MEASUREMENT AND CONTROL

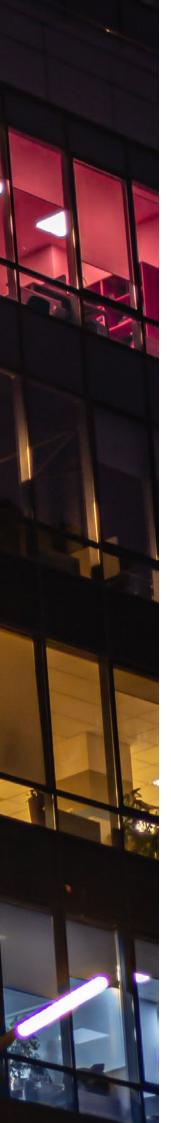
# PowerStudio SCADA

Energy management, control and automation software for installations

The Future is Efficiency circutor.com









# PowerStudio SCADA

# Energy control for limitless efficiency

In a world that is increasingly conscious of the importance of energy efficiency and sustainability, the installation of an Energy Management System (EMS) has become a fundamental tool for optimizing energy consumption in any electrical installation. This system not only lets you monitor and manage all energy consumption centrally, it also makes it possible to automate existing control systems, such as lighting, air conditioning and other automatic systems that may be present in your installation.

Implementing this type of solution allows you to identify consumption patterns, detect possible inefficiencies in real time, and take corrective measures in a timely manner. By optimizing energy consumption and promoting sustainability, this system is a strategic ally to reduce operating costs and improve the efficiency of any electrical installation, enhancing the corporate image of organizations and reducing the impact of the carbon footprint.

Similarly, automating your control systems not only guarantees greater comfort, it also contributes to more efficient and responsible energy use, generating significant long-term savings.

Boost efficiency, reduce costs and enhance your corporate image with an Energy Management System!

# PowerStudio SCADA Take your energy efficiency to the next level

#### Discover the ultimate solution for efficient energy management: PowerStudio

With its user-friendly interface, you can get full control of your electrical installation. Monitor any Modbus device on the market in real time, make graphs and tables of average variables, monitor your own KPIs, track any incident that may occur, and receive simulated invoices based on all the consumption in your installation. You can even compare several installations on the same screen.

#### ENERGY MANAGEMENT

- ℅ Active energy
- ℅ Reactive energy
- ♦ Hot/cold water
- 🔕 Gas
- 伯 Fuel

# INSTALLATION CONTROL



- \* HVAC
- ✤ Temperature-controlled
   ◇ Power system
- \* Free cooling



### MAINTENANCE

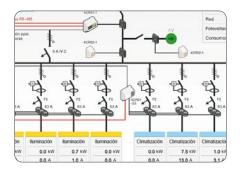
A Alarms and incidents

 Ø Performance indicators (KPI)
 Image: Scada screens
 Invoice simulations
 ● Production costs

# What can you achieve with PowerStudio SCADA?

A

	<b>\$9.</b>			
	Ó			
A		264 kW		
		0	CONSUMOS SEGÚN ZONAS	
35 kW	ing bedrahut	Mag av Industrial	Comercial	153 kW 58.1 %
13.4 %	11.5%	23%	Ingeniería	100 kW 37.8 %
12 kW 4.7 %	20kW 7.6%	12 kw	Montaje	11 kW 4.1 %



# Real-time monitoring

With PowerStudio SCADA, you will have instant access to detailed information on your energy consumption. Observe patterns, identify inefficiencies and take prompt corrective measures to reduce unnecessary costs. With **PowerStudio SCADA**, you will have instant access to detailed information on your energy consumption. Observe patterns, identify inefficiencies and take prompt corrective measures to reduce unnecessary costs.

0

# Intuitive displays

View the information in the most intuitive way possible. PowerStudio lets you create your own customized dashboards or screens to display readily understandable information at a glance.

