

Frequently Asked Questions

Smart Pavement Management Edition

1. What is SPM ?

Smart Pavement Management (SPM) System is a service that can evaluate and diagnose both concrete and asphalt pavement conditions at a lower cost than conventional methods. A low-cost and highly reliable service can be achieved with a combination of A.I.-based diagnostic imaging technology and validity checks coupled with simple diagnoses by engineers.

2. What are the benefits of a pavement management system?

One long-term benefit is cost-reduction through proactive pavement maintenance and rehabilitation. A pavement management system allows for digitally accessible information regarding road networks. By introducing this low-cost pavement inspection service, pavement condition inspections can be carried out at a higher frequency that allows for finding the right repair method at the right time. In turn, this can enable a switch in strategy to proactive maintenance and repair, thereby minimizing life cycle costs.

3. What kind of results does SPM provide?

SPM can provide the following, but not limited to:

- 4-tiered rating on a GIS map display
- Quantitative data of several major distresses
- Analysis Report with simple suggestions by Roadway Engineers
- Images displaying A.I.-detected roadway distresses

4. What evaluation method does SPM employ?

Our four-tiered rating has been developed based on PASER Manual's 10-tiered rating, developed by University of Wisconsin-Madison. Each rating indicates the result of the assessment and the required maintenance.

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1: Very Good	→	Do Nothing
2: Good	→	Routine Sealing/Maintenance
3: Fair	→	Crack Repair/Overlay/Patching
4: Poor	→	Major Rehabilitation/Replacement

5. How accurate is the SPM ?

Currently, our artificial intelligence can evaluate pavement condition with accuracy of 90% or higher. On top of the highly reliable artificial intelligence, we perform validity checks by professional pavement engineers for quality assurance.

6. Who performs the data collection for the roads?

Data collection will be conducted by clients. We provide a manual for data collection and on-site instruction for clients, as needed. Lending necessary equipment (GoPro camera, accessories) can also be done with advance notice. Optionally, the data collection can be performed by NHSA depending on location and prior agreement.

7. Can I use something other than a GoPro for data collection?

Since SPM is optimized for GoPro camera, we strongly recommend using GoPro Hero7 or higher version to fully utilize SPM. If you would like to use other devices, please ask us further information.

8. Can I integrate the data with our asset management applications?

SPM provides shapefile to integrate the data with other GIS system. Please ask us for further information.

9. What is offered in the free trial ?

We offer up to 10-miles of assessment services to clients who qualify.

10. What if I have other questions ?

You can reach us either email or telephone to our office to discuss details.

Contact us at: (972) 645-0275 or ask@cnexco.com