



AVERAGE SPEED MONITORING

- Monitor vehicle speeds between two fixed ALPR camera locations
- Gather speed data on road sections
- Alert if vehicles are speeding
- Simple to setup within Helix

HELIX SECTION CONTROL is a separately licensable plugin to the Helix Back Office which can monitor the speed of vehicles travelling between 2 fixed ALPR camera locations. The feature works with the Vaxtor ALPR engine running on Windows PCs or with the On-Camera version running on-board the latest Axis cameras.

Using the **SECTIONS** feature, simply define the entrance and exit cameras for the speed monitor zone and input the distance separating the two cameras. Helix will then output the speed for each vehicle travelling between the 2 points. Alerts can be also set up for any vehicle exceeding the target speed limit.

The speeding alerts can be on-screen, by email or via the Pushbullet app to a mobile device.

HELIX FEATURES

Web-based Application and SQL Database.

Multiple simultaneous users are supported via web browser

Username / Password Login

Authority levels of all users can be controlled by the administrator

Alarm Notifications

Email & on-screen alerts & also Pushbullet on mobile devices for notification of speeding vehicles

HTTP REST API

Comprehensive API available for integration with third party software

Using an Axis camera, license plates can be stored temporarily on the internal Axis SD card before transmission to the remote Helix Back Office.



The Vaxtor ALPR application is installed onto the Axis camera utilising the powerful ARTPEC 6/7 processor. The software scans the images from the camera identifying and reading license plates, sending them on to the Helix BOF for storage and speed analysis.

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HELIX SECTION CONTROL



The Average Speed function is very simple to setup with the Helix Back Office. First setup a Zone and setup two CAMERAS at least 500m apart to use as the start and end points of road to be measured:

ZONES CAMERAS SCHEDULE SECTIONS CAPACITY							
Id		Plate Reader Id	Name	Type	Zone	Latitude	Longitude
2		43	Traffic Cam 43	Reader	Greater Lawchester		
1		42	Traffic Cam 42	Reader	Greater Lawchester		

Next create a SECTION and set the Entrance and Exit cameras. Set the distance between the two cameras and the expected minimum time to travel between them. In this example the section of road is 5200m long and so travelling at 30m/sec (= 67mph) would take 173secs. We then enter a target *maximum* time. Any vehicle exceeding this time will be discarded for average speed data.
(Used to remove outliers such as vehicles that might have stopped off at a garage from the dataset)

Section						
Name *	Lawchester Bypass					
Distance (m) *	5200	Maximum (Sec) *	400			
Entrance camera *	Traffic Cam 42	Exit camera *	Traffic Cam 43			

ZONES CAMERAS SCHEDULE SECTIONS CAPACITY						
Name	Distance (m)	Maximum (Sec)	Entrance camera	Exit camera		
Lawchester Bypass	5200	173	Traffic Cam 42	Traffic Cam 43		

As plates arrive at the Helix, the speed is recorded against each vehicle plate in km/h. Slow vehicles exceeding the maximum time are recorded as a speed of -1.

Capture date	Plate	Image	Camera ID	Camera	Country	Direction	Speed	Confidence	Average digits height	Multiply rate	OGR processing time	Capture Id	Capture Type	Alarms
01/04/2020 12:36:01	BKS2DYD		2	Traffic Cam 43	GBR	Unknown	-1	99%	23	1	38.94			
01/04/2020 12:34:21	VU06HZT		2	Traffic Cam 43	GBR	Getting closer	81	99%	24	6	38.13			
01/04/2020 12:34:20	V301LOM		2	Traffic Cam 43	GBR	Getting closer	81	99%	22	5	10.04			

Setting Alerts

Finally turn on the Speeding alarm in Zones and set a target Speed Limit in km/h. Speeding vehicles are highlighted and may be searched for. Popup alerts appear on screen or can be emailed etc.

Helix7 - Plates														
FROM: 01/04/2020 00:00 X Search criteria														
Capture date	Plate	Image	Camera ID	Camera	Country	Direction	Speed	Confidence	Average digits height	Multiply rate	OGR processing time	Capture Id	Capture Type	Alarms
01/04/2020 12:36:01	BKS2DYD		2	Traffic Cam 43	GBR	Unknown	164	99%	23	1	22.97			
01/04/2020 12:34:21	VU06HZT		2	Traffic Cam 43	GBR	Getting closer	-1	99%	22	5	11.54			

For more information on Section Control / Average Speed Monitoring contact any of the Vaxtor offices below.

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