Circuto	ſ	Rec	arga de \	/ehículos	Eléctrio	05	Sistem	a DLM
DLM VEHICULO ELÉCTR	100	A1	A2	A3	м	B3	<b>8</b> 4	85
Fase L1 3	09.7 A	32	32	32	32	32	32	6
	49.7 A	0	0	0	0	0	0	0
Fase L3 3	23.7 A	0	0	0	0	0	7.05	0
	6	0	1.5	0	0	8.6	2.7	3.3
Piazas Disponibles Piazas Cargando Alarmas en Plazas	4 0	B7	B8	B9	B10	@ C1	C2	C3
		6	6			32	32	32
Fese L1	32 ^	0	0			0	0	0
Fase L2	32 A	0	0	0	0	0	0	0
Fase L3	32 A	7.2	3.3	0	0	4.3	7.7	1.9

# Efficient control using SCADA screens

Create your own SCADA screens to view any information from your installation in real time, and integrate manual controls to operate any device you have installed.

# Efficient automation

Automate your existing control systems, such as lighting and HVAC, to achieve optimum efficiency. **PowerStudio SCADA** gives you the ability to program and automatically adjust the systems based on schedules, occupancy and other variables, avoiding energy waste and improving the comfort of your facilities. **You can integrate any device on the market that uses the Modbus protocol.** 

n de la factura	Simulación de FA			A		
ra 15/11/2019 eración de 01/11/2019 al 01/12/2019 Total factura <b>9.828.63</b> ε	En.000 0 12 1 2 5 4 5 2016		5 6 7 Fecha			
ción						
	CÁLCULO					
energia variable						
-	KWb x	0.099342	€/kWh		1.368.24	٤
lo 1 13.773		0.099342			1.368.24	
13.773	KWb x		€/kWh			€

# Intelligent data analysis

Get accurate data and conduct detailed analyses to make strategic decisions. With PowerStudio SCADA, you can easily make personalized reports and energy invoicing simulations. It also offers advanced analysis tools that you can use to identify opportunities for improvement and optimization.

Fechayhora	Nombra	Anotacide		
27.09/26 14	P. BON FIN CARGA TOBIA & PLONA1 MARCHESINA			
10 00 00 21	CLINIA DIA LABORAL			
27 07 00 00	CLIER Sala PJF2 hotato laboral Adhio			
27 07 00 00	CLIMA Sala INF1 Notato laboral Activo			
27 67 60 00	CLMH-Sala ICM2 horario laboral Adhro			
27 07:00:00	CLINA Sala (C6H horato laboral Adhe-			
27 07 00 06	CLINA Sala ICE, horario laboral Activo			
27 07:00 00	CLIMA Sala Admin 2 horario laboral Adivo			
27 07 00 00	CLIMA Sala Admin 1 horario laboral Admo			
27 07 00 01	CLASA Sala ICO horano taboral Adivo			
27 08:00 01	CLARK Sala CAFE Norano laboral Adhio			
27 09:00:00	CLMH-Sala SECRE horane laboral Activo			
27 09:00 00	CLARA Sala DIR03 horano laboral Activo			
27 08:00:00	CLMA Sala DIR02 horario laboral Adivo			
27 09:00:00	CLARA Sala DR01 horario laboral Adivo			
27 08:00 01	CLARA Sala RECEP horaris laboral Adivo			
27 12 30 00	CLASA Sala SECRE horano Stedio laboral Adivo			
27 12 30 00	CLABA Sala RECEP horane Medio laboral Adivo			
27 12 30 00	CLMA.Sata INF2 horano Medio laboral Adhie			
27 12 30 00	CL/MA Sata INF1 horario Medio laboral Adivo			
27 12:30:00	CL/MA Sala IO62 horario Medio laboral Adivo			
27 12:30 00	CLIBR Sala CM1 horario Medio laboral Adivo			
27 12:30 00	CLINA Sala ICL horane-Medio laboral Adivo			
27 12:30:00	CLINA Sala ICO horario Medio taborat Adhio			
27 12 30 00	CLASA Sala DR03 horano Medie laboral Adivo			
27 12 30 00	CLIMA Sala DiRO2 horano Medie laboral Adivo			
27 12:30:00	CLARA Sala CIRO1 Norano Medio laboral Activo			
27 12 30 00	CLINK-Sala CAFE horario Medio laboral Adivo			
27 12:30:00	CL/8H-Sala Admin 2 horario Medio laboral Activo			
27 12:30 00	CLNIA Sala Admin 1 horario Medio laboral Adivo			
7 15 00 00	CL Bild Rudy SECRET Average Marke Jahoral Six Arthur			

