

CIRCUMSPECTOR



THE SOLUTION TO MONITOR DRIVING STYLE



WHO MAY NEED CIRCUMSPECTOR?



CAR RENT AND LEASE

Give discounts to diligent drivers and penalize the reckless ones. As a result, more vehicles will be available to clients, and fewer cars will idle at the service station.

TAXI FLEETS

If a small taxi service wants to compete with Uber and PickMe, why not make driving safety their top priority and unique feature?

TRANSPORT OPERATORS

By preventing accidents, the company ensures an uninterrupted supply chain and avoids delay fines.

INSURANCE COMPANIES

Use driving quality data to identify the causes of accidents, adjust rates for diligent drivers, and ensure a more precise risk assessment.

PARENTS

Check how teen drivers behave on the road, can head to them in case of an accident, or train young drivers depending on what mistakes they make.





FEWER

traffic tickets and fines



RARE

critical breakdowns



SAFER

Cargo, passengers, nerves



LOWER

fuel consumption



GETTING STARTED WITH CIRCUMSPECTOR



PLACE A TRACKER

with an accelerometer in your car.

REGISTER THE VEHICLE

in the system.

CREATE AN ASSESSMENT MODEL

and customize it to specific tasks.

ASSESS DRIVING QUALITY

via reports, charts, or violation lists.



***The slower you go, the less you pay**

We do not guarantee 100% protection from traffic fines. We suggest you get the drivers to behave more carefully and minimize violations.

STEP 1: CREATE ASSESSMENT MODEL



1

SELECT THE PARAMETERS TO CONTROL

Speeding, acceleration, braking, cornering, reckless driving.



2

SHOW THE SYSTEM WHAT TO CONSIDER A VIOLATION

For example, if the system detects "Acceleration" with the G-force of 0.4 g and more, it will report a severe violation.



The screenshot displays the 'Eco Driving' software interface. On the left, a list of units is shown under the 'eco' group, including units like HN, NA, HW, and HD. On the right, a table shows unit performance metrics for 'HN' and 'NA'. Below this, the 'Unit Properties - Audi 01R' configuration window is open, showing various tabs like 'General', 'Access', 'Icon', 'Advanced', 'Sensors', 'Custom Fields', 'Unit Groups', 'Comma', 'Profile', 'Trip Detection', 'Fuel Consumption', and 'Service Intervals'. The 'Advanced' tab is selected, showing a table of criteria for violations. A red box highlights the 'Acceleration' and 'Braking' criteria rows.

Name	Criterion	Min value	Max value	Penalty	Advanced
Acceleration: extreme	Acceleration	0.4 g		2000	Averaging: B
Acceleration: medium	Acceleration	0.31 g	0.4 g	1000	Averaging: B
Brake: extreme	Braking	0.35 g		2000	Averaging: B
Brake: medium	Braking	0.31 g	0.35 g	1000	Averaging: B
Harsh driving	Reckless driving	0.3 g		300	Averaging: B
Speeding: extreme	Speeding	41 km/h		5000	Averaging: B
Speeding: medium	Speeding	21 km/h	41 km/h	2000	Averaging: B



STEP 1. CREATE ASSESSMENT MODEL



3 ADD CUSTOM CRITERIA

In this case, any value of any sensor can evidence a violation: from increased engine speed to the wrong gear.

4 SET THE FINE FOR EACH VIOLATION

Penalty points are used to rank the drivers when creating the rating.

The screenshot shows the 'Eco Driving' dashboard with a table of driver performance metrics. The table has columns for Unit, Rank, Penalty, Violations, Duration, Mileage, km, and Trips. A modal window is open in the foreground, showing the configuration for a custom criterion.

