More flexibility than ever
thanks to new 'My MultiMa' module

Ridder HortiMaX MultiMa

Solutions for
Controlled Environment Agriculture

EN 201806

Helping you grow
your way

My MultiMa

For the HortiMaX MultiMa, we designed a revolutionary software module that allows you to create your own custom controls for the HortiMaX MultiMa computer, without any help from us or your Ridder dealer. This means you can get even more out of your HortiMaX MultiMa and achieve even better growing results.

Together with your crop consultant, you may come up with new ideas for maximizing crop production. In some cases, this requires adjustments to the control process that cannot be made with the available functionality. These control adjustments often require the input of additional system data that is corrected for multiple factors. To implement such changes, the new 'My MultiMa' module includes the following features:
◆ My Influences - for defining your own custom influences.
◆ My Variables - for creating custom readouts for various applications.

Example 1
Suppose you want to create a readout that shows you if sufficient irrigation is being applied when it is sunny. This is possible by comparing the amount of radiation received to the amount of water applied, or more specifically, by dividing the cumulative irrigation volume by the radiation sum.

Example 2
Using the simple formula Temperature 1 - Temperature 2 , you can create a readout of the difference between the measured and calculated ventilation temperatures in a greenhouse block (or compartment). The daily or weekly averages of these values can then be shown in a table. However, you can also use a combination of statistical variables and a formula and let the system calculate the resulting value in real time. This readout can then be shown in a graph, allowing you to see at a glance whether the desired climate control parameters were achieved or not in certain periods.

Example 3
Do you want the fan speed to be adjusted automatically when the humidity level at the bottom of your greenhouse deviates more than 5% from the humidity level at the top of your greenhouse? This is possible by creating a status value that indicates whether this condition is met or not.

My Influences

Settings such as the ventilation setpoint are influenced by factors such as the radiation intensity (sunlight) and humidity level. An influence adjusts a setpoint based on a measured value. This allows the pre-programmed setting to be adjusted automatically based on changes in the ambient conditions. The HortiMaX MultiMa's 'standard' influences can be used to fine-tune climate or irrigation control to your specific situation.

The HortiMaX MultiMa allows you to define your own custom influences that adjust graphical settings as you desire. With the My Influences feature, you are free to select which value should influence which setting. These custom influences can be based on standard readouts or even on pre-defined custom variables from the My Variables feature.

Example 4
As a precaution, you want the heating setpoint to be increased slightly if the weather conditions become 'adverse'. These weather conditions are defined as follows: 25°F with a strong wind blowing from the east.

My Variables

The HortiMaX MultiMa software registers an enormous amount of data. The system displays readouts of all measured and calculated values. However, there may be situations where the available readouts or calculations do not meet your needs. This may be the case, for example, if you want to examine the correlations between readouts, or combine or edit certain values. It is also possible that your crop consultant asks you for information that is normally not available in the system, but can be determined from other data.

The 'My Variables' feature allows you to create your own custom readouts that can be displayed in Synopta. There are various options for defining these custom variables:
1. A variable based on a formula.
2. Statistical variables. These include moving averages, minimum and maximum values, etc.
3. A combination of a formula and statistical variable.

These new variables are easy to create. After defining custom variables, you can use them in graphs, tables and influences - just like other variables.

Set your own strategy

Ridder setpoint graphs give you the ability to swiftly enter settings whose values should vary throughout the day. Instead of having to set a separate value for each period, you can draw a setpoint line in a time-based graph. Setpoint graphs can cover as many periods as you want. In the HortiMaX MultiMa, many settings have been modified so they can be set in setpoint graphs. This provides you with even more setpoints that can be programmed to vary throughout the day. Your custom influences (My Influences) can be applied to any of these setpoints based on the control strategy you've chosen.