

VITRONICS-SOLTEC

BARCODE OPTION SPECIFICATION
XPM3

October 10 2006

Purpose

The barcode reader allows you to either select your products via a hand scanner, or completely automated via a fixed barcode system.

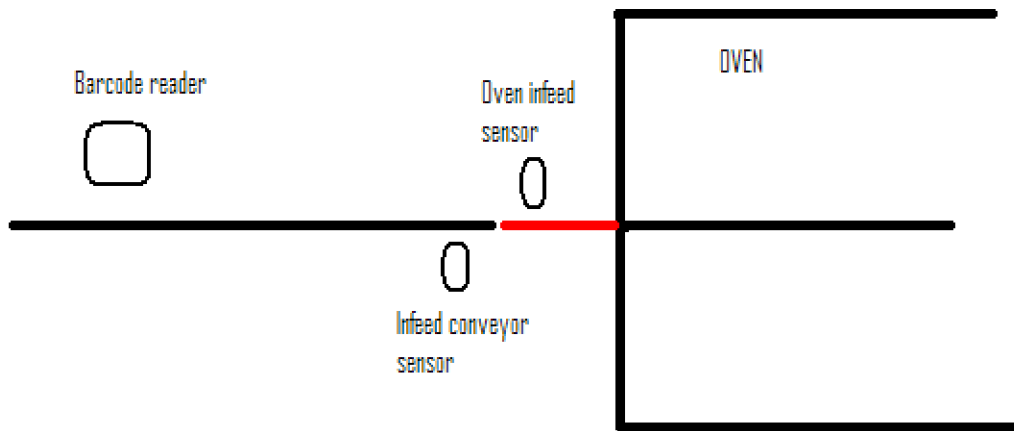
Requirements

- Barcode reader
- SMEMA
- Tracking system
- Extra comm. Port on machine PC

Principle of operation

The barcode mode has to be switched on in the status menu to activate it. When active, it is not possible to select a recipe manually.

When the machine is not processing a board at its entrance, SMEMA will give a not ready signal to the upstream conveyor.



As soon as a board arrives on the infeed conveyor, the oven gets notified through SMEMA by the 'board available' signal.

The oven control software will start a time-out timer. Within this time, the following has to happen:

- barcode reader reads the barcode
- barcode reader sends barcode string to PC program
- PC program searches for the recipe that links to the barcode.
- PC program sends the recipe information to the oven control software

If the above actions are not taken within the time-out time, the oven control software will generate a 'Barcode error' and will keep the SMEMA signal 'not ready'.

Possible reasons for the error:

- There was no barcode on the board. This means that the board stops in front of the machine without the PC sending new recipe information.
- The barcode had no recipe linked to it. The PC generates a 'invalid barcode' message and does not send new recipe information.
- The barcode reader gives a 'no read' error. The PC generates a 'no read' error and does not send new recipe information.

The not receiving of new recipe information triggers the oven control software to generate the 'Barcode error' alarm.

If the oven control software gets new recipe information in time, the following will happen:

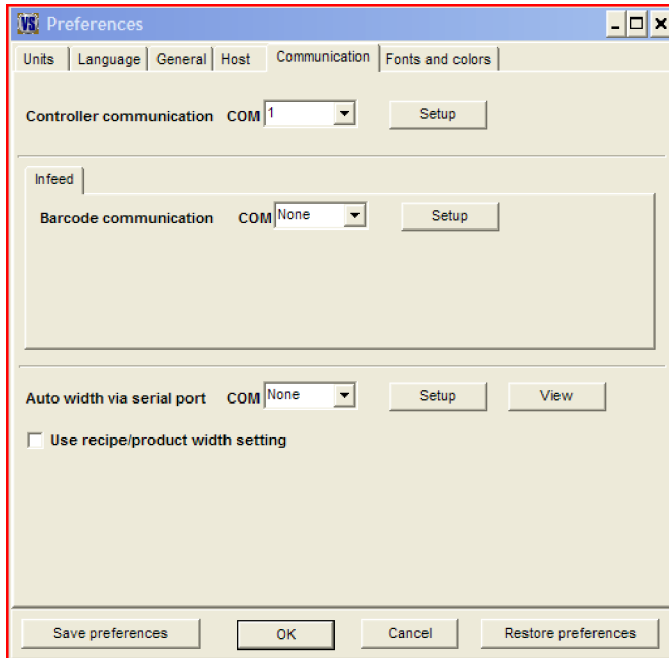
- if the recipe is the same as the current recipe, the board will be allowed in, i.e. SMEMA will change to 'ready'
- if the recipe is different from the current recipe, SMEMA will stay 'not ready'. The machine will be emptied. After the machine is empty, the new recipe will be installed. As soon as the machine will go ready, SMEMA will change to 'ready'.

