OMNICHECK 360 DETECTION SYSTEM OPERATING MANUAL

Contents

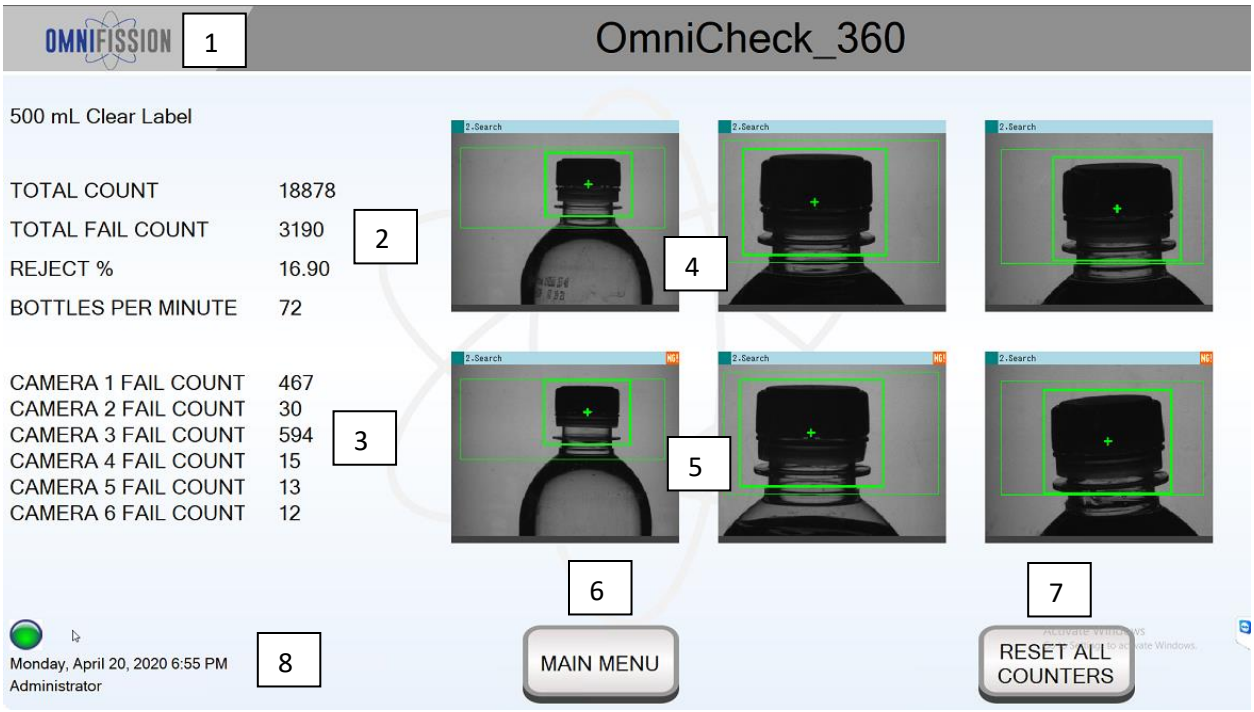
REVISION HISTORY

REV.	DATE	AUTHOR	APPROVED BY	DESCRIPTION
1.0	Jan 13 2020	Adam Szekely	Adam Szekely	Document Creation

INTRODUCTION

The Omnicheck 360 system is a multi camera inspection system. It can be configured from 3 to 8 cameras. Number of cameras is dependent on the inspection requirements. Using this document, a user can navigate through all the vision system interface pages. This document is to be used in conjunction with onsite training and installation from Omnifission Personnel.

