



Your personal dashboard for effective
greenhouse monitoring and control

Ridder Synopta



Solutions for
Controlled Environment Agriculture

GB 201810

ridder.com

Helping you grow
your way



All technology displayed on one convenient dashboard

Why should you choose a Ridder solution with a Synopta user interface? We offer a comprehensive range of automation solutions that are designed to work together seamlessly. Synopta allows you to manage all your Ridder equipment, such as Ridder fertigation and water disinfection units. This will give you complete control over your greenhouse, even when you're gone.

Adaptive software

Whether your company is large or small, or uses little or a lot of technology, Synopta can support every aspect of your operational processes and be customized to your exact requirements. And if your needs change, Synopta is easy to upgrade or modify. Various controllers can be connected to the software, including:

- ◆ Process computers, such as the MultiMa and CX500, which allow you to control your climate, irrigation and energy equipment from one spot;
- ◆ Climate computers, such as the Clima 300;
- ◆ Fertigation computers, such as the Aqua CX300;
- ◆ Fertigation units, such as our entire FertiMiX range;
- ◆ Monitoring equipment, such as ProDrain or CropView;
- ◆ Water disinfection systems, such as the VitaLite CXL.

Retrieving and displaying data from non-Ridder equipment

Synopta is also capable of retrieving data from other equipment and conveniently displaying it in tables or graphs. If combined with the HortimaX MultiMa, Synopta even lets you operate such equipment. For example, if you're using a non-Ridder fertigation controller, you can import and analyse the data in Synopta or combine it with other available data and save it. To enable this communication with other equipment, we designed the versatile Script Controller utility for Synopta.

Synopta has been the leading operating and information software in the horticulture sector for decades now. This advanced and user-friendly software system allows you to operate a full range of Ridder process computers or controllers - both locally and remotely. Despite having an abundance of features, Synopta remains effortless to use and navigate. Synopta includes free software updates and is fully customized to your needs, so you only pay for the functionality you want.

Unrivalled features and capabilities

Does your operation consist of multiple locations, do you use multiple process computers, or do you grow a number of crops in many greenhouse blocks (or compartments)? It makes no difference to Synopta, which features a wide range of capabilities for monitoring and analysing every aspect of your greenhouse processes.

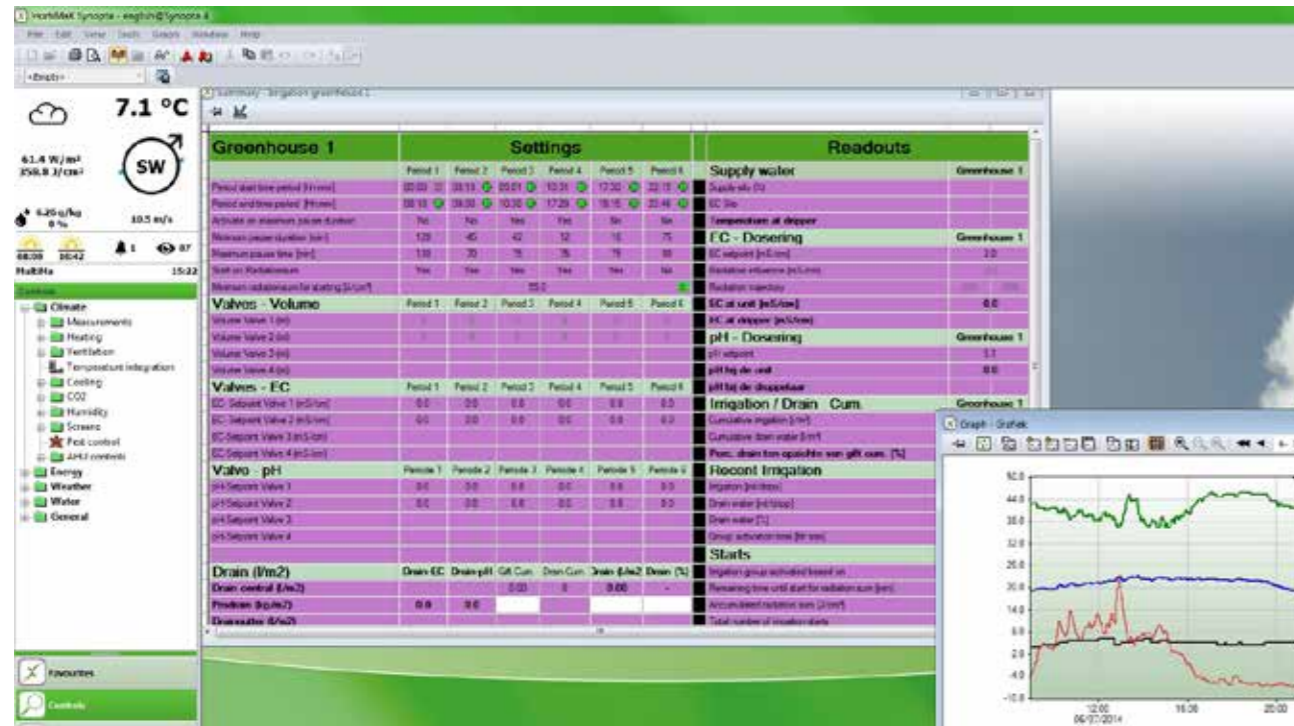
Up to 10 years of historical data storage

