

# LET MACHINES HELP YOU PROCESS AND DETERMINE CRITICAL INFRASTRUCTURE

GraniteNet Software is the turn-key Cloud-based platform for public works condition assessment and proactive decision making!



CUES PROVIDES A SERVICE FOR CODING SANITARY MAINLINE PIPES BASED ON PACP CODING STANDARDS.

## *What are the CUES Defect Coding Services with AI?*

CUES provides PACP 6 and PACP 7 coding services to carefully evaluate sanitary mainline pipelines so that field crew inspectors can complete work faster, reduce time on the streets, traffic detail costs, and avoid coding quality issues. Additionally, Engineers can focus on projects at hand to become proactive while ongoing inspections can continue to be carefully reviewed and coded using machine vision so that the Engineers can rely on consistent quality - and allow them to be less burdened and more efficient in executing engineering projects.

## **CUES Defect Coding As-A-Service With AI**

## *How does CUES deliver its Coding Service?*

The Defect Coding As A Service (“DCAAS”) is most efficient when using the GraniteNet Cloud Hosted service because the Artificial Intelligence (“AI”) processing engine resides in the Cloud making it faster and easier to process large and often repetitive (daily) uploads of data. Using the GraniteNet WebSync product, CCTV inspections are transmitted wirelessly from the field to the Cloud when each inspection is stopped, making the upload process automatic and simple for the inspector. Also, data security is maximized from using secure encrypted data transmissions throughout the day, removing the danger of malware/ransomware being spread through portable drives plugged into the network.

Once the inspections are uploaded to the organization’s dedicated GraniteNet Cloud environment, they will be queued for processing by the “AI Machine”. There, the CUES’ proprietary AI engine and its machine learning algorithms will interrogate the video(s) and classify PACP defect codes associated to the frames within the video stream where the defects are located. After the AI machine has rendered its initial evaluation, each inspection is routed to a certified CUES PACP coder for final review and certification. Once approved, the coded inspections are provided to the customer for final review and acceptance.

Results of the service are made visible via the Web through real time dashboards presented to data managers so that they have visibility into progress and can review the work done. The service is that simple!

powered by  **aws**



**CUES Cloud...fusing AI and Cloud Computing  
for superior Asset Management!**



### *The Prescriptive Planning Reporting Service*

Also, as an additional and separate service, CUES offers a sophisticated decision support service based on the results of the processed inspections to help prioritize risk and organize the types of work that should typically be done to remediate compromised infrastructure. The service is called “prescriptive planning” and it can be configured to provide recommendation reports daily, weekly or on virtually any frequency desired – to identify key infrastructure at risk of failing as well as the suggested method of repair/ replacement based on the out-of-the-box decision logic provided by CUES. A big benefit of this service, for example, is being able use maps to visualize problems and select all of the pipelines with similar rehabilitation needs so that utility decision makers can quantify work, budgets and streamline contractor bids for the specific type of work needed to be done (for example a relining project) according to established service level requirements and CIP budget.

For anyone looking to transform their organization from reactive to proactive, this CUES AI service is a turnkey solution to make it happen!

### *More Details*

Utilities/Contractors use the service for:

- ♦ Coding inspections (video recordings) they collect on daily basis, saving operator’s time and increasing overall productivity (footage per day).
- ♦ Coding their legacy archives of videos that were recorded but never reviewed/assessed.
- ♦ Comparing current field inspector quality to machine-based quality to use for training and consistency.

The CUES Defect Coding service accepts data for coding in the following formats:

- ♦ GraniteNet Native database and media (any version of GraniteNet), with online upload using GraniteNet WebSync.
- ♦ PACP Exchange file version 6 or 7. Import NASSCO data into GraniteNet and submit it for coding using GraniteNet WebSync.
- ♦ Contact CUES for more details if you have an on-premise GraniteNet, raw videos to code, or non-CUES CCTV software.

In addition to the PACP format, an Excel spreadsheet may also be provided that can be customized with specific headers that the client requires. This can simplify sharing of completed inspection to outside users, internal tracking and for easy billing reconciliation.

### *Cost*

CUES requires a minimum of 100,000 LF to initiate an annual service contract for the Defect Coding Service.

- ♦ The Cost for fully coded inspections depends on the amount of manual clean-up work per inspection. NASSCO-compliant submittals (with proper header information and ‘must have’ codes) require less preparation and post processing work. CUES will create a quote based on some sample data.
- ♦ The cost ranges from 30 cents to 50 cents per linear foot depending on the deliverables needed and any special requirements such as for urgent turnaround times (if any).

*Please contact your local CUES sales representative or request a Demo for a more detailed discussion!*