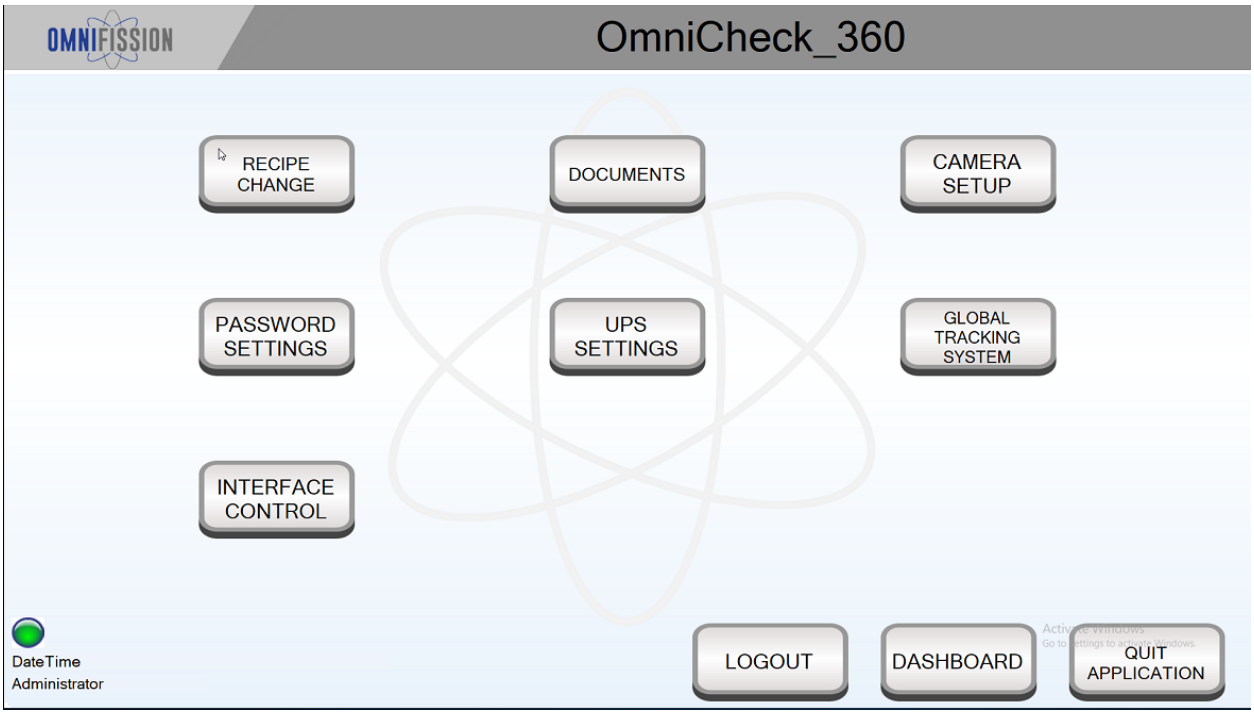
DASHBOARD PAGE



DESCRIPTION

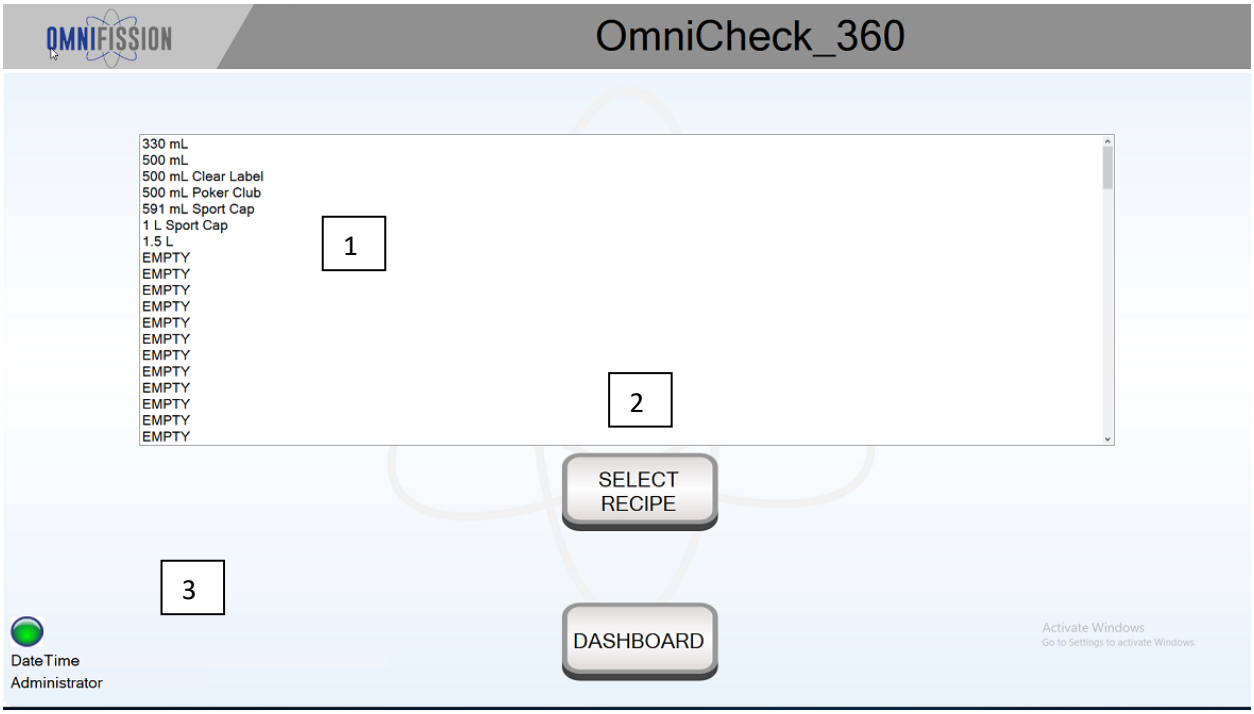
1- Keyboard pop up area. Touching this on any page will pop up an onscreen keyboard
2- Overview of inspection and machine operation area
    a. Name of current recipe
    b. Total throughput and rejects with a reject rate
    c. Inspection rate
3- Individual camera rejects. NOTE: addition of these rejects is not going to add up to total reject. If an inspection failure is caught by two cameras both cameras reject value increases but only one reject value is increased in the total reject number.
4- Top three displays show the throughput images. NOTE with a more than 3 camera configuration only the cap and fill level inspection cameras are shown. The rest of the cameras are displayed on the inspection pages.
5- Last rejected Image of each individual cameras.
6- Main Menu push button.
7- Reset All counters NOTE: may not be visible depending on the log in status.
8- Date / Time and user logged in. Green button shows operating connection to the PLC.

