

imajbox[®] 2

Portable mobile mapping system



PRESENTATION

imajbox[®] is a compact and portable mobile mapping system designed for high speed and massive geo referenced data collection along transportation and linear networks.

A response to many issues :

- GIS and mapping
- Infrastructures assessment
- Engineering studies
- Linear referencing system
- Management of maintenance
- Work control
- Planning and budgeting
- Monitoring



ACCURATE

Proprietary algorithms to process sensors raw data : GNSS, INS, vision for a continuous and accurate spatial positioning.



SIMPLE

Independant, standalone and autocalibrated.



PRODUCTIVE

High speed surveys for large scale data collection.



CONNECTED

Controlled by Wi-Fi and connectors for external sensors integration.



ADJUSTABLE

Easy mounting in all orientations with a tripod suction pads.



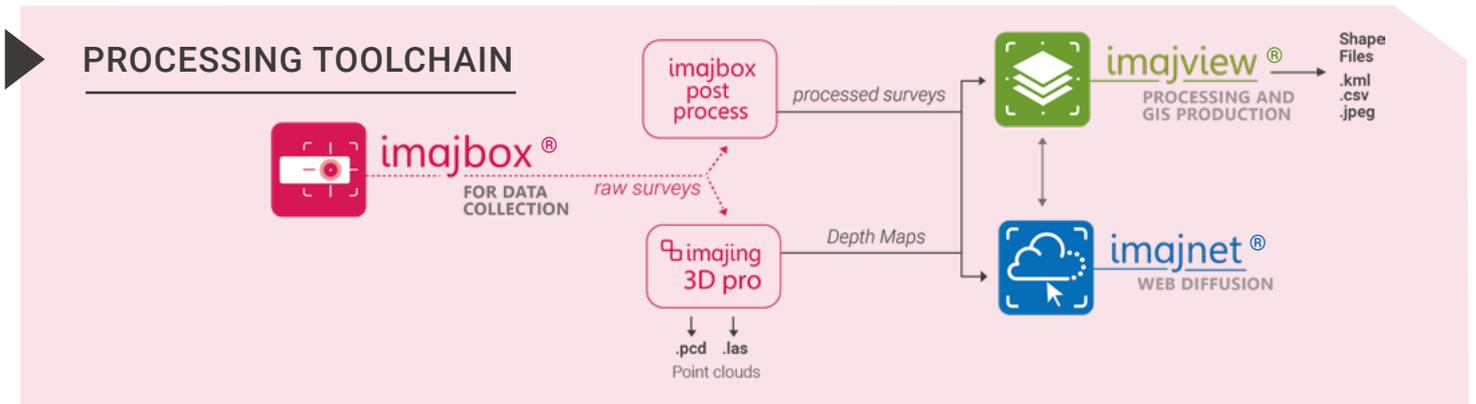
A VERSATILE TOOL

Mounted on cars, trucks, trains or boats, imajbox[®] can survey **from few to thousands of kilometers.**

Punctual, recurrent or nation wide projects, **imajbox[®] is the tool to survey up to date data.**

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→ imajing IMU

DX2 is the second generation of imajing MEMS IMU. It combines accuracy, repeatability and robustness. Its factory calibration enables a compensated **temperature drift from -40°C to +70°C**, a **controlled drift** and a **regular auto recalibration**. It is combined with **inhouse image flow tracking technology**.

DX3 is an improved version of DX2 IMU with a **filtering model** adapted to trains and boats' specific dynamic.

→ IMAGE PROCESSING

imajbox[®] has an **80° or 100° high quality lens** which is **factory calibrated** to remove optical distortion in photogrammetry.

imajbox[®] has optimal **sense processing** that **automatically renders in all daily conditions of light and speed**: natural colors, deep depth of field or sharp and detailed images.

→ POSITIONING TECHNOLOGY

imajbox[®] merges data captured by a set of sensors to ensure accurate and continuous positioning – a factory calibrated inertial measurement unit (IMU), a GNSS receiver and a barometric sensor – and operates a patented self-calibration algorithm using the image flow.

The positioning is ensured even in case of a complete loss of GNSS signals and a complex environment thanks to:

- **dead reckoning:** propagation of the last known position that allows the geo-positioning's upkeep.
- **mitigation of multi-path GNSS signal** involved in positioning errors.

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Survey type		— —				
Image sensor		5 MPX CCD				
HFoV		80°			120° or 2x80°	
IMU		DX2		DX3	DX2	DX3
Maximum speed survey (km/h)		130		180	130	180
Data volume (MB/km range)		250			500	
GNSS mode compatibility and related planimetric absolute accuracy*	Standalone - 2m CEP	●	●	●	●	●
	SBAS - 1m CEP	●	●	●	●	●
	DGNSS - 50cm DRMS		●	●	●	●
	PPP - 30 DRMS		○	○	○	○
	RTK - 20cm DRMS		○	○	○	○

* Accuracy is given for objects positioned up to 20m from camera according to positioning solution, in open sky.