# Incident management

Receive real-time notifications when an incident occurs in your installation so you can act quickly to avoid undesired service stops or excess costs.

		73.6 kW — 21 %
49.6 kW	Ingenieria	5.1 KW 7 %
20.5 kW 41 %	Almacén	0.9 kW 18 %
2.0 kW 4 %	Producción	0.0 KW 0 %
0.0 kW 0 %	Oficinas	0.1 KW 2 %
	Oficinas I+D	4.1 KW 80 %
0.9 KW	Montaje	18.8 kW

# Track your KPIs

With PowerStudio, you can create your own process indicators by relating your energy consumption to any other variable, and thus find out your consumption trends depending on the type of installation, HVAC use or production process.



# Scale your SCADA application as needed

### ✤ EDGE COMPUTING

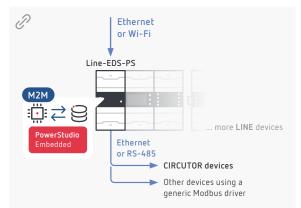
The **PowerStudio SCADA** software is incredibly versatile and can be installed on Edge Computing devices. You can find it embedded in our Line-EDS devices, giving you full control of any of your devices with Modbus communications. With this solution, you can monitor and control all your devices in real time without having to rely on a higher-level SCADA.

### **⊖** ON-PREMISE

For optimal control of your installation, we offer an installable version of **PowerStudio SCADA**. This On-Premise solution lets you have an overview of all the devices in your installation, allowing you to monitor, compare and group variables, such as energy consumption, so you can have an integrated view of your installation's performance. You can also detect incidents in real time and take immediate action. Find out how **PowerStudio SCADA** enhances your energy management at every level.

# ය CLOUD

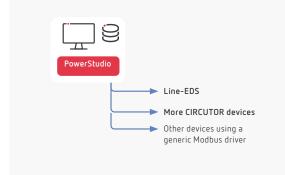
If you need to monitor multiple installations or you want decentralized control without having to install software in every location, you can use cloud systems. This provides instant access to data from any location. You can also do advanced analyses that will maximize efficiency and reduce costs.



#### ✤ EDGE COMPUTING

The **line-EDS** implements the PowerStudio software at the edge or border of the network, near the devices and sensors that are monitored and controlled. This option offers key features, including:

- High local processing speed: it uses local computing devices to process data quickly and independently, relieving load on the main network.
- Minimum dependence on Internet connectivity: Since it is located near the controlled devices, the SCADA Edge continues to operate seamlessly, even if the Ethernet connection is interrupted.
- Maximum security: By storing the data locally, the risks associated with exchanging information through the network are reduced, providing comprehensive control over the security of the systems.

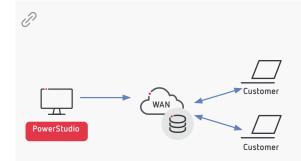


## ON-PREMISE

The **PowerStudio SCADA** software is installed on local servers or equipment, offering an On-Premise option with key features that include:

- > Total control: By having the SCADA software in your company's facilities, you get complete control over the hardware, configuration and data generated. You will have full autonomy to manage and optimize your systems.
- Customization and adaptation: The on-premise option lets you customize and adapt the SCADA software based on your company's specific requirements. Enjoy the flexibility and scalability you need to adapt the solution as your business grows.