MENU PAGE



Menu page buttons only show up based on user level. Administrator shows all the buttons.

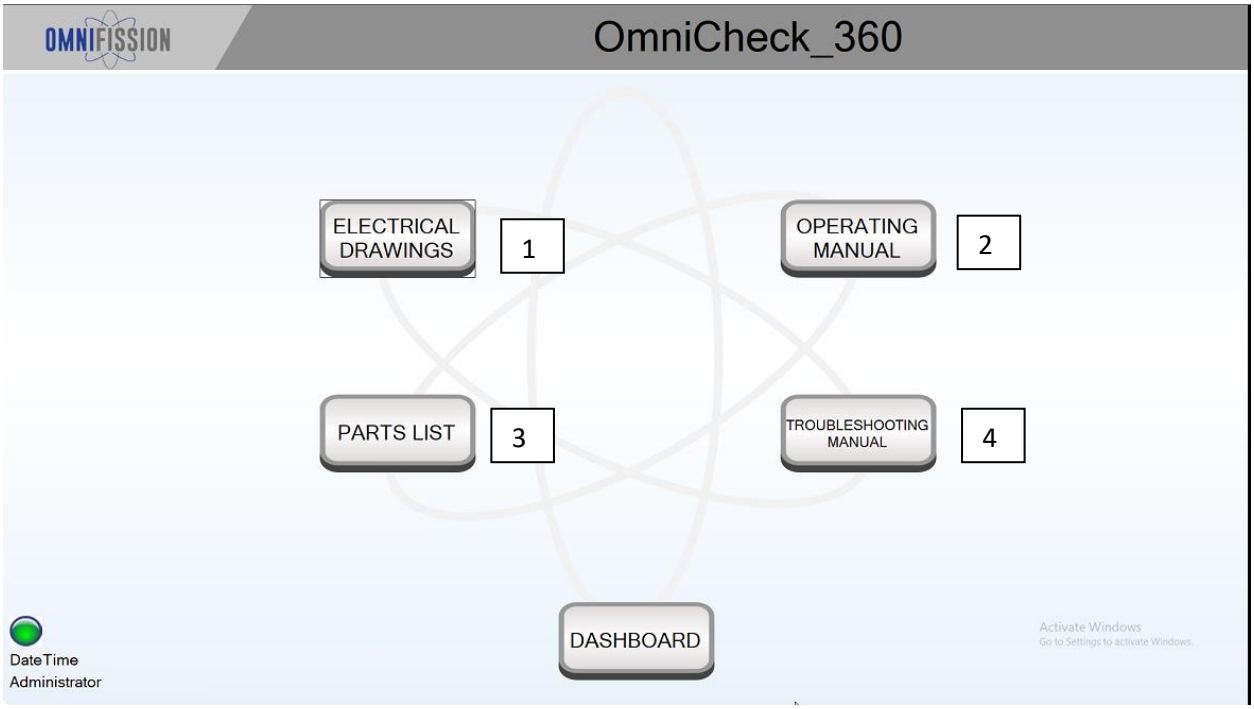
RECIPE CHANGE SCREEN



Description

1. Configured Recipe names maximum of 178 (based on vision controller used)
2. Program selection push button when pressed the selected program is loaded into the vision controller, PLC values into the PLC and camera servos are activated to the required position.
3. Message weather the change was successful

