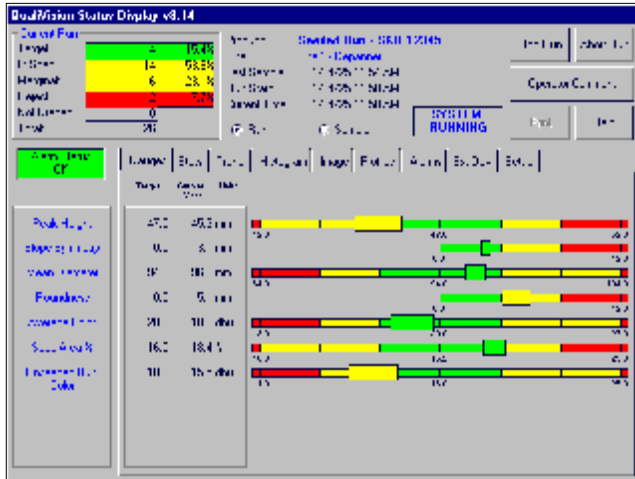


QualiVision Analysis Software

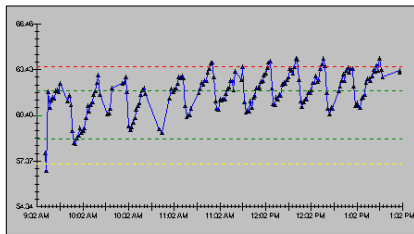
Measurement, Analysis and Reporting for Bakery Products



System Description

The QualiVision software is a comprehensive suite of measurement, analysis, reporting and archiving functions, designed to meet the needs of plant floor operators as well as plant managers.

On the plant floor, the software displays shape, size, dimensional, color and external data in a variety of graphical and numerical formats. Operators have fast and easy access to current results, trend graphs, and alarm conditions. More detailed information such as reject counts by result type, histograms and measurement statistics are also available.



Configuration of the software is simple and flexible. Measured results, system alarms, result names, and control limits are all customizable on a product-by-product basis. Other parameters such as automatic rejection and archiving methods can also be configured differently for different products.

The software supports both the QualiVision CSx/At-Line and CSx/Over-Line systems, and can automatically scan up to a total of 4 QualiVision sensor heads. External data such as weights and moistures can also be obtained and incorporated directly into the QualiVision software, and are then automatically displayed and archived along with the shape/size/color data.

All data is stored in an industry-standard MS-Access database, to ensure compatibility with 3rd party software packages such as MS-Excel, Oracle, etc. Customized queries and reports can also be easily created.

Key Benefits:

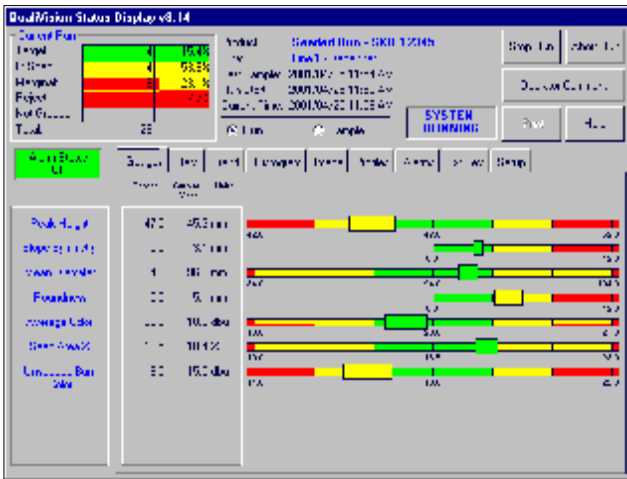
- Simple, 'foolproof' operator interface (touchscreen-driven)
- Results displayed in numerical, graphical and statistical format
- Built-in SPC module, including histograms and trend charts
- Full data storage in MS-Access format
- Interfaces to external devices such as weigh scales, moisture sensors and pH meters
- Can export raw data to other software packages (e.g. SPC, ERP)
- Supports unlimited lines and products
- Simple to setup, calibrate and operate
- Performs over 50 analyses, including:
 - Min/Max/Mean Diameters
 - Min/Max/Mean Heights
 - Length and Width
 - Surface Area and Volume
 - True Bake Color (w/o topping)
 - Topping Color and Coverage

