

CellAssist[®] and CellAssist 50 Solutions

- Imaging
- Analytics
- Automation
- Better Biology

AA24 A3
1745 65.070

AA24 B3
1894 62.460

AA24 B2
1124 51.330

AA24 A2
942 40.220

AA24 B1
1377 55.950

AA24 A1
1330 56.510

Setting new standards for
automated live cell imaging[™]

CellAssist and CellAssist 50 Automated Imaging Solutions

Take Your Automated Live Cell Imaging to 100+ Focal Planes

- Consistently acquire and analyze 1,000's of phase contrast and bright-field images per scan at 4x, 10x, and 20x
- Image 3D cell structures and suspension cells at 100+ focal planes each 2.0 μm to 50.0 μm apart with a z-range of 4.0 mm
- Automatically image in 6-well through 384-well flat and round bottom plates with excellent registration
- Access databases of images, metrics, and barcode activity logs from your lab, office, and home



CellAssist
Benchtop Imager
Size 0.5m x 0.5m x 0.5m
Weight 22kg



**CellAssist Software and
Analysis Workstation**
90 terabytes internal disk storage (expandable with
external storage in 108 terabyte increments)



CellAssist 50
Imager & 50-Plate Incubator
Size 0.95m x 0.68m x 1.80m
Weight 195kg

▶ CellAssist Solution

- Benchtop, single-plate environmentally controlled imager automatically captures thousands of single or time-series scans
- Simultaneously supports multiple experiments and users while maintaining easy access to cell culture plates including flat and round bottom

▶ CellAssist 50 Solution

- Integrated imager with 50-plate incubator, with each plate having a separately defined imaging schedule
- Robotically controlled frequent, consistently timed, 24/7, remote imaging of up to 50 plates

▶ Included in Both CellAssist and CellAssist 50 Solutions

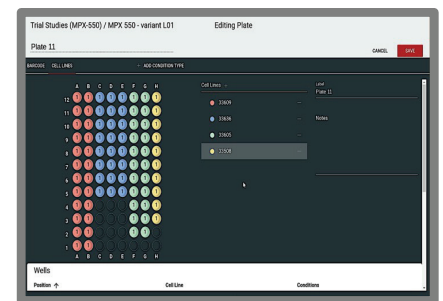
- **CellAssist Imager** -- High-quality phase contrast and bright-field imaging at 4x, 10x, and 20x in 6-well through 384-well flat and round bottom plates at 100+ focal planes (user-selectable) with a z-range of 4.0 mm
- **CellAssist Documentation System** -- Easily captures, with time-stamped barcode logs, critical information about researchers' cells and experiments
- **Environmental Control** -- Temperature and gas control (plus humidity with the CellAssist 50)
- **CellAssist Software and Analysis Workstation** -- A suite of project set-up tools, secure data-handling, centralized databases of projects and scan activity, and charting and analysis tools

Automated Live Cell Imaging & Analytics

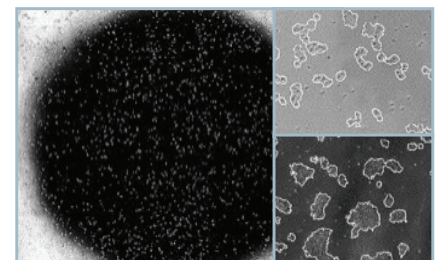
The CellAssist Software & Analysis Workstation together with the powerful CellAssist Imager are standard to both the CellAssist and CellAssist 50

► CellAssist Software & Analysis Workstation

- Calculates and stores **metrics**, including growth rates, confluence, colony size, and colony area
- Uses advanced stitching and auto-focus **algorithms**
- Builds **centralized database** to manage, track, and compare images, data, and workflows
- Provides time-stamped **barcode activity logs** and **set-up tools**
- Provides **remote viewing** of scan results from the office, home, and with **collaborating researchers**
- Multi-client **remote access** and instrument management across networked Thrive instruments
- **Archives data and images** locally with 36 TB to 90 TB of internal RAID 10 storage, add-on storage, mapping to selected servers



