recipient.  
Then you will receive an email daily to see which vehicles exceed this number.

# Adding Geo-fences

Safe Driving Option(Mail) **Select Geofence**

Receive Geofence Event Image

1) Click Geofence Edit in the DMS settings 

2) Set new Geofence Name

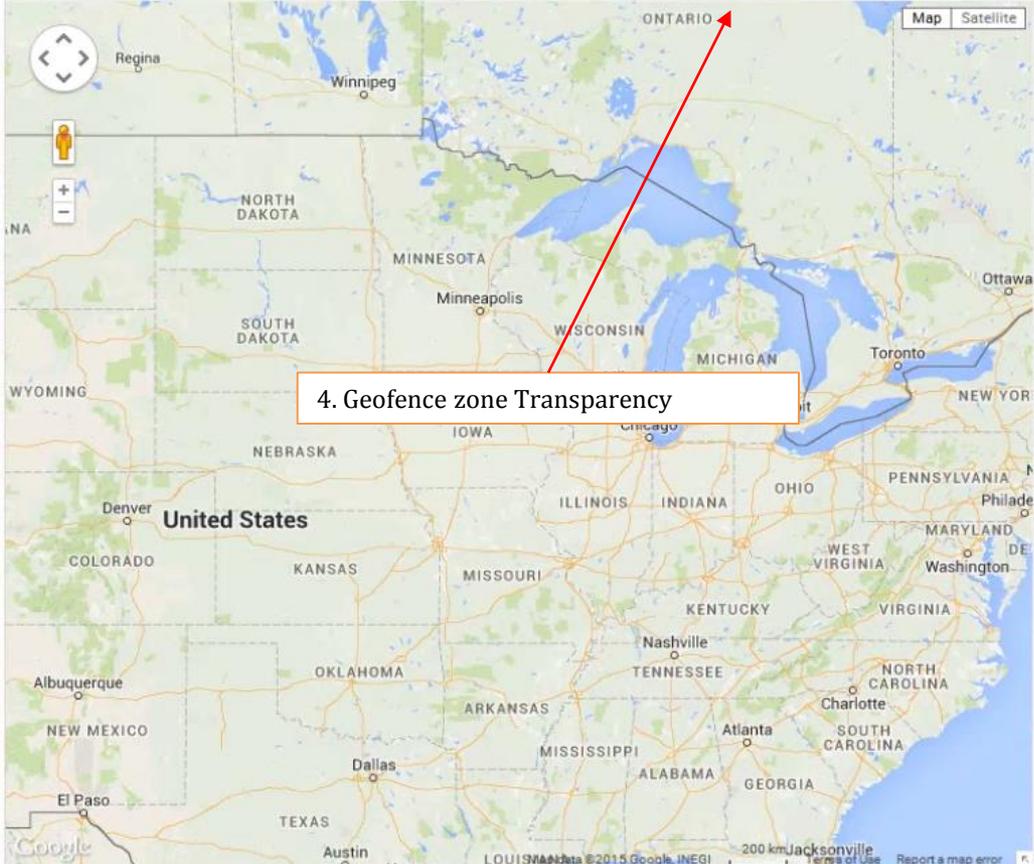
3) Set Geofence Event Trigger type:

**IN:** Event trigger when vehicle moves into a Geofence zone

**OUT:** Event trigger when vehicle moves out of a Geofence zone

Set Geofence

Name: DMS Type: IN Transparency: 20 Clear Add



4. Geofence zone Transparency

No	Geofence N
<input type="checkbox"/>	0 DMS
<input type="checkbox"/>	1 aaa
<input type="checkbox"/>	2 incho
<input type="checkbox"/>	3 incho
<input type="checkbox"/>	4 incho
<input type="checkbox"/>	5 sn
<input type="checkbox"/>	6 kyoto2
<input type="checkbox"/>	7 KyotoOut

Delete

To delete Geofences, check the box(es) you wish to delete and then click "Delete" button.