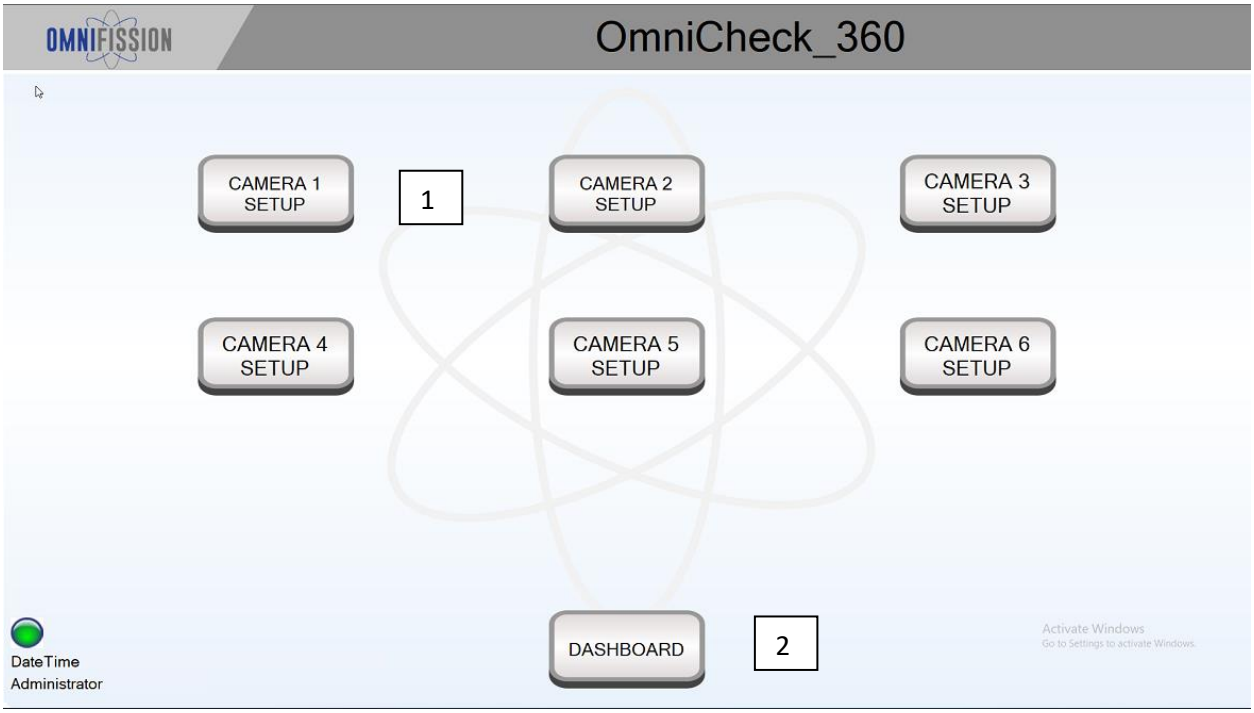
DOCUMENT PAGE



Description

1. Electrical drawings
2. This manual
3. Spare Parts List
4. Trouble shooting Manual

Camera Setting Page



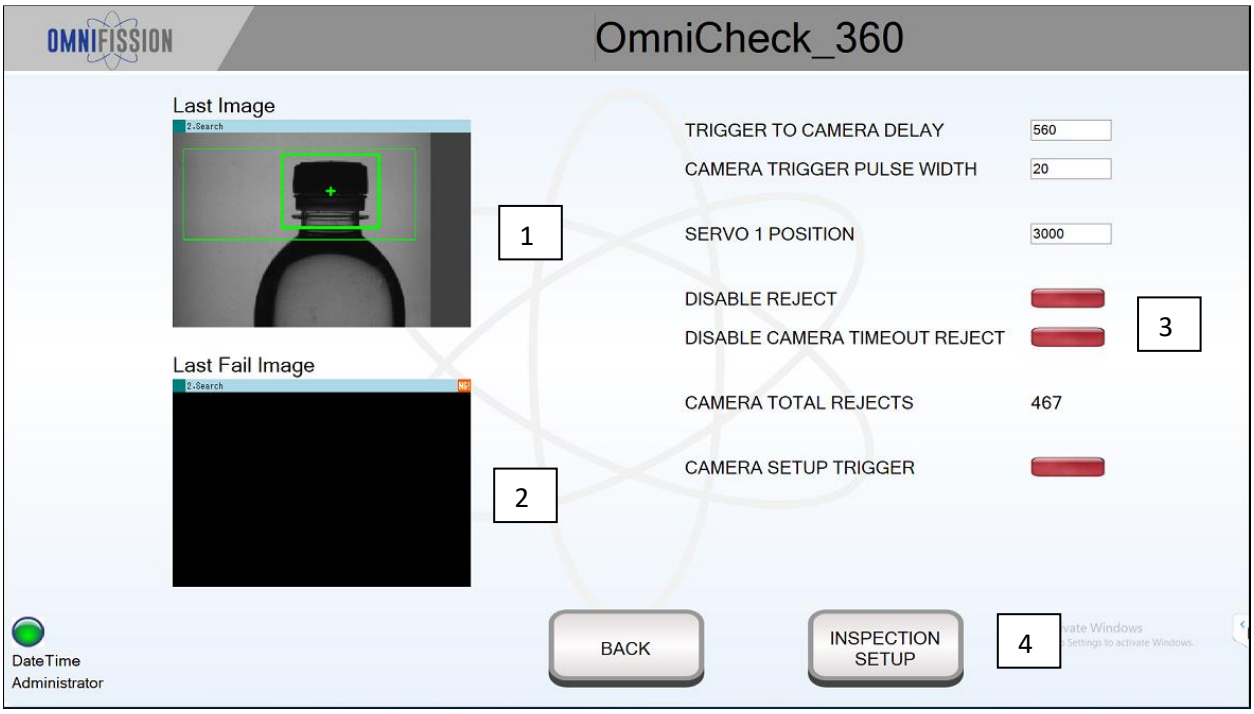
Description

1. Camera selection push buttons
2. Return to Dashboard pages

Note: not all camera settings are displayed using these buttons. Only the thresholds and tracking values for that specific camera is displayed.

Some thresholds may be different depending on what inspection tool is used.