Make the most of your resources and achieve optimal performance with our tailor-made solution.



## ය CLOUD

**PowerStudio SCADA** has an XML API that makes it possible to integrate it into cloud platforms. This solution involves accessing and using the SCADA software through a cloud-based platform provided by an external vendor. Its main characteristics include:

- Fast and easy installation: No hardware infrastructure or local installation required. The software is available online, making for a quick and hassle-free implementation.
- Global access: The data stored in the cloud are available at any time from any location, facilitating remote access and collaboration between geographically distributed teams.
- Advanced analyses: Cloud platforms offer advanced analysis tools and services that leverage SCADA data to generate knowledge, identify patterns and optimize your operations efficiently.



# Scale your SCADA application as needed



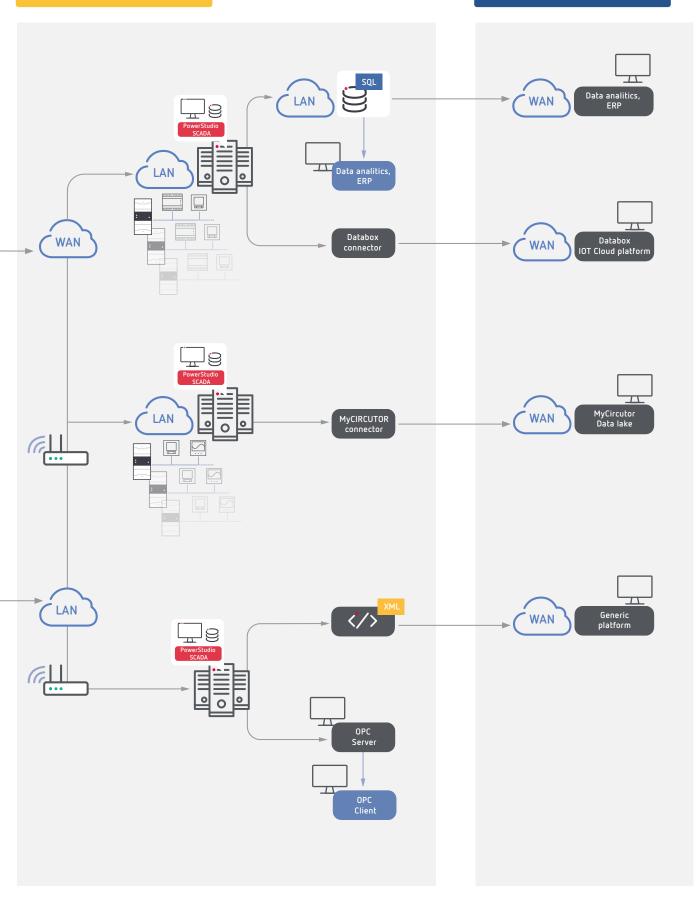
✤ EDGE COMPUTING

# Devices MODBUS / **Devices CIRCUTOR** Line-EDS-PSS ... more LINE devices .... ..... Devices MODBUS / Devices CIRCUTOR Line-EDS-PSS ... more LINE devices ッ Devices MODBUS / **Devices CIRCUTOR** Line-EDS-PSS more LINE devices . . . LAN リ $\overline{T}$

8 | Circutor. The Future is Efficiency

### ON-PREMISE

ය CLOUD





# **Discover the new PowerStudio SCADA** More powerful, more scalable

**PowerStudio SCADA** is a constantly evolving software package designed to adapt to new market needs as they arise. Its new infrastructure allows each function or service to be run independently, resulting in a higher execution speed. Thanks to this optimization, PowerStudio SCADA is able to create powerful and efficient applications with fast execution times.

The new PowerStudio infrastructure has been designed with efficiency and performance in mind. This new benefit

is advantageous for those who want to develop large-scale applications that require a quick and efficient response.