System Features

The standard QualiVision software package includes:

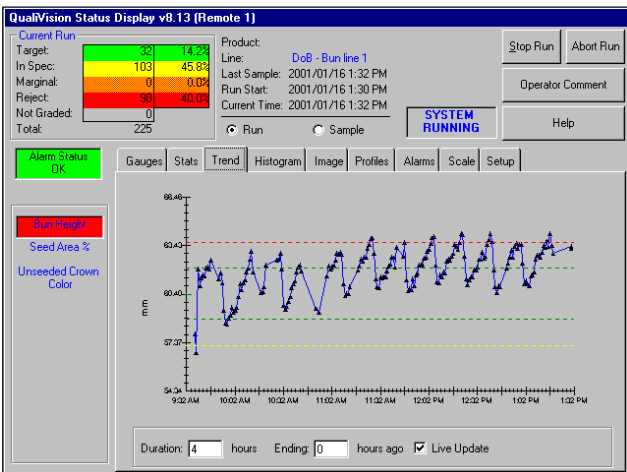
- Completely configurable analysis methods for an unlimited number of products
- Flexible data archiving format (allows user to configure drive location, archive days, backup files, etc.)
- ODBC-compliant database structure allows data to be accessed by other software, such as ERP systems and SPC packages
- Unique Result Calculator allows customized analysis methods to be created (e.g. use Volume and Weight to calculate Density)
- Windows NT operating system, ensuring compatibility with existing plant networks, printers, etc.
- Capability to support up to 4 QualiVision Sensor Heads, each running different products

Software Screen Descriptions



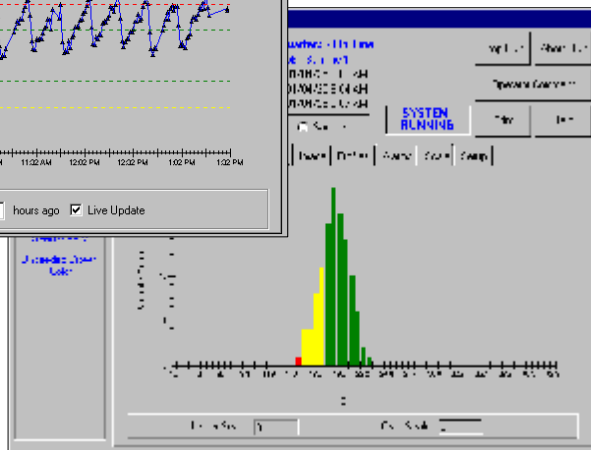
Main Screen

- **Run Counts:** Displays the number and % of each quality category (Target, InSpec, Marginal, Reject)
- **Run Summary:** Displays the current run information (Product, Line, Start Time)
- **Alarm Status:** Indicates whether a system alarm is active
- **Results Table:** Lists all active Result Names and gives Target Values and Measured Values
- **Result Gages:** Displays Result values graphically; also shows Result variability (width of indicator), and Upper/Lower Control Limits
- **Operator Comment:** Allows users to enter pre-defined or free-form comments



Trend Graph Screen

- Displays the historical data for the selected Result, with superimposed Control Limits
- Allows user to define the time scale of the graphs



Histogram Screen

- Displays the distribution of all measured results for current run
- Highlights bin columns according to their category (e.g. green for Target, red for Reject)
- Indicates the number of Results outside of the displayed range

Statistics Screen

- Displays a table of statistical values for each measured Result (Mean, Std. Deviation, Cp κ)

Image/Profiles Screens

- Displays the images (overhead and 3D profile images) of the last measured product

Alarm Screen

- Provides a list of all alarms (active and non-active) for the current run

External Devices Screen

- Displays all connected external devices (e.g. weigh scales), and allows data to be retrieved from devices