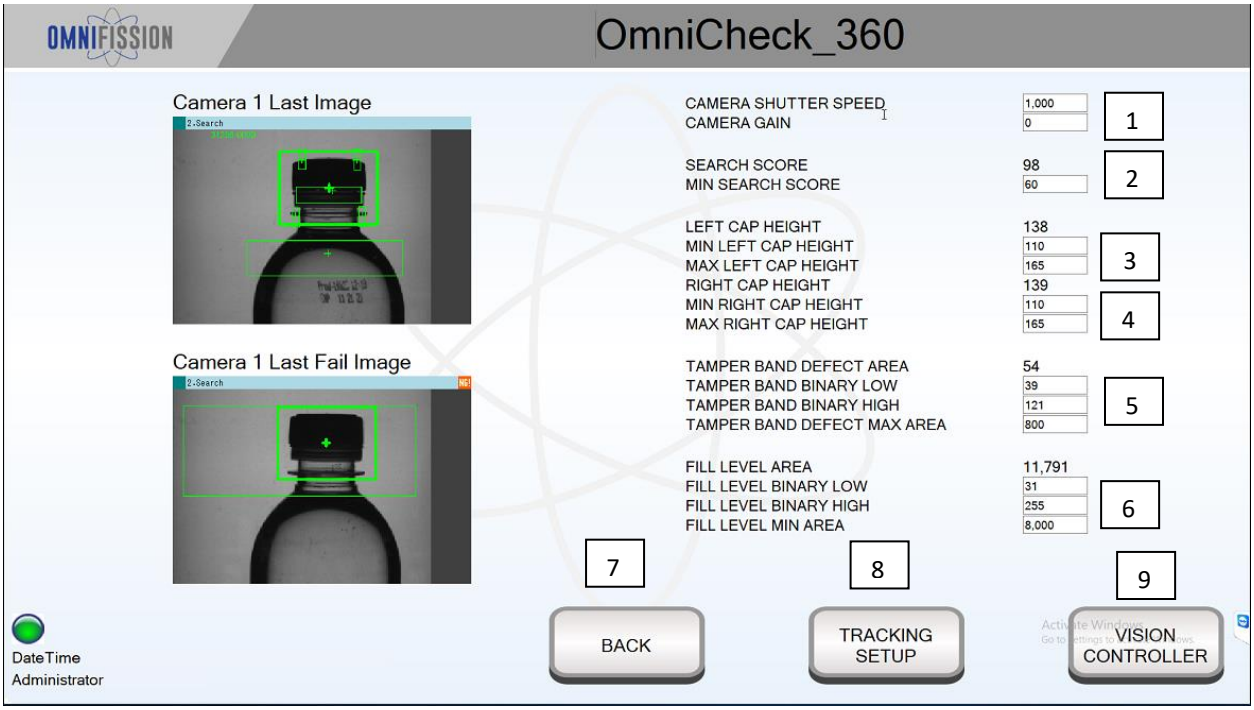
CAMERA 1 SETUP PAGE



Description

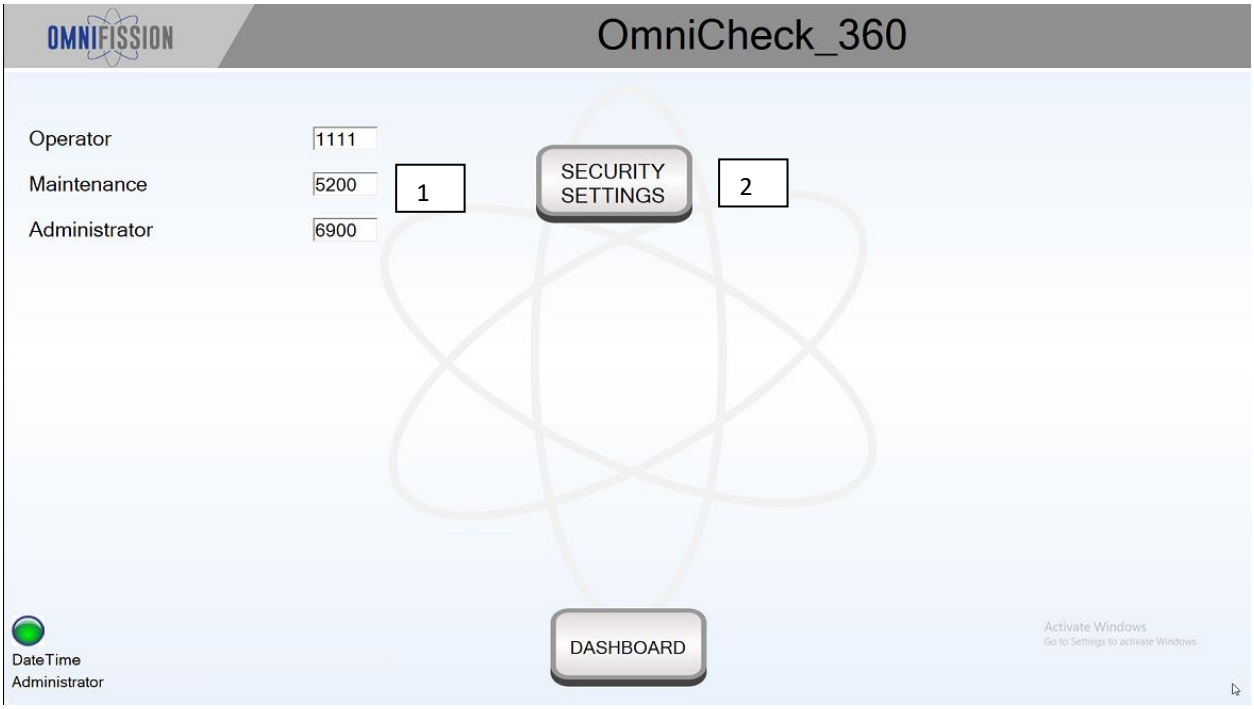
1. Throughput of Camera 1 Image only
2. Last reject of camera 1 only.
3. Adjustment area
    a. Trigger to Camera delay is how many pulses after the trigger sensor should Camera 1 be triggered.
    b. Camera Trigger pulse width how long should the camera be triggered in milliseconds
    c. Servo position how high or low should the camera be positioned
    d. Disable reject to prevent rejection from this camera only as it is being set up
    e. Disable camera timeout to prevent rejection when the camera inspection is too long.
    f. Total camera rejects it is reset by the dashboard page total reset button
    g. Camera setup trigger used to statically fire the cameras when the conveyor is not moving.
4. Accessing the threshold settings for this camera.

