

Agilent BioTek Imaging Training Video Series

In this training video series, you will learn how to acquire and analyze images and plate reading data from our instruments within the Agilent BioTek Gen5 microplate reader and imager software. These training videos are designed to help you capture, process, and analyze the data you have so that you can publish faster.

Click on the link to watch the video.

Video Name	Description
Basic Image Analysis Concepts-Part 1	This training video explains the concept image thresholding, both in image statistics and cellular analysis functions. There is also a demonstration of how to add Image Statistics to your protocols.
Basic Image Analysis Concepts-Part 2	In this training video, we demonstrate how to determine and add object threshold and sizes for your samples. This video also shows how to adjust advanced detection options such as rolling ball to create cellular analysis and object masking in Gen5.
Basic Image Analysis Concepts-Part 3	This training video explains how to add Object level metrics from Primary Masks, create plugs and subpopulations in Gen5.
Converting from Manual Mode to Experiment Mode	This tutorial will walk you through creating an experiment from a manual mode session, where to visualize and modify protocol settings, how to run your experiment and visualize your data, and finally, how to save protocols for later use in the Gen5 software.
High Contrast Brightfield	This video demonstrates how to use high contrast brightfield for label-free cell counting. It covers settings for capturing images in manual mode, as well as process/analysis steps to obtain accurate cells counts.

Kinetics Overview	<p>This training video demonstrates how to add continuous and discontinuous kinetics to existing imaging protocols and discuss best use for each type of kinetic workflow.</p>
ROI Feature	<p>This training video reviews the ROI feature in Gen5 and demonstrates how to set up an experiment using this feature.</p>
Gen5 File Types and the Image Library	<p>This video discusses different data types in Gen5 and explains where the data saved in Gen5 and how to change that. Additionally, it explains how Gen5 uses tiered file organization systems to save the captured images inside the experiment folder.</p>
Montage Image in Manual Mode	<p>This video demonstrates how to create a montage image in manual mode. By the end of this tutorial, you will be able to capture multi-channel montage images and learn how to apply image stitching to create a single image from montaged tiles.</p>
Image Exposure Settings	<p>A review of the fundamentals in fluorescent imaging and how to adjust acquisition settings to best suit your needs.</p>
Save Color Images in Manual and Experiment Mode	<p>This video covers saving single-color images both in the manual and experiment modes. It also covers the batch image save option in the experiment mode.</p>
Data Management in Gen5	<p>This video explains how to relink image folders to the saved experiment files. Additionally, it shows how to create a zipped file for better managing and archiving the data.</p>
Z-Stack Image in Manual Mode	<p>This video explains how to create a z-stack image in the manual mode. By the end of this tutorial, you will be able to capture multi-channel z-stack images and learn how to utilize image processing tools in Gen5 to create a final z-projected 2D image for better visualization of the capture 3D image.</p>

Image-Based Autofocus	<p>Gen5 has five different image-based autofocus methods. At the end of this video, you will understand how image-based autofocus works and the default autofocus settings in Gen5.</p>
Laser Autofocus	<p>This training video reviews how laser autofocus works, when the laser autofocus accessory should be used, and how you can select to use laser autofocus for your experiment.</p>
Plate Definition	<p>This tutorial will walk you through the steps to create a cell count in Gen5's manual mode workspace as well as general use of the interface. By the end of this tutorial, you will be able to capture multi-channel images, add preprocessing to your image, and create a basic cell count.</p>
Custom Vessel Definitions	<p>In this training video, you will learn three different ways to create a new plate type or custom labware in Gen5.</p>
Basic Cell Count in Manual Mode	<p>This tutorial will walk you through the steps to create a cell count in Gen5's manual mode workspace as well as general use of the interface. By the end of this tutorial, you will be able to capture multi-channel images, add preprocessing to your image, and create a basic cell count.</p>