Monitoring of Natural Gas and Biogas
Pipeline Networks and Plants

2023

GAZOSURVEY™

iOS and Android mobile application
for network monitoring and gas leak recording

- Universal mapping solution with data collection and recording

- Bluetooth communication with GAZOMAT™ detectors

- Compatible with an enterprise data management solution

- Suitable for pedestrian and other mobility solutions

GAZOSURVEY™ is a mobile software application designed to monitor natural gas/biogas networks and facilities providing automated methane leak data logging. Running on iOS and Android operating systems, the field survey solution is available from App Store or Play Store. Its purpose is to make survey data collection from mobile devices fast, easy and to enable enterprise data sharing and collaboration.

In addition to ensuring regulatory compliance, monitoring traceability allows for quick response from the repair teams.

GAZOSURVEY : What It is

The application allows a mobile device to connect to a GAZOMAT detector via Bluetooth. It is then very easy to conduct inspections from a smartphone/tablet, using all the device's functionalities (GPS, keyboard/voice-to-text, email, SMS, camera,) to collect and transfer data fast and accurately.

As easy as 1,2,3

- Inspections assigned to field operator displayed in a dashboard with scheduled completion deadline and status. Removal of completed surveys is automatic, thus avoiding any duplication
- Real-time visualization and navigation in Google Maps or OpenStreetMap powered by ESRI (under licence)
- Geoposition recording at regular intervals, coupled with detector's Serial Nr., PPM reading, date, time…

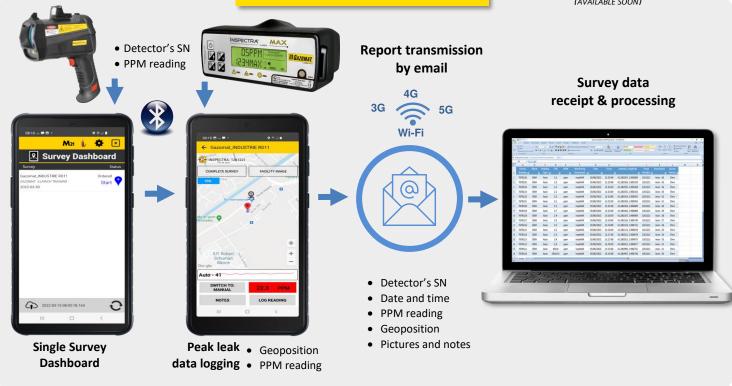### Full control at your fingertips

- App settings fully configurable, at any time: language, map type (Google Maps/OpenStreetMap), auto-logging interval, alarms, etc.
- Detector's functional testing (results automatically recorded)
- Survey details filled in via the survey information page
- Event note entry and hot spot picture taking and storage
- Maximum reading (MAX) automatically logged

Interface with a web-platform

- Automated transfer of survey data to NGMesh platform

GAZOSURVEY ENTERPRISE interfacing with NGMesh web platform – How It Works

1 Surveys assignments received on mobile through notifications from the NGMesh platform

2 Bluetooth pairing with a GAZOMAT detector. Identification via the device's serial number

3 Surveys to start or to resume displayed in *listing* or in *map* mode

4 Navigation to survey starting point by a click on a survey on map

5 Synchronizing PPM reading and geoposition recording

6 Recording of MAX value measured by detector

7 Detailed leak note entry using:
● Note description field
● Scroll list
● Camera (up to 5 pictures per note)

MAX value displayed

8 Automated transfer of survey data to NGMesh-platform

(AVAILABLE SOON)

- Detector's SN
- PPM reading

Report transmission by email

3G 4G 5G Wi-Fi

Survey data receipt & processing

Single Survey Dashboard

Peak leak data logging
- Geoposition
- PPM reading

- Detector's SN
- Date and time
- PPM reading
- Geoposition
- Pictures and notes

GAZOSURVEY™ ENTERPRISE Version - Interfacing with NGMesh Web Platform

Desktop NGMesh Web Software

Monitoring platform

Global leak activity and network monitoring data management
- Survey assignments to field technicians' mobile phones/tablets running Gazosurvey App
- Dashboard of alerts and survey operations in the field (PPM readings, notes, etc.)
- Sharing of utilities' proprietary GIS network mapping files with GazoSurvey users

