

# 3D Scan Wear Analysis

Croatia Industries responded to IMII's first DEMOday call for innovative new technologies that could be demonstrated or deployed in the minerals industry with a pitch to use a portable handheld manufacturing grade 3D scanner in new and innovative ways.

Croatia's aim was to provide accurate and efficient wear analysis reports for mineral processing components/equipment. Traditional wear analysis methods are generally mechanical where surface contact is required and inherent to a level of uncertainty. With digital 3D scanning, uncertainties are quantifiable and known and the results are repeatable. Complete with complementary 3D inspection software, Croatia demonstrated that industry would have the option to monitor critical equipment prone to erosion and/or corrosion more closely and revise operating and maintenance strategies accordingly in response.

Trial deployments demonstrated the addition of the scanning specific software module to the existing software suite to greatly enhanced the ability to analyze scanned surface data. It has enabled expanded capabilities for assessing deviations and color mapping as well as new capacities to display inspection findings graphically with subsequent reporting straight from the software. Internal testing of the new software has revealed powerful tools for capturing and comparing surface profiles coupled with comprehensive graphical reporting options.

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**Proponent:** Croatia Industries Ltd.

**Project Duration:** November 2019 to November 2020

**Project Cost** \$14,885

IMII: \$11,000

Croatia: \$ 3,885