Unit	Rank	Penalty	Violations	Duration	Mileage, km	Trips
HN	2.4	367	526	36:24:08	713.3	70
NA	2.6	308	718	51:53:58	1253.9	92
NA	2.6	314	1377	63:15:18	1620.6	69
NA	2.6	298	341	39:44:36	826.8	80
HD	2.7	275	768	57:06:38	1446.6	109
HW	3.1	190	248	41:33:54	808.9	65
51	3.2	173	1048	125:44:54	3634.3	229
NA	3.5	149	680	67:39:34	1771.7	70
25	3.7	130	662	74:50:10	2510.2	129
58	3.7	126	1969	221:24:16	6985.5	460
JI	3.9	109	252	44:04:28	943.9	57
251	4.0	96	1539	225:20:06	6763.6	517
NB	4.0	99	87	76:28:04	561.1	165
57	4.0	99	722	126:54:48	3773.2	240

Modal Configuration:

- Criterion: Custom
- Name: Cabin temperature
- Sensor: Temperature sensor
- Min/max value: 35, 100
- Penalty: 2000
- Validator: None
- Averaging: By mileage
- Min/max duration: [Empty]
- Min/max speed: [Empty]



STEP 2. CUSTOMIZE THE SOLUTION



The number of criteria is unlimited, that's why we can create a customized assessment model for your company and even individual vehicles.

1 CAPTURE CUSTOM VIOLATIONS BASED ON SENSORS

N parameters in a message = **N violations**

3 SET ADDITIONAL PARAMETERS FOR EXCEPTIONAL CIRCUMSTANCES

- For example, install the axle load sensor that will show that the truck is full and select it as a validator.
- Activate the "Multiplier" option: if the truck moves under load, additional penalty points are given for each violation because the driver damages not only the vehicle but the cargo.

The screenshot shows a configuration window for a custom violation criterion. The fields are as follows:

Criterion:	Custom	Validator:	Axle load sensor
Name:	Cabin temperature	<input checked="" type="checkbox"/> Multiplier	
Sensor:	Temperature sensor	Averaging:	By mileage
Min/max value:	35 100	Min/max duration:	sec
Penalty:	2000	Min/max speed:	km/h

Buttons: Cancel, Save

2 RANK THE VIOLATIONS BY THEIR SEVERENESS

Acceleration	Violation	Fine
5-10 km/h	Minor	500 points
11-15 km/h	Moderate	1,000 points
16-300 km/h	Severe	5,000 points

4 CREATE A FAIR RATING WITH THE HELP OF AVERAGING

Kasun has got 10 violations for the whole day.

Yasintha has got the same number of violations after driving a few blocks away.



Averaging by time or mileage will help you see the real situation. In this case, the total number of penalty points is divisible by each kilometer or minute in trips.



STEP 3. ASSESS RESULTS



1

IN THE CIRCUMSPECTOR WEB APPLICATION

- **Charts**

Show violations, penalties, and driving scores in separate rides, considering their duration.