INSPECTION THRESHOLDS



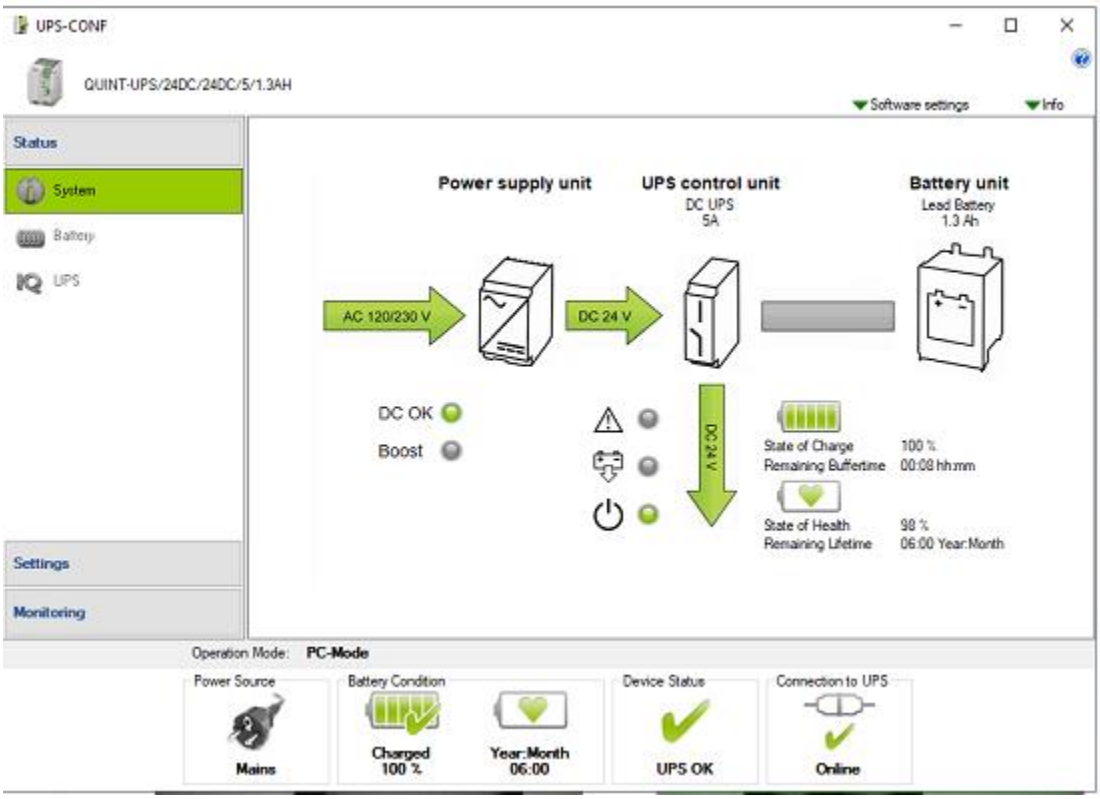
1. Camera shutter speed and gain adjustment
2. Cap search comparison score. Cap search is the bold rectangle on the Throughput image
3. High cap / Tilt cap inspection. Small rectangles on the cap and the carry ring. The two on the left side are for left inspection.
4. Same as above but for the right side of the cap.
5. Tamper band inspection dim rectangle in the tamper band area of the cap.
6. Fill level inspection large rectangle below the cap where the fill level is inspected.
7. Back to the main menu page
8. Back to the previous page
9. Access to the flow chart of the inspection

