

SPLIT-ONLINE[®] DIGITAL IMAGE ANALYSIS SYSTEM TO QUANTIFY PARTICLE SIZE, SHAPE AND COLOR FOR REAL TIME PROCESS CONTROL OF CRUSHED MATERIALS

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ABSTRACT

The Split-Online[®] Digital image analysis systems to quantify particle size, shape and color of crushed materials have successfully been applied in large-scale mining operations throughout the world. Particle size measurement at various blasting, crushing, sieving and milling stages, have facilitated the industry's desire and need to achieve higher levels of process control and automation by understanding the particle fragmentation variability in the comminution circuit. This paper will 1) summarize applications of digital image analysis in the mining and mineral processing industries and introduce the Split-Online technology; 2) detail an actual recent application of digital image analysis that ultimately lead to the installation of an automatic, non-invasive particle size distribution monitoring system; 3) document how this information is being applied at mining operations worldwide.