



Mirrabooka

Providing software solutions to the sugar industry for more than 30 years



CaneScan

The CaneScan unit was developed in conjunction with Sugar Research Australia. It features the SRA developed NIR JScan package, together with the Mirrabooka sample tracking software.

The role of this unit is to prepare cane samples, control the movement of each conveyor and record the analysis of each sample collected.

Features:

Samples tracked as they progress along the conveyors, using proximity detectors to determine the belt movement.

Samples may be retained for further analysis, or dumped if no further processing required.

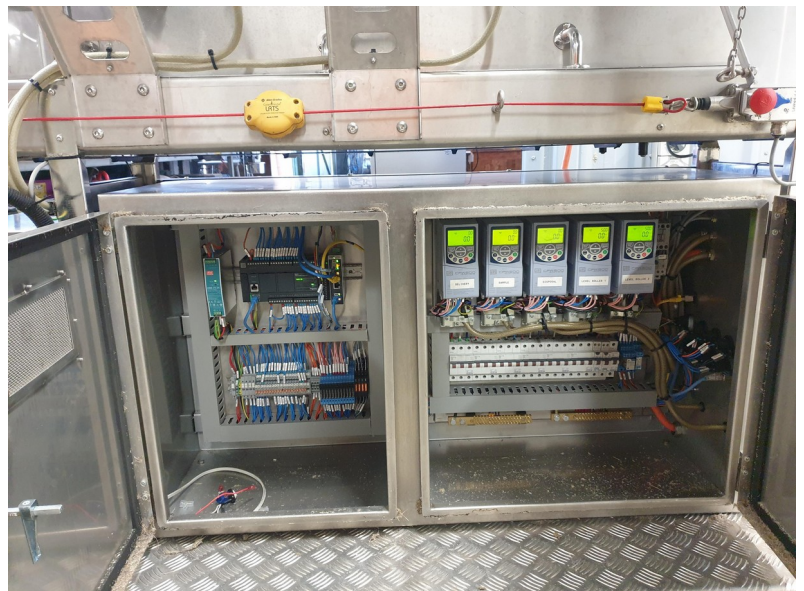
Mimic display illustrating status of the sample.

Important notices generated by the system displayed on the Operator Screen.

Barcode scanner for entering sample ID.

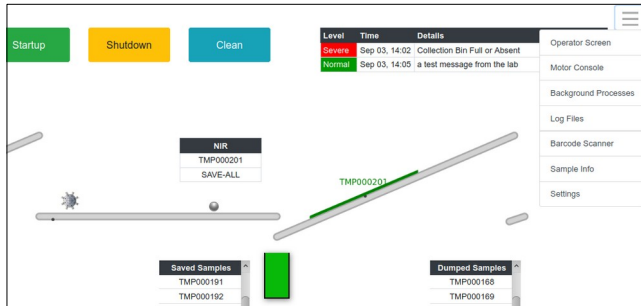
Motor console screen is available to run the conveyors manually. Typically used for testing conveyors, or for diagnostic purposes.

Remote access using a 4G based internet router.



Application Menu

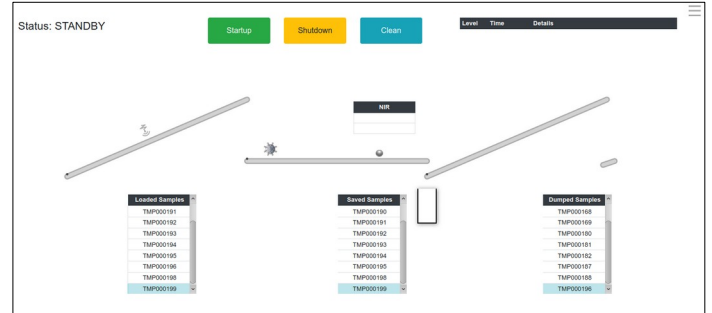
The application running on the operator panel touch screen consists of a number of screens, accessible from the menu.



Operator Screen

This is the main screen for operating CaneScan.

The system is operated via buttons on the screen, together with physical buttons elsewhere on the operator panel, such as the Start button. The current status of the system is indicated on the operator screen.



Processing Samples

When the system is in *Running* state, it is ready to process samples. Instructions to the operator are presented in yellow at the bottom of the screen.

The sample ID is entered using the barcode scanner, and is then displayed in green on the operator screen.



New Sample ID: TMP000200

Temp ID

Load Sample and Press START

Once a sample has been successfully entered and the cane sample is loaded, the conveyors are started by using the button on the Operator Panel.

Delivery Conveyor and Cane Sensor

As the cane sample moves along the delivery conveyor, it is sensed by the delivery cane sensor. This sensor is illustrated on the display and will show green when cane is present and grey when absent. Once the new sample is sensed, it will appear on the display as a green line moving along the conveyor.



Analysis Conveyor and Near Infra Red

The display illustrates the state of the Near Infra Red (NIR) sampling. When the front of the cane sample reaches the NIR sensor, the NIR will start scanning the sample. The NIR box turns green to illustrate that analysis is in progress and will show the sample ID. When the end of the cane sample reaches the NIR sensor, the NIR will stop scanning and process the analysis. It will then return a disposal instruction: *Save or Dump*.



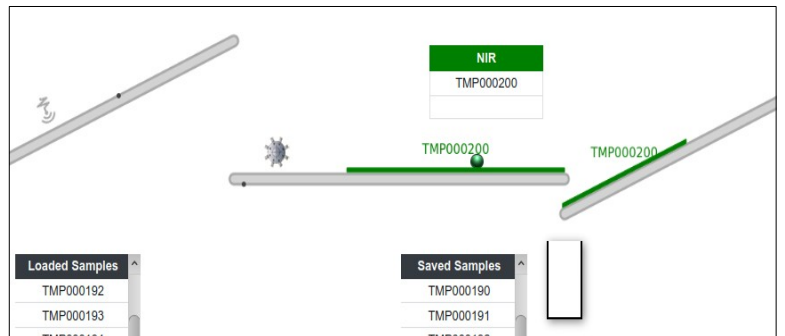
Disposal

Samples with a *Dump* instruction are moved by the conveyor to a skip bin. Samples with a *Save* disposal instruction are transferred into a sample collection bin.

Notices

The Notices section on the Operator Screen displays important notices for the operator that are generated by the system.

Severe notices are displayed in red and warnings in yellow.



Level	Time	Details
Severe	Sep 03, 14:02	Collection Bin Full or Absent
Normal	Sep 03, 14:05	a test message from the lab

Sample Info

The Sample Info screen provides basic information on each sample that has passed through the system, namely:

- Sample ID
- Sample start time
- Disposal action

Serial No.

Sample ID

Sample Date/Time

Action

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Motor Console

The Motor Console screen shows the current state of the motors associated with the various conveyors and levellers. When the system is in Standby mode, the motors can be manually controlled.

Delivery Conveyor - STOPPED

Analysis Conveyor - RUNNING SLOW

Disposal Conveyor - RUNNING SLOW

Skip Conveyor - STOPPED

Levelers - STOPPED

Stop All Motors