Image Analysis

Routines for Alignment, Inspection, and Drop Analysis

Product Description

Custom image analysis routines are enabled in the JetServer™ and Jetlab® control programs by adding a runtime version of the Aphelion image analysis software to a subsystem using a Jetdrive V and video capture or to a Jetlab® Printing Platform. These routines allow for:

• improved and additional calibration / alignment options;
• measurement of droplet size, velocity and trajectory polar angle from vertical direction; and
• surveying of printed spot patterns (Jetlab® Printing Platforms, CT-VC-core).

Standard Features

• Generation and display of scales over both vertical and horizontal camera images, enabling rapid, accurate manual measurements.
• Multiple selection algorithms and tuning tools for automatic edge detection.
• Algorithms for spot detection in both high contrast and low contrast images (low contrast CT-VC-Core)
• Automated measurement of drop parameters: diameter, velocity, trajectory angle (one plane).
• Automated measurement and location of fiducials and printed features. Used for alignment of drops to substrate features and rotation correction.

Available Options

• Aphelion developer version for standalone work on image processing/analysis.
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Ordering Information

**CT-VC-core**  Image analysis software and custom image analysis routines. Includes low and high contrast spot detection, drop placement survey, and drop analysis.

**CT-VC-base**  Image analysis software. Includes high contrast spot detection and drop analysis.

**CT-VC-drop**  Image analysis software for drop analysis. Only available on jetting subsystems.

### Specifications*

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<th>Model</th>
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| Jetlab® II (substrate – 10:1 zoom) | 2.1 μm / pixel – max zoom  
                                  | 21 μm / pixel – min zoom  |
| Jetlab® II (observation – fixed focal length) | 6.5 μm / pixel  |
| Jetlab® 4 (substrate)  | 4 μm / pixel        |
| Jetlab® 4 (observation – angled) | 6.5 μm / pixel  |
| Jetlab® 4xl-A (observation – horizontal) | 6.5 μm / pixel  |

* note: for standard Jetlab® II and Jetlab® 4 optics and camera

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