As soon as the board enters the machine, SMEMA will change to 'not ready' again and the cycle restarts.

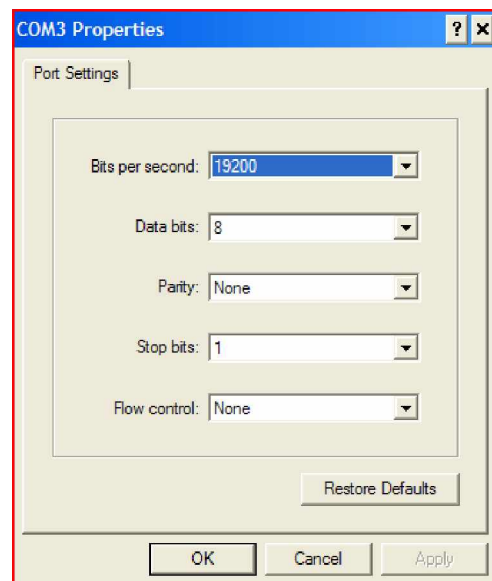
Setting up the barcode system (option has to be enabled)

Setup the RS232 communication

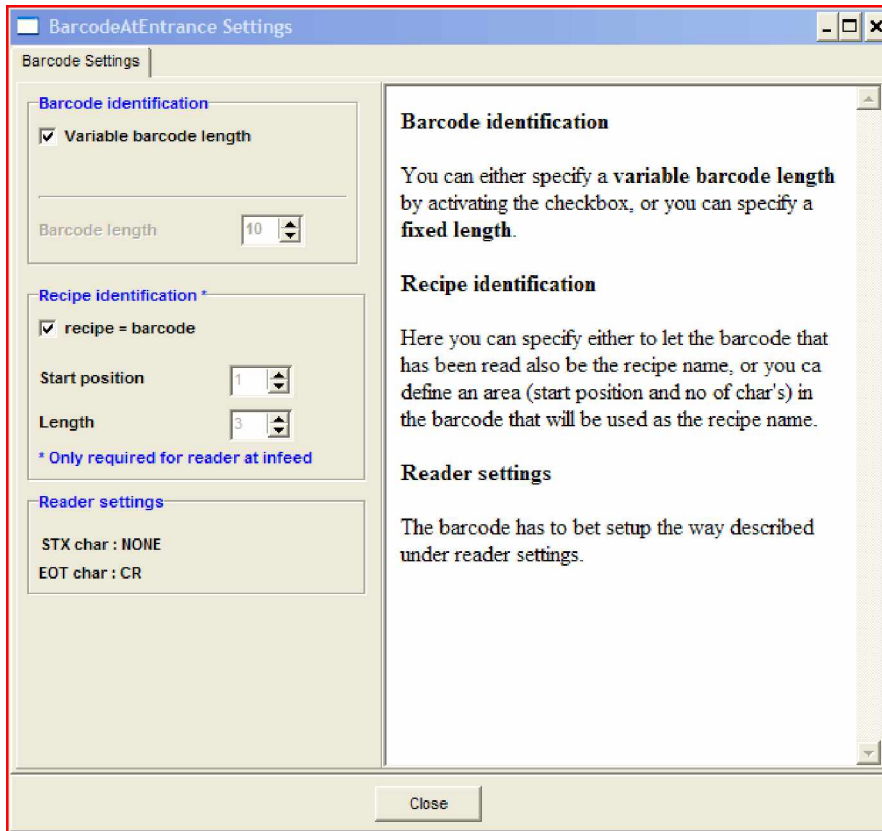
In the oven program, choose the <setup><preferences> menu and go to the communication tab.



Here, the RS232 port can be set. When a valid port number has been chosen, a dialog will pop up where the port settings can be set. The settings should be the same as the settings the barcode has been setup with.



By pressing the setup button, the following dialog pops up:



The following can be set:

- Barcode length. This can be a fixed length or a variable length.
- Recipe identification. This can either be the complete barcode (recipe=barcode) or the startposition in the barcode and the length can be set to indicate what part of the barcode will be used for recipe identification.

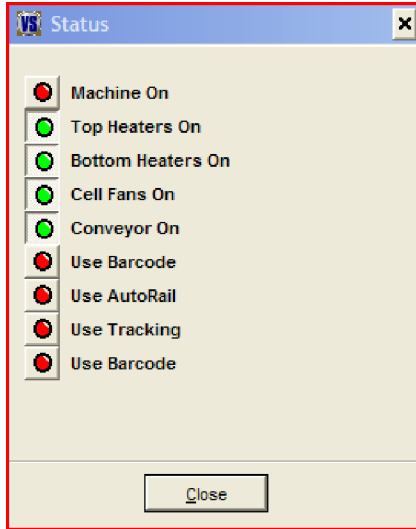
If the barcode option is enabled, on the main screen a barcode icon will be present.