# Adding Geo-fences cont'd

6. Set New Geofence name

5. Set Geofence zone by clicking your mouse around an area on the map

7. Click Add and OK to save new Geofence

No	Geofence Name
<input type="checkbox"/>	0 DMS
<input type="checkbox"/>	1 aaa
<input type="checkbox"/>	2 incho
<input type="checkbox"/>	3 incho
<input type="checkbox"/>	4 incho
<input type="checkbox"/>	5 sn
<input type="checkbox"/>	6 kyoto2
<input type="checkbox"/>	7 KyotoOut

# Applying Geofences to Vehicles

**8. Select Database Management**

DB Path: D:\DVR\DMS\DMS\_DB.  
 DB drive total size: 2306.2 GB  
 DB drive free size: 2290.8 GB

**9. Select Vehicle(s)**

No	Vehicle Id	Vehicle No	Device Id	Group
<input type="checkbox"/> 1	00006	-	B2MA11500031	
<input type="checkbox"/> 2	00011	0015	AABCCDD0015	
<input type="checkbox"/> 3	00010	1111	AABCCDD0003	
<input type="checkbox"/> 4	00009	SantaFe	K2MB61400124	
<input type="checkbox"/> 5	00007	65BA7000	B2MA11500068	KP1
<input type="checkbox"/> 6	00005	65BA7010	K2MB61401506	KP1
<input type="checkbox"/> 7	00003	0001	AABCCDD0001	Simul
<input type="checkbox"/> 8	00004	0001	AABCCDD0004	Simul
<input type="checkbox"/> 9	00002	0001	AABCCDD0006	Simul
<input type="checkbox"/> 10	00008	0011	AABCCDD0011	Simul
<input type="checkbox"/> 11	00013	32BA1765	K2MB61400260	TAXI
<input checked="" type="checkbox"/> 12	00001	32BA1769	B2MA31400317	TAXI

