Clarity™ 3.0 Machine Vision Software

Clarity™ 3.0 is a Graphic User Interface (GUI) software package that allows a user with little or no machine vision software experience to develop an application for use on JADAK’s smart cameras. Clarity provides you with as much or as little control as you want in designing your machine vision inspection solution and is easier to use and more intuitive than other machine vision software applications. A powerful tool with many standard features, Clarity provides the building blocks for the most common machine vision tasks and can be updated and modified as your product inspection and tracking needs change.

Coupled with JADAK’s unparalleled customer support teams, Clarity allows you to quickly and easily develop a machine vision application and tackle ownership of your machine vision project, while benefiting from JADAK’s deep experience in machine vision project development.

Clarity 3.0 includes enhanced features and functionality to all of the pre-existing plug-ins, as well as four new plug-in functions!

Choose JADAK as your machine vision partner...

JADAK is the #1 supplier of embedded machine vision solutions to the healthcare market, providing both smart camera imagers as well as Clarity 3.0, our user-friendly software. Machine vision uses image processing to inspect for visible characteristics, analyze results and record findings, leading to increased automation, consistency and efficiency. Smart cameras are used to obtain images, then the machine vision software processes the images to provide information about them.

With years of machine vision experience in the medical market, JADAK’s updated machine vision/image analysis software, Clarity 3.0, provides the flexibility to configure and control basic machine vision solutions with smart cameras. Unlike some other development tools that require a separate computer to be part of the final machine vision solution, Clarity generated machine vision algorithms are downloaded directly onto all of JADAK’s smart cameras. Clarity is run on a Windows PC to generate the machine vision scripts, which are then downloaded to Clarity-compatible cameras. The cameras are mounted to your inspection area to perform the tasks you require. Running Clarity directly within the hardware eliminates the need for a separate host processor in the device, saving space, cost, reducing the device’s overall footprint, and increasing device throughput.

Alternatively, the Clarity 3.0 Software can be configured to function with imagers where the inspection logic is shipped to and resides in a host, making the software camera-agnostic.

Functions Include:

- Presence/Absence
- Count
- Pattern Match
- Barcode Decode
- Circle/Edge Finder
- Measure
- Image Process
- Color Detection
- Enhanced Liquid Level Detection
- Cap Classification
- Bar Code Decoding
  on trays or racks
- Color Calibration
With a simple, easy-to-use, and intuitive graphical user interface (GUI), Clarity software and Clarity-compatible hardware provides the right-sized approach for automated inspections. JADAK has easy to follow videos that walk you through the process of how to set up your inspection logic using Clarity. ‘Help’ Menus on the right side of the screen within the Clarity software provide additional support by simply clicking the F1 Key. The Output plug-in functionality is used to configure how the machine vision results are communicated to the host system.

Clarity machine vision software is designed for inspection applications in healthcare, manufacturing, shipping, packaging, and other operations that require improved quality through an automated inspection process.

Clarity applications can include, but are not limited to, any combination of the following:

- Inspecting a test tube, biological sample, or product to confirm color
- Inspecting a product to ensure accurate labeling or perform logo detection for anti-counterfeiting purposes
- Counting items such as pills or parts on a production line
- Reading a barcode on an item for validation
- Inspecting an object to ensure a feature is present, such as caps on test tubes, or parts on a finished product
- Inspecting an object to measure its size

JADAK's Clarity Compatible Smart Camera Devices Include:

- **Allegro IVD 6MP Smart Camera**
  - A smart camera that includes FPGA capabilities and onboard CPUs

- **FM-5 and FM-6 Fixed Mount Imager**
  - Designed for applications that require aggressive 1D/2D barcode scanning and image processing functions.

- **VIBE**
  - A close-focus smart camera designed for barcode scanning and machine vision applications within devices where space is at a premium.

ABOUT JADAK:

JADAK, a business unit of Novanta, is a market leader in machine vision, RFID, barcode, printing, and color and light measurement products and services for original equipment manufacturers. The company designs and manufactures embedded detection and analysis solutions that help customers solve unique inspection, tracking, scanning and documenting. The company is ISO 9001 and ISO 13485 registered.

Novanta is a trusted technology partner to OEMs in the medical and advanced industrial technology markets, with deep proprietary expertise in photonics, vision and precision motion technologies. [www.jadaktech.com](http://www.jadaktech.com)

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