The LED on the icon indicates the status of the barcode system.

Activating the barcode system

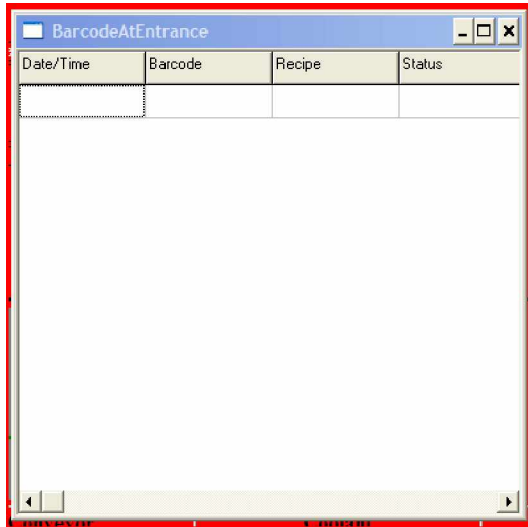
To activate the barcode system, choose the <Status><Machine status> menu.



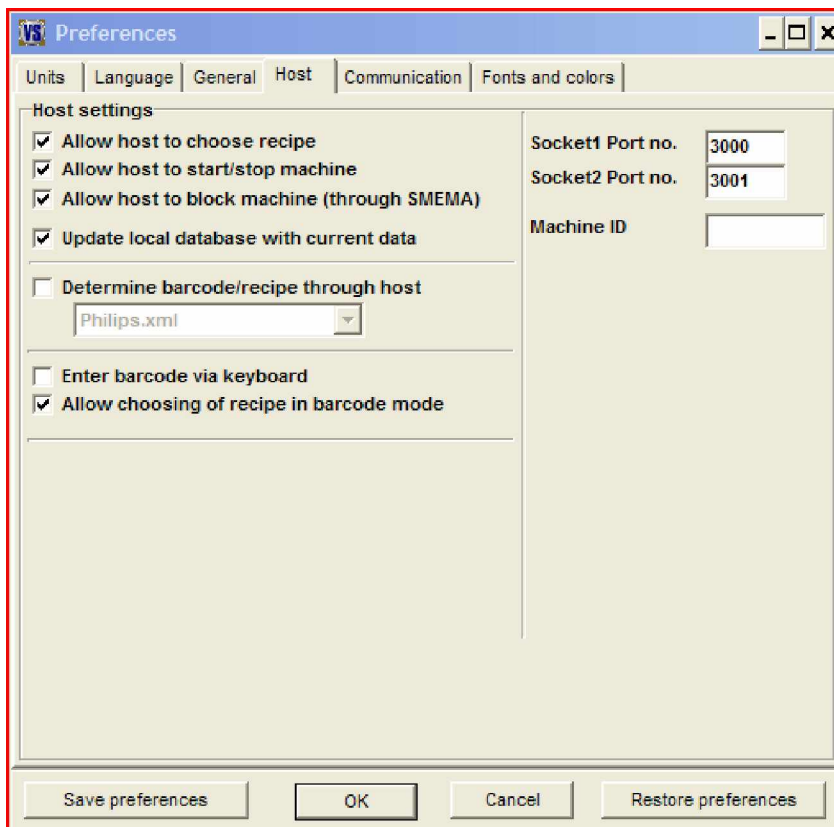
If the barcode system has been switched on, the barcode icon LED will turn green.

Debugging

By clicking the icon, a dialog pops up where the barcodes that have been read with a time stamp, linked recipe and status will show.

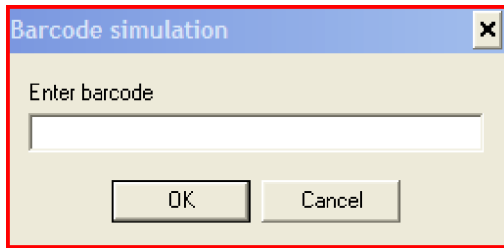


It is also possible to simulate barcodes by entering them manually with the keyboard. To activate choose <setup><preferences> and go to the host tab.



Check the 'Enter barcode via keyboard' checkbox to activate.

In this mode, when you click the barcode icon a input field will pop up where a barcode can be typed in.

A screenshot of a small, rectangular dialog box titled "Barcode simulation" in a blue header bar. The main area is light beige and contains the text "Enter barcode" above a white text input field. At the bottom, there are two buttons: "OK" and "Cancel". The entire dialog box is outlined with a red border.

The typed in barcode will be processed the same way as an actual barcode would be.