In addition to storing up to a decade of historical data, Synopta automatically logs all user actions in the 'Event Viewer'. This lists who adjusted which settings and when. The Event Viewer also keeps track of all notifications and alarm messages generated by your process computer. These features provide you with a complete overview of your greenhouse operations and allow you to look up any information quickly and easily.

Data in table format

In Synopta, all historical data can be displayed in user-defined tables. For example, detail tables can show the trend of one or more measurements throughout the day. Day tables show you the average, minimum and maximum values by day of the week. In short, tables allow you to retrieve and display all measurement values from the controller. Synopta can calculate various statistics from the data shown, such as the maximum, minimum and average values, or the duration of an activity (for instance, how long a pump was running at high speed). This data can then be exported to Excel manually or automatically.





Graphs with automatic statistics

Readouts and user-defined variables can be displayed in graphs. Graphs show you the changes in ambient conditions at a glance. This allows you to monitor your greenhouse environment in real time, so you can respond quickly to developments affecting your crop.

Synopta graphs offer the following features:

- ◆ Can display both standard data and user-defined variables
- ◆ Show the minimum, maximum and average values by default
- ◆ Allow you to easily zoom in on specific time periods
- ◆ Allow you to compare data from previous periods
- ◆ Show/hide desired variables with one click
- ◆ Let you save your personal preferences
- ◆ Let you customize colour and line styles
- ◆ In a nutshell: You can customize every detail of your graphs

Program setpoints to vary throughout the day

No two greenhouses are the same. That's why Synopta allows you to tailor the control and monitoring of your greenhouse to fit your unique needs. One of Synopta's standout features is setpoint graphs, which enable you to quickly enter settings whose values should vary throughout the day. A multitude of setpoints and influences can be programmed in this way.

In addition to selecting which data, variables or settings are relevant to your operation, you can set the desired start values, end values and influences for each period. You can set both the duration of the periods and define as many periods as you want. Another major feature of Synopta is the Summary views, which show related data (such as heating and ventilation setpoints) in one convenient window. This means that even with a large number of settings, your system will remain easy to manage.



User management

Synopta includes extensive capabilities for defining users and user permissions. This is often a key requirement in large operations. In Synopta, all users can specify their own preference settings, such as language selection or screen layout (i.e. a particular arrangement of windows). Users are assigned to user groups, which in turn are granted access rights to specific software components, such as selected controls, standard summaries and categories. This is another feature that will allow you to retain maximum control over your business.

Communication with external parties

Synopta puts a wealth of useful and valuable information at your fingertips. In commercial horticulture, there is a growing need to exchange data with others. That's why Synopta includes a web service feature, which lets you swap data with external parties efficiently and securely. This feature makes copying data manually a thing of the past.

Synopta also gives you the ability to publish summaries of data as a webpage. In this way, external parties (such as crop consultants) can access relevant data automatically, without further effort on your part.