- **The violation list**

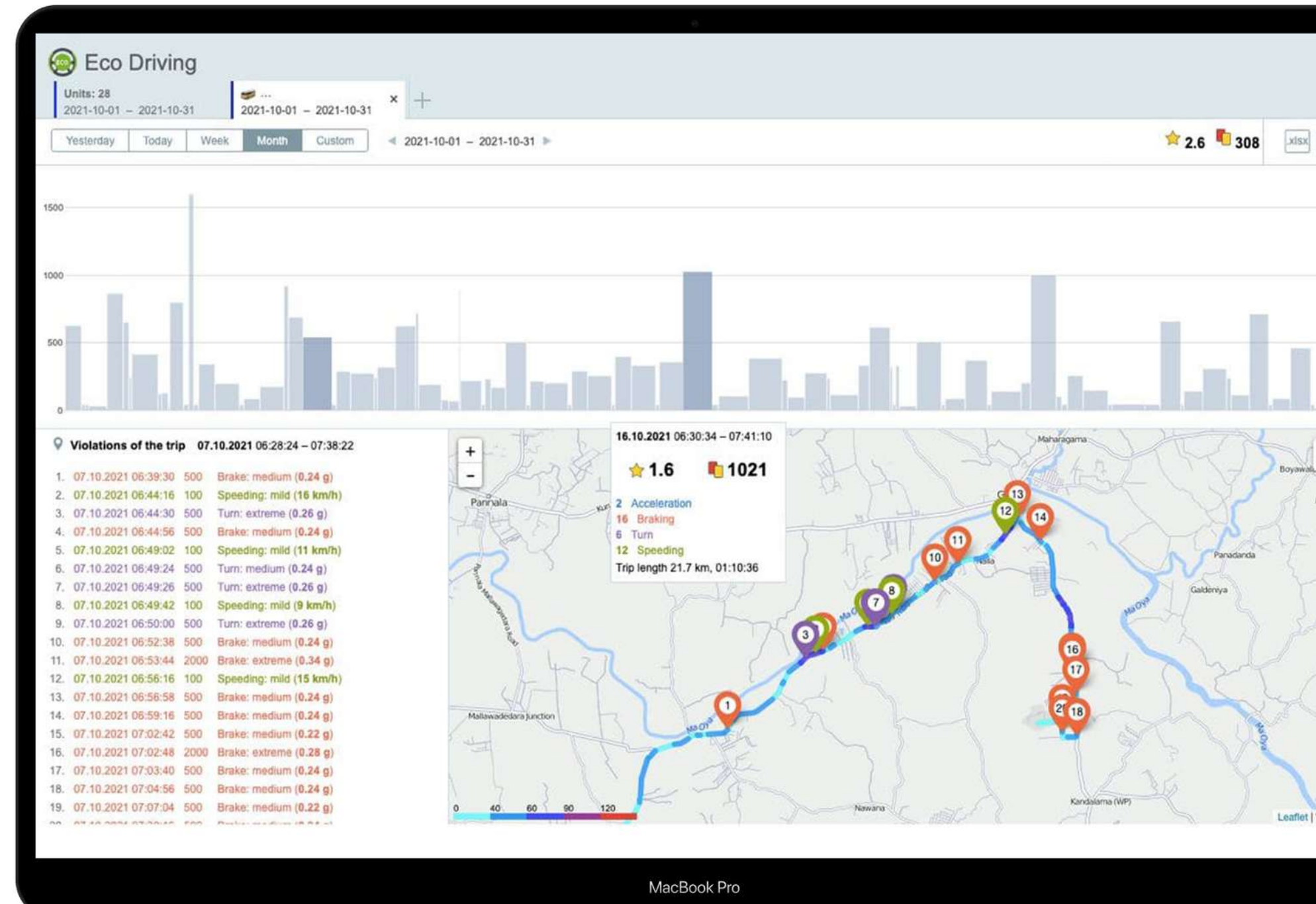
Describes each case of unsafe driving in detail, including its location, date and time, and the driver.

- **Maps**

Display violation markers of different colors depending on their severity.

- **Driver ranking**

Shows the list of drivers in your fleet from bad to worse, or vice-versa.



STEP 3. ASSESS RESULTS



2

IN REPORTS

The "Eco-Driving" table in the FiOS fleet management platform describes each violation in detail: what happened, where, when, and who was driving the vehicle. Here, you will find the score, the driver rating, and 12 more driving quality parameters.

3

IN NOTIFICATIONS

The system will send online violation alerts by email, SMS, or via a pop-up window in the system interface.

The screenshot displays the Kloudip FiOS dashboard with two tables of violation data. The top table shows a list of violations with columns for Grouping, Violation, Beginning, Initial location, Max speed, and Count. The bottom table shows a list of units with columns for Grouping, Violation, Location, Time, Max speed, Count, Rank, and Rating by violations.

Grouping	Violation	Beginning	Initial location	Max speed	Count
Speeding: mild	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	79 km/h	147
Brake: extreme	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	53 km/h	27
Turn: medium	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	55 km/h	71
Acceleration: extreme	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	31 km/h	1
Turn: extreme	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	48 km/h	7
Acceleration: medium	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	49 km/h	9
Brake: medium	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	54 km/h	91
Speeding: medium	----	2021-11-11 00:00:02	Colombo - Kandy Road, Sri Lanka, School Junction	79 km/h	3

