

PlantVision™ Image Analysis Software



PIONEERING IMAGE ANALYSIS FOR PROCESS CONTROL AND OPTIMIZATION

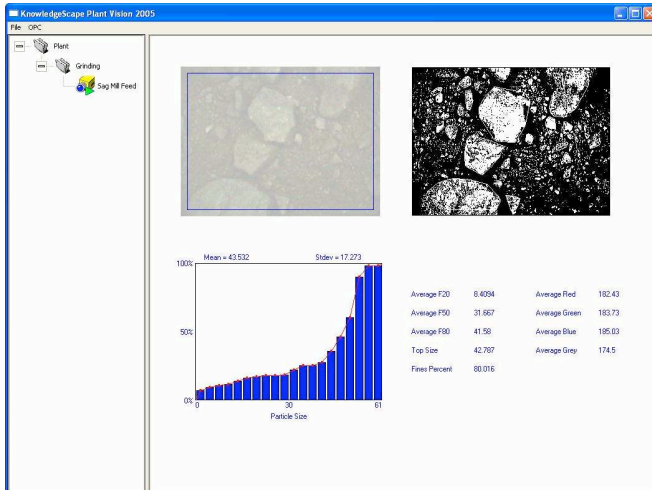


KnowledgeScape has pioneered the use of image analysis in minerals processing plants throughout the world. In the 1990's we were modelling concentrate grade based on froth color analysis. Our flotation strategy to increase rougher and scavenger recovery using froth velocity together with froth depth and pulp level is the best in the industry, and can increase recovery 2-4% or more. Our SAG mill optimization strategies using coarse particle size from the feed belt increase plant production 3-8%. The combination of PlantVision™ and KSX is **the** killer app for process optimization.

Coarse Particle Size Analysis

The PlantVision™ proprietary algorithms measure a variety of statistical data to quantify the feed size distribution and the feed color.

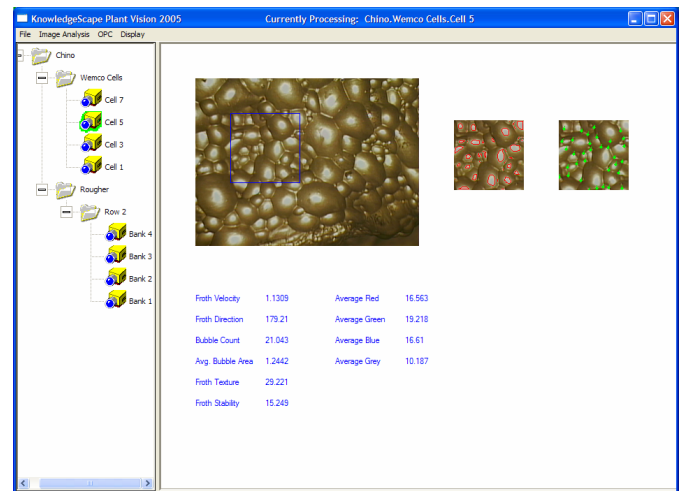
- Average size
- Red, green, blue and gray color components
- F20, F50, F80
- Top Size
- Percent fines



Froth Flotation Image Analysis

The PlantVision™ software uses specially designed algorithms to measure the most important values that characterize the efficiency and performance of a flotation cell.

- Bubble size
- Red, green, blue and gray color components
- Froth velocity
- Froth texture
- Froth stability



Flexible Installation

PlantVision™ can interface with a wide variety of available camera types, allowing for the ultimate flexibility for installation. We can use USB, Firewire, IP (Internet Protocol), CameraLink, or Analog (Coax Video) cameras. This means that we can custom tailor your installation. We can also retrofit the PlantVision™ software on your existing camera installation.





Industry Standard Communication

PlantVision™ makes its data available to any data consumer using industry standard OPC communication. This allows for easy interfacing to DCS and PLC systems, KSX or any other expert control software and data historians such as PHD or PI.

Web Enabled

A typical PlantVision™ installation is web-enabled. It is easy to construct a browser based display for operators and engineers to easily view the camera feeds and data from anywhere. Many of our customers prominently display this information in the control room, where flotation performance can be assessed at a glance.



PLANTVISION IMAGE ANALYSIS SOFTWARE FOR PROCESS CONTROL AND OPTIMIZATION
PRODUCT FEATURE SUMMARY
Coarse particle size analysis <ul style="list-style-type: none">• Average size• Red, green, blue and gray color components• F20, F50, F80• Top Size• Percent fines
Froth flotation analysis <ul style="list-style-type: none">• Bubble size• Red, green, blue and gray color components• Froth velocity• Froth texture• Froth stability
Flexible camera options - USB, Firewire, Analog, IP and file source
Web-enabled
Communication with any PLC, SCADA, DCS or Expert System using OPC

