Dam Inspection Technology



Traditional

Sketch crack locations by hand
Complicated field inspection forms
Long and tedious labor hours
Subjective evaluations

NEXCO Technology

Map crack location and information

Customized forms and reports online

Broad surface areas captured

Proactive decision-making





Benefits

How does this technology benefit dams?

The consistent and accurate monitoring of cracking behavior in retaining walls is a critical task of maintaining dam facilities. In particular, mapping the location and studying the position, width, and shape of the cracks leads to insight on structural health and future maintenance steps.

NEXCO's ACS and U3S systems not only image the dam surfaces and preserve digital records but extract detailed information about the location and nature of cracks.



The System

The Automatic Camera System (ACS) and Universal Surface Scanning System (U3S) are perfect applications for taking imagery of dam walls. Both of the platforms can use very high resolution digital cameras to take a picture of the target wall, then integrate the pictures into a map of deficient findings. The map is scaled and can be used to detect cracks at varying resolutions (from 0.2mm and up).

Applications

NEXCO supplied the ACS system for a large dam owner so that they may monitor crack propagation over time. The U3S system imaged a set of retaining walls and proximate tunnel surfaces to map water infiltration and major cracking.