Grouping	Violation	Location	Time	Max speed	Count	Rank	Rating by violations
250	----	Muthugala Kudagammana Road, Sri Lanka, Muthugala	2021-11-11 11:42:06	71 km/h	3	4.6	14
251	----	Katunayake-Veyangoda Road, Sri Lanka, Awariwatte	2021-11-11 00:31:50	79 km/h	33	4.3	19
252	----	Dethwa Marawita road, Sri Lanka, 3.14 km from Saliyala	2021-11-11 04:30:20	70 km/h	14	4.4	16
HD	----	Negombo - Giriulla Road, Sri Lanka, Badalgama	2021-11-11 06:15:44	45 km/h	8	3.9	21
HH	----	Kurunegala-Negombo Road, Sri Lanka, 5.23 km from Yakwila	2021-11-11 06:39:14	28 km/h	4	3.8	22
JI	----	Alawwa-Giriulla Road, Sri Lanka, Maliehewa	2021-11-11 06:04:10	58 km/h	8	3.7	23
NA	----	Dangolla - Matiyagane Road, Sri Lanka, Matiyagane	2021-11-11 05:55:24	69 km/h	32	2.4	28
NA	----	Pasyala - Giriulla Road, Sri Lanka, Pasyala	2021-11-11 05:50:08	35 km/h	5	2.8	26
NB	----	Botale - Meerigama Road, Sri Lanka, Ambepussa	2021-11-11 06:10:50	33 km/h	3	4.6	15
NB	----	Narammala Road, Sri Lanka, 4.08 km from Yangalmodara	2021-11-11 05:41:58	50 km/h	15	3.6	24
NB	----	Kurunegala-Narammala-Madampe Road, Sri Lanka, 2.75 km from Narammala	2021-11-11 06:01:54	21 km/h	2	5.4	9
NC	----	Divulapitiya, Sri Lanka	2021-11-11 06:20:24	74 km/h	19	1.9	30
ND	----	Kuliyapitiya-Hettipola Road, Sri Lanka, Kadawalagedara	2021-11-11 05:47:22	79 km/h	53	1.7	31





EFFICIENCY PROVEN BY BRANDIX

Brandix established a driver training & reward system based on CIRCUMSPECTOR driving safety solution in Sri Lanka. The company provides personalized training, salary bonuses, or penalties based on employees' driving quality.

At Telematics Colombo, Brandix reported preventing 90% of traffic accidents monthly and significant fuel economy across the fleet.





YOU TEMPT FATE

When you exceed the average speed of the flow by 1 km/h, the accident risk increases by 10-15%. While exceeding it by 10 km/h, the risk of such accidents increases drastically.



YOU WATCH THE COLUMN OF FLAME

When two light vehicles get into an accident, we see two grieving men. When a 30-tons fuel tanker gets into an accident, we see the column of flames several kilometers away. This is beautiful, expensive, and sad. If you control speed, gear shifting, heavy braking, acceleration, and cornering, you can save up to \$150,000 per accident or at least identify the ones to blame.



YOU DON'T GIVE A DAMN ABOUT ECOLOGY

The driver pedals to the metal and discharges more CO2. The system will calculate the emission volume and show how to reduce it. The French, for example, can't do without it. And if you don't care, just purchase another six-liter G-Wagon.



YOU "WASTE" VEHICLE PARTS

The frequent "gas-brake-gas" shifting increases the clutch and braking systems deterioration, while more significant violations lead to critical breakdowns and crashes.



YOU CAN'T BUY GOODS

Each accident of a transport truck means that the products won't get to the shops on time and unspoiled. Due to interrupted supply chains both logistics operators, carriers, and shops suffer losses. CIRCUMSPECTOR will allow training drivers based on their weak points, avoid dangerous road segments, and prevent accidents caused by reckless driving.



YOU BURN THE FUEL ALL OUT

All-wheel drive cars burn fuel fast, so they turn on this option only under off-road conditions. If you don't control the 4x4 mode switching in the city and on the highway, you can't call your driving fuel-efficient.



P.S. WATCH CIRCUMSPECTOR IN ACTION



CIRCUMSPECTOR



THANKS FOR WATCHING

FIND MORE FLEET MANAGEMENT APPS ON KLOUDSKY

