LUXMODUS™
mapping made easy

PAVEMENT MANAGEMENT

Rapid 3D Mapping for Evaluating and Maintaining

AI empowered 3D mapping and inspection technologies are enhancing pavement management programs by providing near real-time, highly detailed, and immersive information. Lux Modus brings the latest proven technology for use in all levels of government, agencies and service providers for the infrastructure industry.

Lux Modus data supports your pavement management programs and systems regardless of your framework. *It's the way we designed it*. Maximize your organization spend by pairing pavement management with other evaluation and reporting programs, such as curb management, or building compliance.

More comprehensive data translates to better decisions, meaning more can be done with less.

Digitize and Centralize Your Data: 3D mapping enables the digital twin of your road networks, easily integrating with enterprise data management systems and workflows across all your assets.

Visualize Your Data: 3D mapping data is easier for stakeholders to understand as it provides context to assets in the environment. Detailed geographic and contextual 3D data supports resource allocation, stakeholder engagement and safety planning.

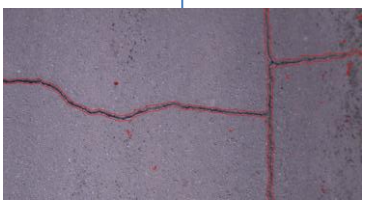
Make Informed Decisions: 3D mapping supports data driven approaches in planning and decision making. Our data is consistent, reliable, standardized, and can be collected easily on a regular basis.

Increase Cost Savings and Efficiency: Lux technology consolidates data into a common frame of reference. Use on its own or integrate with your existing pavement management systems, enabling reduced waste and costs, throughout the life cycle of your road assets.

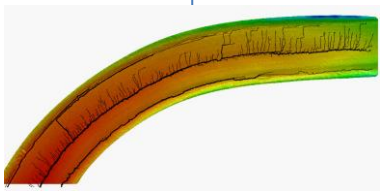
Defect Geometry

FeatureID	Perimeter_m	Damage_Type	Detail	Class_Name
100029876	11.32	Crack - Lateral	Wheel mark point	D00
100029877	3.74	Linear Crack	Construction joint part	D01
100029878	4.11	Aligator Crack	Partial pavement	D20
100029879	7.16	Other Corruption	Bump	D40
100029880	7.67	Linear Crack - Long	Wheel mark part	D00
100029881	10.39	Linear Crack	Construction joint part	D01
100029882	3.59	Aligator Crack	Partial pavement	D20
100029883	4.63	Linear Crack	Construction joint part	D01
100029884	3.02	Linear Crack -Lateral	Equal interval	D10
100029885	3.15	Linear Crack -Lateral	Equal interval	D10

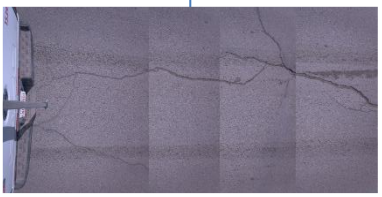
Defect Attribution



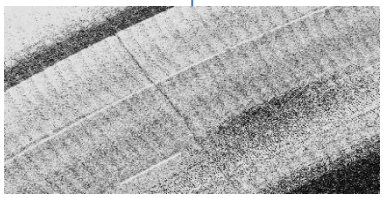
Variance Detection



Geospatial Analysis



AI Driven Image Processing



3D Surface Processing

A 3D Digital Twin is more than point clouds and images. It is GIS and CAD data, ready to be consumed via web maps and desktop or enterprise geospatial systems.

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Headquartered in Calgary, we are Canadian owned and operated.
All our engineering, manufacturing, and testing happens here in Canada!

The Lux Modus platform:

Affordable, easy-to-use, built for Canada

- Designed for the harshest environments
- Data viewable within minutes of upload
- No special training or software required
- Near-real-time high-definition 3D mapping
- Ultra-high-resolution imagery and LiDAR
- Low-cost hardware for purchase or lease
- Automated cloud processing
- Set-up in minutes or permanently mounted
- Flexible all inclusive lease rates ensuring affordability

Lux Modus is a technology company providing a low cost, easy-to-use 3D mapping system, working to democratize 3D data collection. Our collection platform is self-contained and can be mounted in many configurations depending on your mapping needs. Our one-touch data capture technology frees the user from having to manage the system while travelling the collection area.

Consisting of a high-density, digital LiDAR and three to six 12 MP cameras, LuxGear creates super rich contextual 3D maps at a price and speed not previously available.

A fully integrated 360º spherical camera system is also available with our platform.

Easily mount the LuxGear on any vehicle, plug in to a power source in the vehicle and press record to start the data collection.

Once the data collection is complete, the data uploads directly to our secure LuxCloud for processing. All data is instantly processed and colourized and is viewable in our LuxWeb 3D viewer within minutes.

Collect — LUX GEAR

Compute — LUX CLOUD

Consume — LUX WEB

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