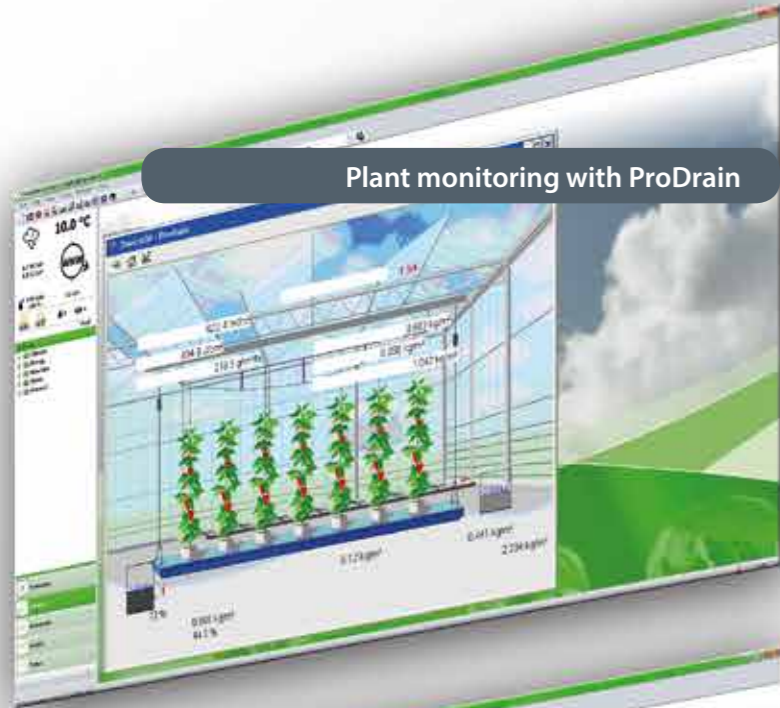
Other features

As if the above functionality wasn't impressive enough, Synopta has even more to offer you. The following are just some of the other standard features in Synopta:

- ◆ Displays compact graphical valve overviews
- ◆ Lets you display up-to-date webpages from external sources (e.g. weather data)
- ◆ Shows a comprehensive list of alarm events with their current statuses
- ◆ Lets you quickly disable functions that you do not use