PASSWORD SETUP

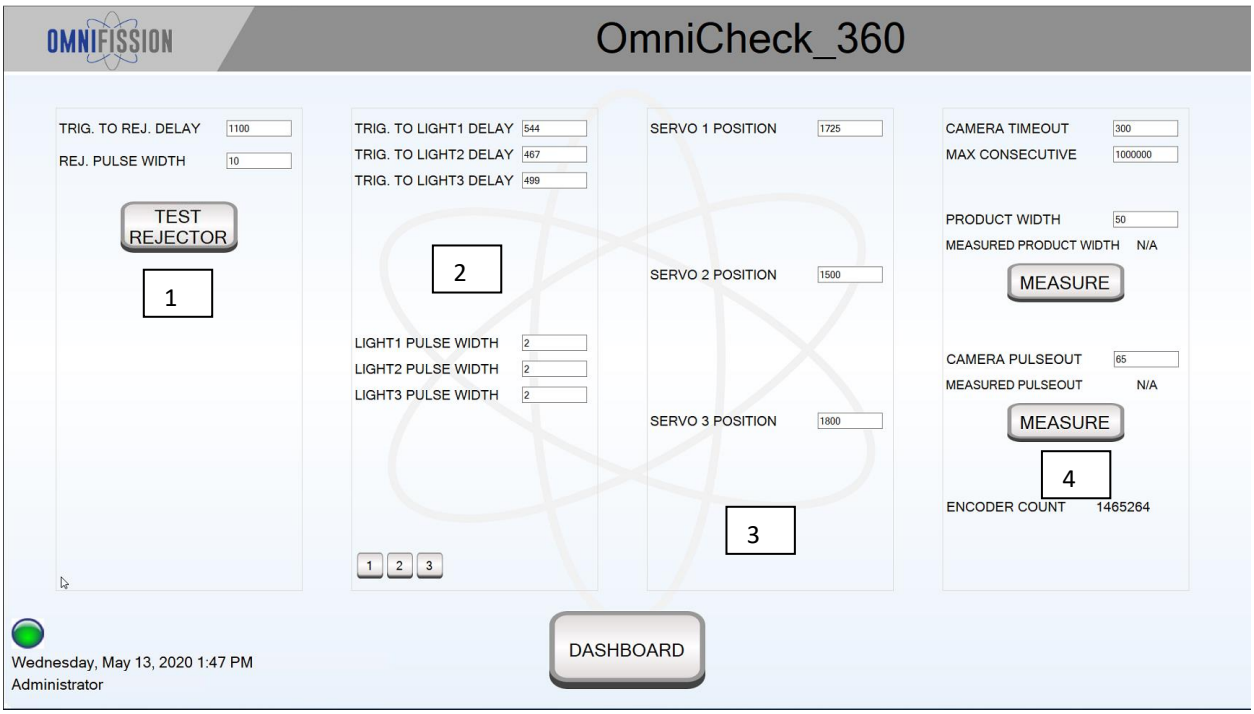


1. Current users and their corresponding passwords
2. Database access to modify which user has access to what button.

UPS CONFIGURATION



GLOBAL TRACKING PAGE



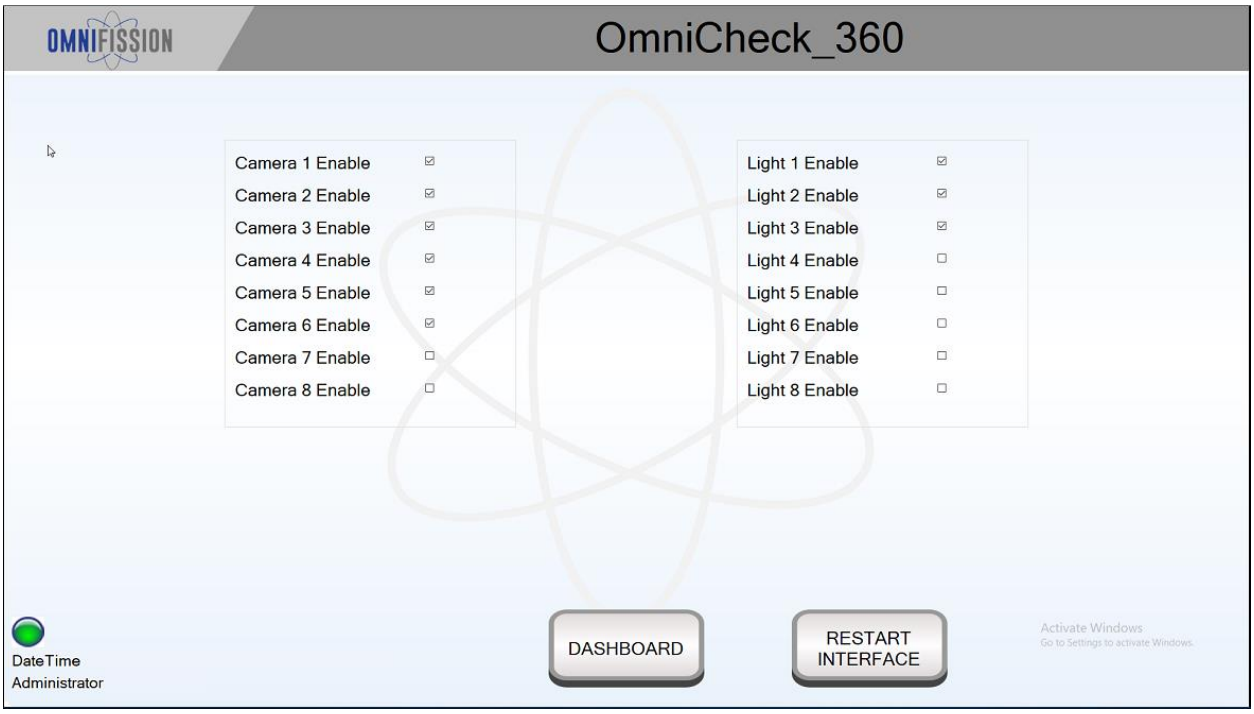
1. Rejector configuration panel.
    a. Trig to rej delay how many pulses between the system trigger and center line of rejector
    b. Rej pulse width how long should the solenoid be powered in ms.
    c. Test rejector push button to cycle rejector once per push
2. Light configuration panel
    a. Trig to Light delay is the amount of pulses from system trigger until the respective light is activated
    b. Light pulse width how many ms should the light be activated
    c. Buttons to test the light

NOTE only 3 lights are shown on above picture, it can be as high as 8 lights depending on the interface configuration.

3. Servo configuration panel
    a. Servo position the value to move the servo. Range between 25 and 18000. The higher the number the higher the servo moves.
    b. Reset position is to home the servo to the bottom limit switch then back up to the configured position
    c. Reset error is when the servo system limit switches do not work.

4. Encoder / Consecutive reject limit setting.
    a. Camera Timeout to be set just slightly bigger than the slowest inspection time
    b. Product width measure and set it slight bigger than the measured width. This value is for trigger blanking
    c. Camera pulse out Measure by placing two touching containers. Set the value slightly smaller than the measured value.

INTERFACE CONTROL



Above checkboxes are activated depending the number of cameras and lights are installed.