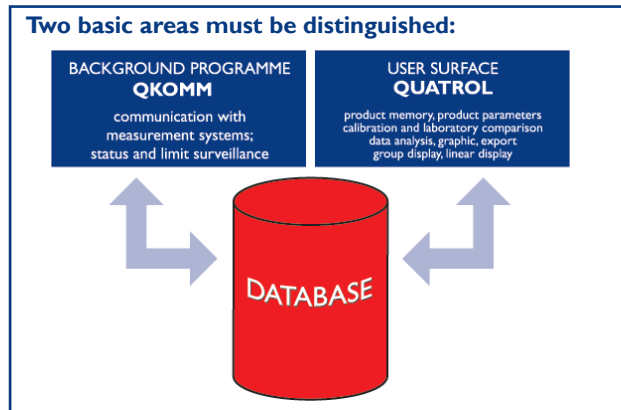


MULTILINE SYSTEM QUATROL.3000

Two basic areas must be distinguished:



Every bottling plant consists of a variety of machines to produce and bottle fruit juices and lemonades. They are subject to various margins and interferences depending on the type and technical data. Looking at the complete production progress it must be mentioned that the quality and amount of drinks to be bottled depend on the technical condition of the bottling plant and the reliability of the staff.

Raw materials, energy and workforce are very valuable nowadays. The productivity depends therefore on economic use of raw materials and energy, and on the reliability of staff. The QUATROL concept has been developed to facilitate the accessibility to computer assisted production control for small and medium-size bottling plants. A complete, simple concept, clearly structured and easy to understand, it stands out from the rest of the products on the market. With the help of modular function groups QUATROL can be adapted to any plant and processing situation. This means that global bottlers can also get multilinear registration and control.

The complete volume of the QUATROL user programme contains several programmes depending on the size of the plant. Some of these programmes are running in the background and can't be influenced by the user. All ACM programmes have been developed in the multitasking system, that is why important programme functions (communication with the interface connections, calculations, controls, alarms, data back-ups, system surveillance) work unseen. The user is provided with masks; the selection of the page is made via function key or mouse in the well-known Windows technology.

User surface QUATROL

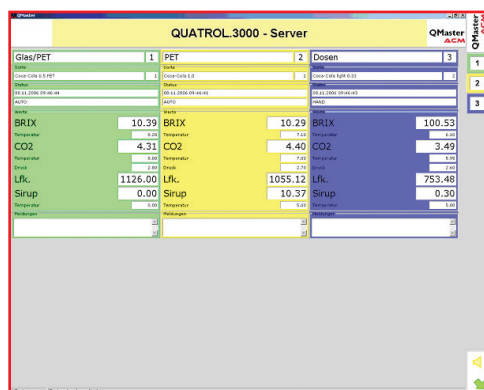
The current production of all filling lines is managed and shown. On various screens the process is visualized and can be influenced by the user. Important areas are protected by passwords.

Accessory programmes and data base

All adjustments of equipment are done in Windows (work station), data back-up in Explorer. The settings available in QUATROL for the plant data serve exclusively for the measurement equipment and the background process. The data base running in the background provides all production data for graphic and statistical analysis. A large product memory contains all parameters for product specific surveillance of the filling process. All important areas are protected by passwords.

At production end all measuring data is stored in a file oriented database.

Examples for the representation of measuring data and plant-conditions



GROUP DISPLAY In the production programme all conditions of the whole filling plant are shown in a graphic and numeric comparison of set point and real value and are furthermore checked against the product specific limits stored in the product memory. It contains the measuring data and codes of all production lines. Changes or influences of the production process are not possible in the group display.

Each line is presented in the form of a module (box). The colour of the module surface changes according to the current status of the line concerned. Colours signal as following:

GREY The line is in the END-status, no production running, the data shown are not valid;

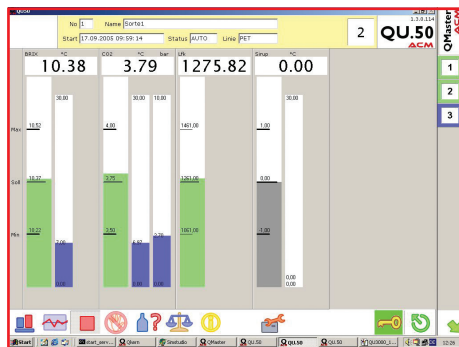
ACM

GmbH

A-1140 Vienna, Goldschlagstrasse 172

Tel.: +43-1-7865866, Fax: +43-1-7865866-20

Internet: www.acm.co.at, E-mail: office@acm.co.at



BLUE The line has been started and is in the MANUAL-status, the data shown are valid, but not checked against the limit data;

GREEN The line is in AUTO-status, the data are valid and within the limits;

RED The line is in AUTO-status, the data are valid and one or more measuring values are in state of alarm. In the lower part of the module the value in question is shown.

LINE DISPLAY From the group displays you get into the various line displays by putting in the line number or by mouse click. In a bar chart all the sizes in connection are shown. Below the bars all data are shown in numbers and in the correct unit.

The following colours are used to differentiate the various conditions of each reading:

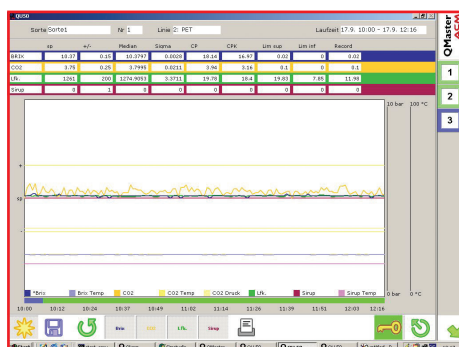
GREY Data are shown, condition and control not activated (service or defective sensor);

BLUE Data plus nominal values, the line is active and in MANUAL-status (no limit control, no statistical evaluation);

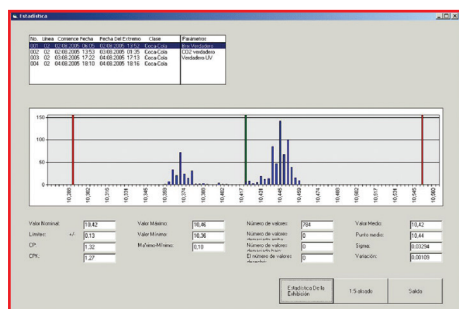
GREEN Data plus nominal values are shown, the line is active and in AUTO-status (limit control, condition ok, no alarm situation, statistical evaluation in progress);

RED Data plus nominal values are shown, the line is active and in AUTO-status (limit control, statistical evaluation), alarm is activated.

Graphic and statistical evaluation of the running production



All connected readings can be displayed graphically (linear graphic) and statistically during the production. This is extremely important to be able to react swiftly to any changes in the process. All readings and production data are continually stored on the hard disk, so this function has access to a data base and reads all necessary data. Protocol data and graphics are printed via standard PC printer.



The statistics module calculates and displays all today usual statistical values of a production.