

## Improving Acquisition Skills Using Continuous Image Quality Assessment

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### Abstract

A system is presented that performs continuous assessment of images acquired on confocal microscopy devices. A background-running system task monitors the acquisition software's current directory. Recent files are sampled at user defined time interval and subjected to a set of image acquisition quality measurements. Synthetic results of these procedures are unobtrusively presented to the workstation user through a series of red/green scaled indicators. Based on issues detected, targeted advices can be obtained that aim at improving next-image quality, and image acquisition skills in the long term. Administrator warnings can be set on a threshold basis, enabling remote alerting of the device or facility manager. The simple design involves Windows scheduled tasks, image metadata access through the LSM Toolbox library, basic image statistics accessed with ImageJ running in the single instance listener mode and the Twitter4J library for the optional quality alert messages.

### Keywords

Image quality, facility management