In addition to its execution speed, PowerStudio offers a wide range of advanced features and functionalities. With PowerStudio, you can access real-time monitoring and analysis tools so you can make informed decisions based on accurate data. Its intuitive and user-friendly interface makes it easy to fully leverage the energy management capabilities it offers.





# Optimized to make everything easier



# PowerStudio SCADA EDITOR

Create, modify and publish your personalized application from anywhere in the world. The Editor lets you create your own application: add and configure all your connected devices, create your own SCADA screens, create invoice reports and simulations by sending them to the server where you have your own application installed.

Thanks to this offline tool, you can modify and extend the application from any location to export it directly to the server, avoiding travel and saving time.



# PowerStudio SCADA CLIENT

PowerStudio CLIENT is the real-time display tool for programming, SCADA screens, reports and alarms created through PowerStudio EDITOR and PowerStudio WAVE. The end customer will have access in order to monitor and manage the application created, but will not be able to modify the program, thus avoiding potential manipulation errors.



# PowerStudio SCADA ENGINE

PowerStudio SCADA uses several automatic Windows services for the independent performance of the different programmed tasks. With this new structure we ensure the independence of processes to provide greater speed and agility in the representation, performance and data processing.





# PowerStudio SCADA WAVE

Discover the new programming tool. It works from any web environment and will let you program PowerStudio in a simpler way that is more visual and intuitive. With PowerStudio WAVE, you'll be able to execute your projects faster.

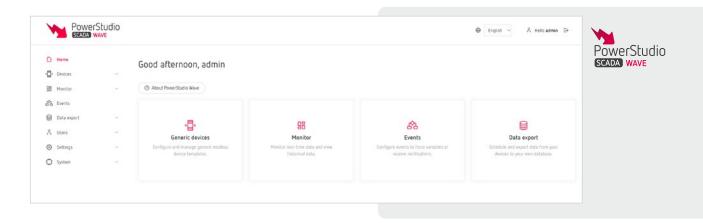


# A new user experience

# Discover the new WAVE (Web App for Visualization and Edition) tool from PowerStudio

This innovative user interface offers new features that let you interact with PowerStudio more easily, quickly and conveniently. With WAVE, you will enjoy an improved user experience with intuitive navigation and a visually appealing interface that makes it easier to set up and edit your application. Now, you can make the most of PowerStudio from any web browser. **WAVE** offers a variety of key features that will let you maximize its utility:

- > Creation of generic categorized drivers.
- > Design of customized dashboards.
- > Setting events/alarms using a visual and intuitive interface.
- > Real-time export of recorded variables to SQL servers.



#### Add and manage any Modbus device

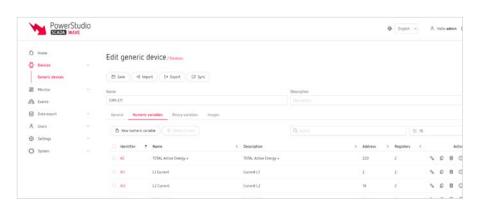
**PowerStudio WAVE** lets you create and modify any device or sensor with Modbus communications so you can monitor, manage and control it remotely. Once the device's memory map is added, the software will show you a new driver, categorized and ready to be added as needed, without having to generate it again.

In addition, PowerStudio WAVE gives you the option to add Circutor product drivers and select the variables that are most relevant to your application. You can discard any variables that are not relevant and view only the parameters you choose, offering you a personalized experience that is focused on your needs.



### Always up to date

With PowerStudio, we commit to offering you the best device management experience. Which is why whenever we launch a new product, we will create an updatable driver so you can manage and add your new devices right away. You will no longer have to wait for new PowerStudio updates, since you will be able to take advantage of all the features without delay.