Your personal dashboard for effective greenhouse monitoring and control



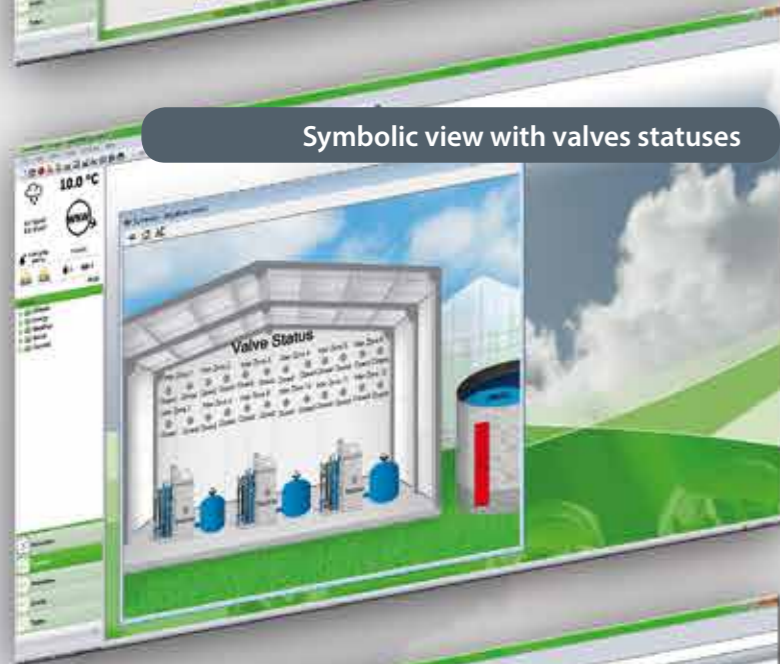
Plant monitoring with ProDrain



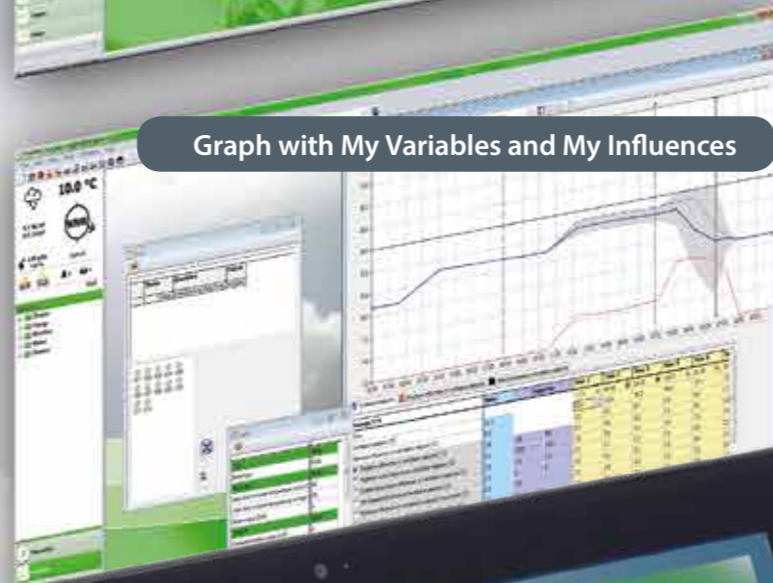
Custom view with key climate indicators



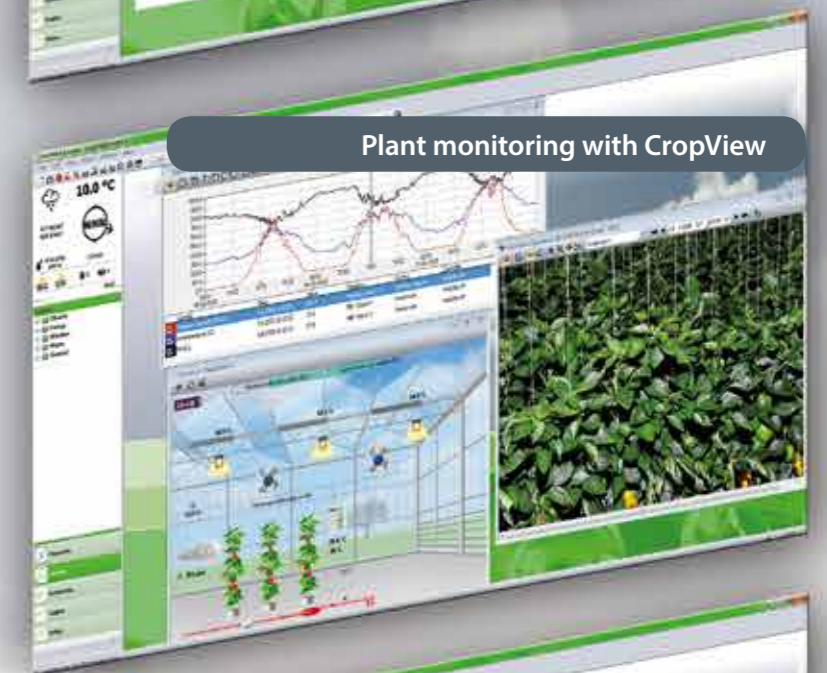
Symbolic ground plan of greenhouse



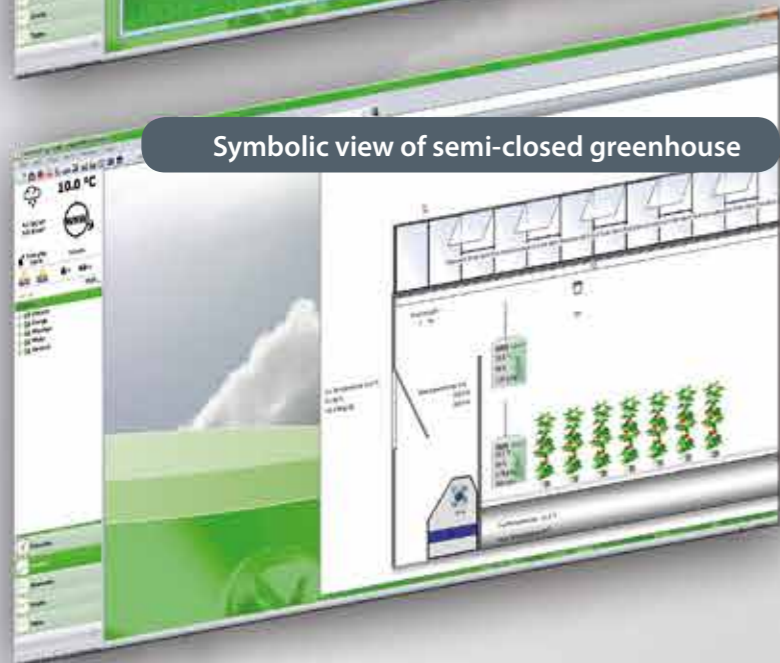
Symbolic view with valves statuses



Graph with My Variables and My Influences



Plant monitoring with CropView



Symbolic view of semi-closed greenhouse



Your own custom weather forecast

The easiest-to-use operating software for greenhouse controllers

In designing Synopta, we focussed particularly on usability and ease of use. That's why the software works so intuitively. Synopta also offers a wide range of features to manage and customize the software to your specific needs:

- ◆ Features Ridder Explorer for super-fast navigation
- ◆ Automatically displays the latest weather information
- ◆ Lets you add favourites and shortcuts for instant access to frequently-used functions
- ◆ Lets you create your own custom desktops
- ◆ Allows you to define your own custom variables and statistics
- ◆ Lets you create custom views of settings and readouts
- ◆ Enables you to set up symbolic views and setpoint graphs
- ◆ Allows you to display the software in your native language

Use of desktops

Each view, window, historical graph or table in Synopta is shown in its own window. Multiple windows can be displayed at the same time. You can also save an arrangement of windows as a custom desktop and open it later with one click of the mouse. This makes it easy to create overall views of, for example, climate, energy or irrigation control.