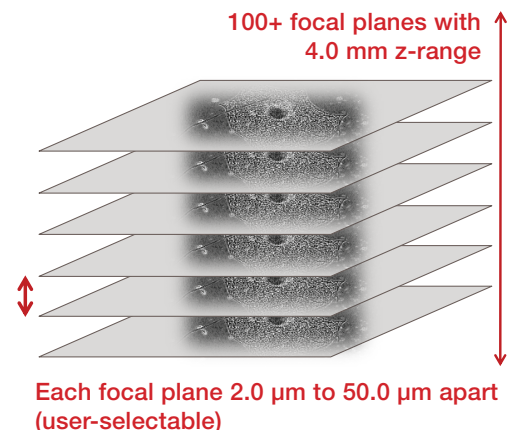
Project Set-up Tools



Stitched Images

► CellAssist Imager

- Adherent and suspension cells, 3D cell structures, organs-on-a-chip, and tissues
- Phase contrast and bright-field at 4x, 10x, and 20x
- 6-well through 384-well flat and round bottom plates
- 100+ focal planes each 2.0 μm to 50.0 μm apart (user-selectable) with a z-range of 4.0 mm
- Whole well, center-of-well, and regions of interest scans
- Time-lapse images with excellent registration to track and characterize single cells, colonies, and plaques



CellAssist Solutions: Capabilities and Benefits

► Capabilities

Quantitatively assess cell and colony growth, confluence, doubling rates and colony size

Capture 1000's of 5-megapixel images at 100+ focal planes each 2.0 µm to 50.0 µm apart (user-selectable) with a z-range of 4.0 mm

Acquire comparable stitched whole well, center-of-well, and regions of interest stitched images for an entire plate with excellent registration across multiple scans

Capture and record key workflow details and status of cells through imaging

► Benefits

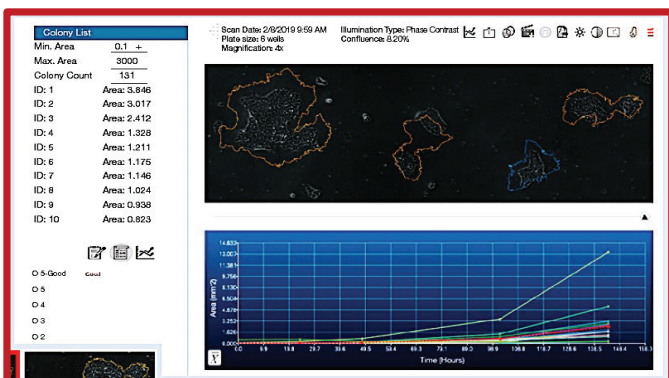
- Users define time periods of interest
- Enables accurate assessment of cell health and cell migration

- Enables superior imaging and characterization of adherent and suspension cells, organoids, organs-on-a-chip, and tissues
- Provides better characterization and deeper insight into cell morphology and changes

- Images from designated regions of interest to all the cells in all the wells
- Allows for colony and single-cell tracking over time, even though plates may be sparsely seeded, or inserted and removed multiple times

- Automatically captures time-stamped barcode activity tracking logs
- Enables comparison of previous experiments to optimize and ensure reproducibility

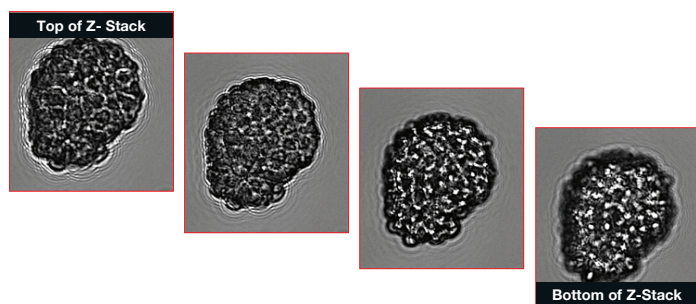
Numbers and measures area of all colonies:



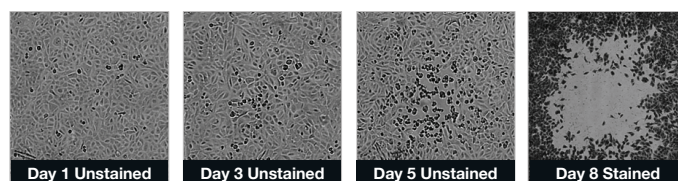
Obtain objective metrics for better insights:



Image organoids with 100+ focal planes:



Conduct viral plaque assays without staining:




Learn more at: www.thrivebio.com

Thrive Bioscience, located in the Boston, Massachusetts area, provides instruments and software solutions for imaging, analytics, automation, and reproducible cell and tissue culture imaging. Our products empower biologists by combining advanced software, microscopy, and robotics to acquire, organize, and analyze images of all the cells, in all the wells, in all the plates, across labs, and across time.

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