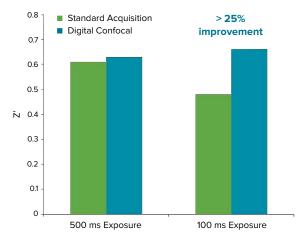


## **Digital Confocal Option**

### For MetaXpress High Content Image Acquisition and Analysis Software

Designed for use as part of MetaXpress® software version 4 and greater, the Digital Confocal† Option significantly increases throughput while maintaining assay quality. The Digital Confocal Option for the ImageXpress® Micro imaging systems enhances contrast of images during acquisition, allowing you to decrease exposure time more than two-fold and increase throughput while maintaining assay quality. Alternatively, assays with low Z'-factors can be improved more than 25%. This intelligent analysis enables researchers to increase their throughput, allowing acquisition and analysis of more than 10 million cells per hour.

The speed and accuracy offered by the new module deliver a real advantage for scientists working in high-content screening, where significant resource is dedicated to screening millions of samples for rare new drug or gene therapy candidates. The integration of ImageXpress Micro systems with the Digital Confocal Option for MetaXpress software provides unrivaled performance for ease-of-use, while providing high speed and quality images researchers can be confident with.

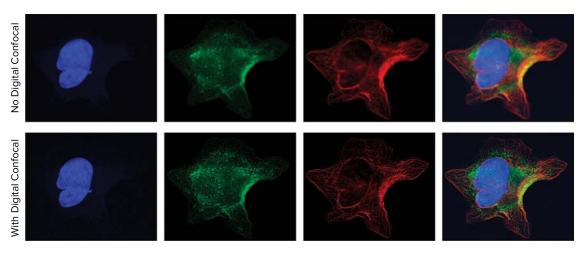


# Assay Z'-factor as a function of acquisition settings

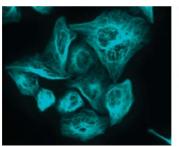
The Digital Confocal Option for MetaXpress software allows you to maintain high Z'-factors even while significantly speeding up your acquisition.

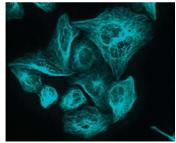
## **Benefits**

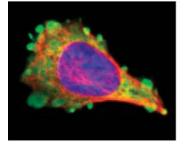
- Enhance image contrast on-the-fly during acquisition
- Improve object segmentation
- Decrease exposure time while maintaining assay quality

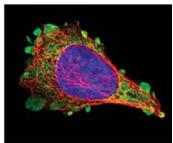


Images with Digital Confocal Option enabled during acquisition (bottom) show cell structures more clearly than without (top), enabling more robust image analysis.



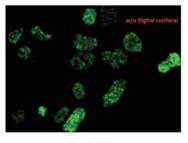


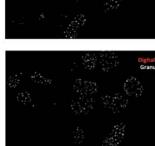


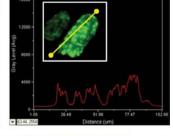


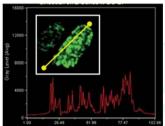
Images of U2OS cells stained for tubulin were acquired without (left) and with (right) the Digital Confocal Option enabled. Analysis of digital confocal images allow better characterization of microtubules.

The overall file size of the digital confocal images (right) is no different from images saved with standard widefield settings (left).









Images of HEK 293 cells containing paraspeckles were acquired with the ImageXpress Micro system without (top) and with Digital Confocal Option (K value 0.063) (bottom). The histograms of a line scan through representative images shows how the Digital Confocal Option can sharpen the intensity peaks of the fluorescent objects. A more accurate count of the paraspeckles was achieved when analyzing the digital confocal images with the Granularity Application Module for MetaXpress software (right).



<sup>†</sup>Using AutoQuant 2D Real Time Deconvolution

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