Custom views

Synopta allows you to create your own custom views, so you can display vital settings and readouts together in one window and open it later with a simple mouse click.

MultiMonitor

Managing the ever-increasing flow of process information is one of the main challenges facing modern greenhouse growers today. To help you handle all this data, Synopta offers a host of useful features and the ability to display data from a wide range of equipment. The amount of information necessary to make the right decisions is often so extensive that it won't all fit on one screen. Ridder was the first horticultural supplier to solve this problem by designing the MultiMonitor, which turns multiple monitors into one large overall screen. From this 'Synopta dashboard', you'll be able to see more and do more, in less time!

Your own dashboard with symbolic views

Every greenhouse is unique. Synopta enables you to create a schematic representation of your greenhouse facility or certain parts of it. You can include all data essential to your facility's operations in that representation, allowing you to monitor your greenhouse environment and equipment at a glance. By combining symbolic views with custom desktops or the MultiMonitor, you can display any aspect of your greenhouse control process with a click of the mouse.

Easy to order and install

Synopta is easy to upgrade as your needs change. After you've discussed your functional needs with your Ridder dealer, the dealer will order the desired software from the Ridder support site. Our support site is where your dealer will obtain the required user licence and installation information. It then takes just a few mouse clicks to install the software on your computer, so you can get started in no time.



Unique licensing model with perpetual free updates

Synopta features a unique licensing model. Instead of paying for modules, you simply select the user profile that best fits your needs. Each user profile (or package) gives you access to virtually all functionality, but the use of software features is bound by certain limits. The greater your requirements, the larger the package you choose. This allows you to gradually expand the software as the size of your operation increases and your need for more functionality grows.

Synopta has four user profiles to choose from:

1. Synopta-Go!: only available in combination with the CX500
2. Synopta Small Business Edition: plug & play, for a configured version of Synopta on the IPC
3. Synopta Pro: very extensive Synopta version, can be installed on dedicated server
4. Synopta Pro Ultimate: the most comprehensive Synopta version with an 'unlimited key' for unrestricted use of all features

Synopta operates based on licence keys. Depending on your profile, you can scale up Synopta with new or additional functionality (for instance, with extra users or more graphs). If you reach the limit of your specific package, it is easy to upgrade to a more extensive user profile. Your dealer will simply request a new licence key from the Ridder support

portal and send it to you. After purchase, Ridder offers new Synopta versions free of charge, so your dealer can keep your software up to date at no extra cost.

The benefits of the new licensing model:

- ◆ Ability to buy a basic Synopta package that will fit any budget
- ◆ Easy and cost-effective to expand with extra options and functionality
- ◆ Software updates available free of charge
- ◆ Try functionality before you buy
- ◆ Ability to support multiple controllers by gradual expansion
- ◆ Unlimited use of Synopta in company network (limitation on number of simultaneous users)
- ◆ Only pay for the functionality you need

Overview of the user profiles

	Synopta Go!	Synopta Pro	Synopta Pro Ultimate
Hardware	IPC	See demands	See demands
Application	CX500	See demands	See demands
Operating system	Windows 7 embedded	See demands	See demands
Configuration	Ridder	Dealer	Dealer
Users	1-5	1-99	1-99
Tables	1-20	1-99	99
Graphs	10-20	10-99	99
Symbolic views	1-6	1-99	99
User-defined views	1-2	1-99	99
Multi windows	1	1-20	20
Historical data (weeks)	4-52	52-500	500
Historical events (weeks)	52	52-500	500
Historical alarms (weeks)	52	52-500	500
Web pages	3-10	3-99	99
Save desktops	Option	Standard	Standard
Task scheduler - export data	Option	Standard	Standard
User Rights	x	Option	Option
CropView	x	Option	Option
Web service	x	Option	Option
Script Controller	x	Option	Option
Connections	1	1-10	1-10