**10. Select Set Geofence**

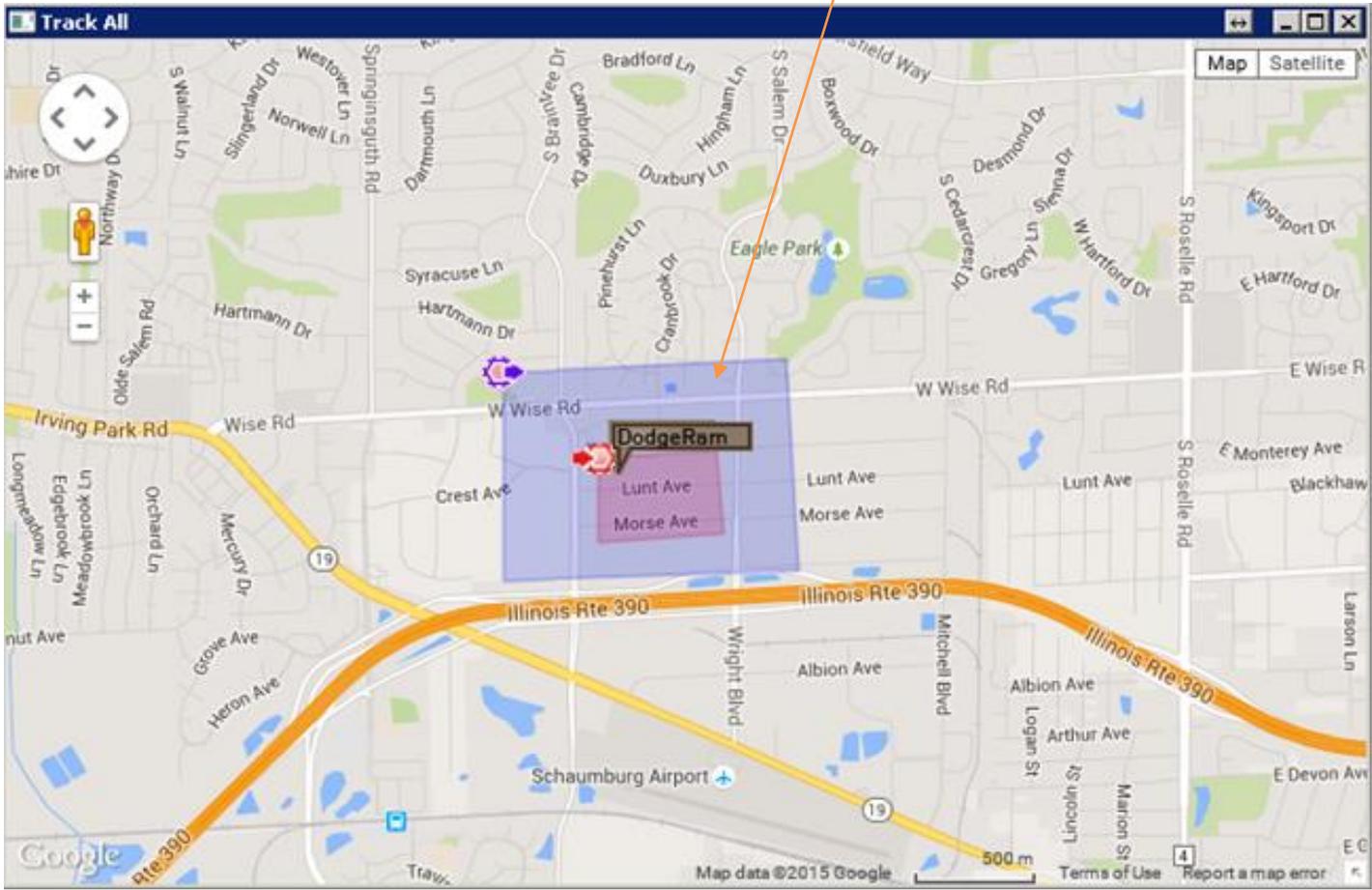
**11. Select Geofence**

No	Geofence Name	Type
<input type="checkbox"/> 1	DMS	IN
<input type="checkbox"/> 2	aaa	OUT
<input type="checkbox"/> 3	inchon	IN
<input type="checkbox"/> 4	inchonbridge	OUT
<input type="checkbox"/> 5	inchonbridge1	OUT
<input checked="" type="checkbox"/> 6	sn	OUT
<input type="checkbox"/> 7	kyoto2	IN
<input type="checkbox"/> 8	KyotoOut	OUT

**12. Select OK**

# To use Geofence 5

13) Now you can view a new Geofence on the map when you click a vehicle



Geofence Icon



1) IN: Event trigger when vehicle come in to Geofence zone



2) OUT: Event trigger when vehicle go out from the Geofence zone

# Receiving Emails from DMS4 Server

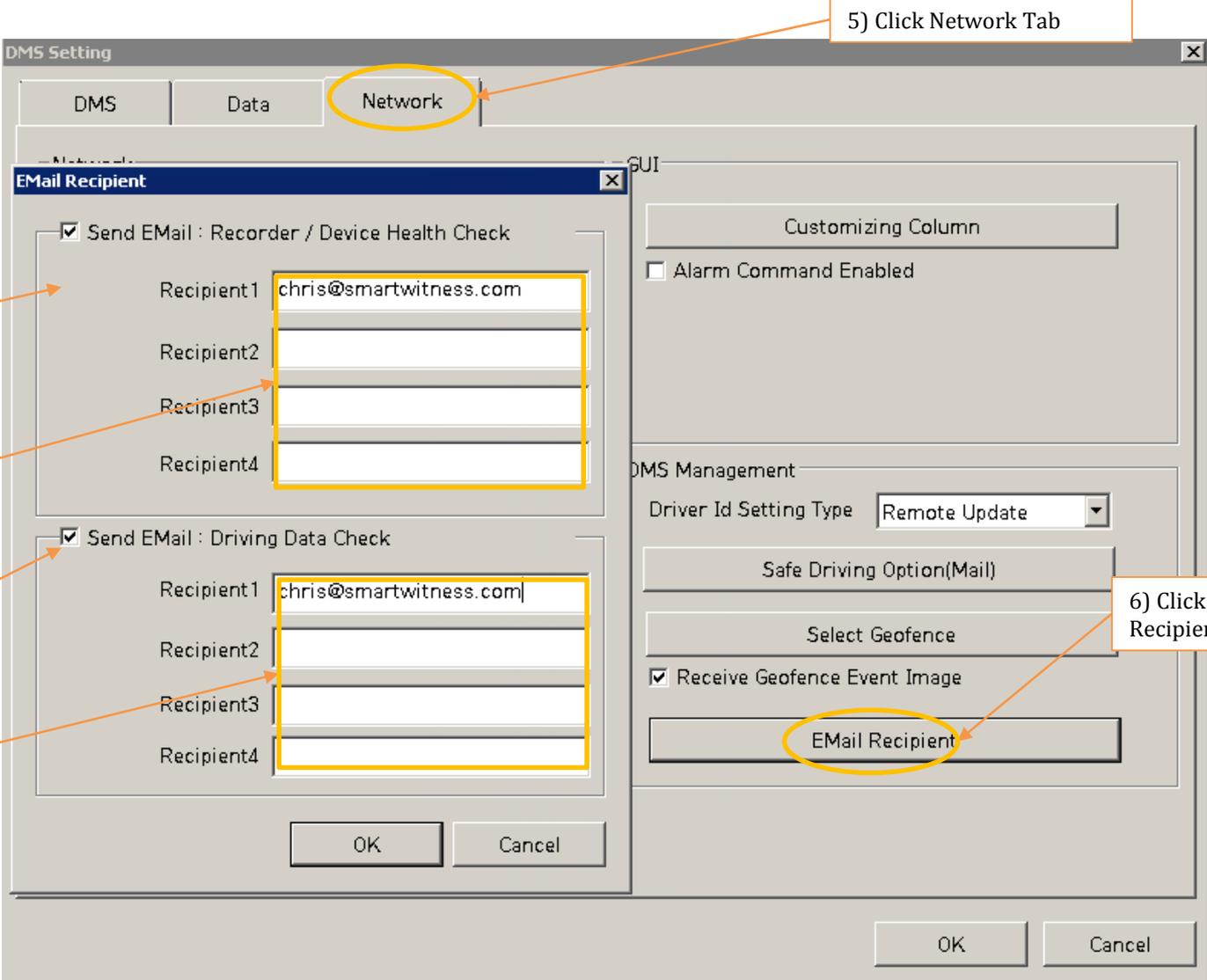
The image shows a software interface for configuring email settings. The main window is titled "DMS Setting" and has three tabs: "DMS", "Data", and "Network". The "DMS" tab is selected and circled in yellow. An arrow points to it with the text "1) Click DMS Tab".