Utilities' GIS
(not part of NGMesh/GAZOSURVEY)

Gas pipeline network proprietary data
- Imports
- Exports
- Updates

Multi-Survey Dashboard

3G 4G 5G Wi-Fi

NGMesh Web Platform

Survey data centralization
- Receipt
- Transfer
- Storage

Pipeline Network Data Display

3G 4G 5G Wi-Fi

- Display of surveys to be performed with advancement status (Start or Resume) and completion deadline as scheduled from monitoring platform
- Automated dashboard maintenance
- Navigation to HotSpots to monitor

- Display in Google Maps or OpenStreetMap
  ➢ No need for printed maps
- Display of GIS network mapping files
- Geolocation of technician's mobile device

GAZOSURVEY Application Features	BASIC version (available soon) Single licence	ENTERPRISE version NGMesh Platform interface Multiple licence pack
• One Licence per user	Single licence	Multiple licence pack
• Downloading from App Store (iOS OS) or Play Store ((Android OS)	✓	✓
Start-up & configurable Settings		
• Wireless Bluetooth connection to GAZOMAT detectors via their serial number	✓	✓
• Survey dashboard for survey selection and start up	Single survey dashboard	Multi-survey dashboard
• Auto-logging intervals of smart device's geolocation (1/2/4/5/10/20/30s)	✓	✓
• Reading recording	✓	✓
• Multilingual - Chinese, Czech, English, French, German, Italian, Portuguese, Romanian, Spanish…	✓	✓
• Alarms	✓	✓
Mapping		
• Compatible with mapping platform: Google Maps	✓	✓
• Compatible with mapping platform: OpenStreetMap powered by ESRI		✓
• Display of geoposition	✓	✓
• Full screen map view - Two-finger scroll for Zooming/Dezooming, centering and shifting map on screen	✓	✓
• Synchronisation of NGMesh platform with customer existing GIS system (subject to compatibility)		✓
• Display of gas network mapping files. Required file format: o SHAPE format compatible with OpenStreetMap o KML format compatible with Google Maps		✓ ✓ ✓
Traceability		
• Leak events coupled with mobile device geolocation, PPM reading, user name, detector's Serial Number, notes entered and HotSpot pictures	✓	✓
• Detector's functional tests with tests reports automatically transferred to NGMesh platform. Verification process using: o Either one methane concentration value o Or several methane concentration values (Method21 valid for INSPECTRA detectors only and in the USA exclusively) • Reference gas concentration value modifiable		✓ ✓
Data transmission and access		
• Survey data transmission to email address (detector's serial number, date and time, Geolocation, PPM reading, notes)	✓	
• Survey data recording and storage on NGMesh web platform		✓
• Output data compatible with Excel tool for processing and further analysis	✓	✓
• Data export		✓

GAZOSURVEY™ – Technical Requirements		
Mobile software application compatible with	iOS operating system	Android operating system
Mobile device version (smartphone or tablet)	iOS 11 and newer	8.0.0 and newer
Recommended minimum screen size	4 inches or 11.9 cm	4 inches or 11.9 cm
Optimum screen size	6.1 inches or 15.4 cm	6.1 inches or 15.4 cm
RAM of Smartphone/Tablet	5 Go or greater	5 Go or greater
Storage	64 Go or greater	64 Go or greater
SIM card required	4G minimum	4G minimum
Data pack	Approx. 100 Mo/day	Approx. 100 Mo/day
Licence	In-app purchases/Corporate	In-app purchases/Corporate
Automatic software update notifications	Via App Store / Corporate	Via Play Store / Corporate

WWW.GAZOMAT.COM

GAZOMAT™ Prodotti e Servizi Srl
Uff. : +39 02 62062939 - Cell.+39 335 6945358
gabriella.lattarulo@gazomat.com
Via Marco Polo 36 - 20083 Gaggiano (MI) – Italia

GAZOMAT™ EMEA (Europe-Middle East-Africa)
Tel. : +33 (0)3 69 24 37 81 - +33 (0)3 69 24 37 82
info@gazomat.com
11, rue de l'Industrie – 67400 Illkirch-Graffenstaden – France