Inside the "DMS" tab, there are several sections: "Database Setting", "Depot", "GUI", and "DMS Management". In the "DMS Management" section, the "SMTP setting" button is highlighted with a yellow oval. An arrow points to it with the text "2) Click SMTP Setting".

A sub-dialog box titled "SMTP setting" is open in front of the main window. It contains the following fields: "SMTP Server" (with "smtp.gmail.com" entered), "SMTP Port" (with "465" entered), "SMTP Security" (with "SSL" selected in a dropdown), "SMTP Login" (with "taiminco@gmail.com" entered), and "SMTP Password" (with masked characters). An arrow points to the "SMTP Security" dropdown with the text "3) Type SMTP information".

At the bottom of the "SMTP setting" dialog, there are "Text Recipient" and "Send Test" fields, and "OK" and "Cancel" buttons. An arrow points to the "OK" button with the text "4) Click OK".

# Receiving Emails from DMS4 Server cont'd



5) Click Network Tab

7) Check box to receive the KP1 health daily.

8) Input email address Then Server send a daily health check report by email.

9) Check box to receive the Driving Data daily.

10) Input email address. Then Server sends a daily Driving report by email.

6) Click Email Recipient

# About Icon

The image shows a screenshot of the 'About DMS' dialog box. A yellow circle highlights a question mark icon in the top-left corner, with a callout box pointing to it that says 'Click About Icon'. The dialog box itself has a title bar 'About DMS' and a close button. Inside, it displays 'DMS Version 4.4.0' with a Wi-Fi icon. Below that, it shows 'License : Max Vehicle[20]' with a callout box stating 'You can check the Max vehicle number which you can add and control.' The next line is 'Expire : [6] year [228] day remained' with a callout box stating 'You can check the license expiration date.' Below this is 'Copyright (C) 2015 SmartWitness Group. All Rights Reserved.' At the bottom, there are four buttons: 'AUTH', 'Memory', 'Web Client', and 'Install Web'. A callout box points to the 'AUTH' button, stating 'Once your supplier provides the license, please click AUTH to apply your new license.' To the right of the dialog box, there is a larger callout box that says 'If you want to connect more than 3 vehicles, please set your Depot name and Company name in the DMS Setting Tab. (see page 38). Then tell your supplier how many vehicles you'd like to activate under this license.'