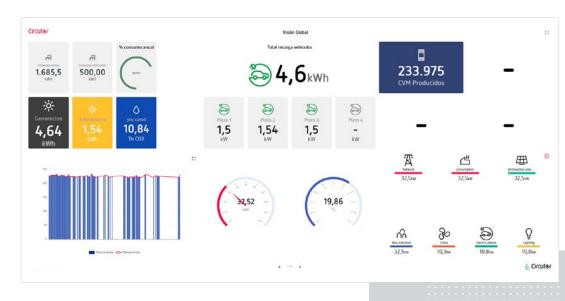


## Decide how to view your data

**PowerStudio SCADA WAVE** offers an innovative tool for creating dashboards. This new functionality enhances the user experience by providing an intuitive, real-time display of the data and status of your installation.

Discover a wide range of dynamic graphs and customisable widgets that allow you to monitor your processes and get

instant feedback from your installation. Customise and configure dashboards to meet your specific needs using the Dashboard Monitor tool. Choose which data to display, submit them and which widgets or graphics to include in each panel. This flexibility ensures that the control panels fit your workflow and priorities depending on the type of installation or management you want to perform.



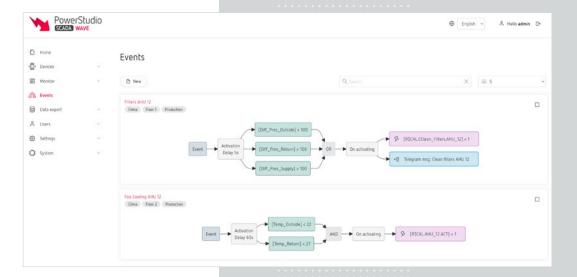
### Keep all your alarms under control

**PowerStudio SCADA** has an advanced graphical tool that lets you create and manage alarms and events efficiently. With our new graphic tool, you can create events with any logical condition quickly and intuitively, without the need for complex programming know-how.

Our visual interface, based on flow diagrams, will let you easily define the parameters and conditions for triggering alarms in your SCADA systems.

Use our practical search engine to review all the alarms associated with a device and show the trip conditions of each.

Boost your alarm management capabilities with PowerStudio and optimize your SCADA systems simply and efficiently.



## Your SQL Database is always updated

**PowerStudio SCADA** offers a powerful tool that can be used to enter data directly into an SQL database. This functionality provides an efficient and reliable way of storing and managing your data in a centralized database.

Connect your database with other platforms and systems to get a complete overview of your operations and make strategic decisions based on accurate and updated information.

erStudio I <mark>WAVE</mark>		🕀 English ~ Å Helio admi
	Database / Data export	
Υ.		
4	🖻 Save 🗇 Reset 🕞 Start export 🛛 🔇 Export stopped	
	DATABASE CONNECTION	
~	Database type	User
	SQLServer	58
	Server	Password
	SQLServer	
	2	Database / Data export  Save D Reset D Start export Stopped  A Database type  SQL Server V

### Fully secure communications

Our priority is to guarantee the integrity and privacy of your information. PowerStudio implements secure communications between its various modules and services, encrypted using the HTTPS protocol, to ensure our customers' peace of mind.

We make sure your data are protected against potential threats and risks. In addition, by complying with the most demanding data protection standards, you can rest easy knowing that you are implementing the best security practices.

## Always informed with Telegram

**PowerStudio SCADA** gives you the option to schedule the sending of relevant information on your installation, such as the status of sensors or a summary of consumption, by setting up scheduled events. You can use any logical or calendar condition to receive notifications on your mobile device and stay up to date at all times on the status of your installation.

When an alarm condition occurs, the system will send the information in real time so you can take prompt action to resolve the problem. Integration with the Telegram platform lets you stay up to date at all times and avoid indirect costs resulting from faults in the management and control systems of your installation.

### Stay on top of any changes...

-Shudio

erStudio

PowerStudio

rStudio

Micro-services

rStudic

Our commitment to excellence drives us to constant development, continuously improving existing functionalities and adding new features and characteristics. This way, we make sure we stay at the forefront of technology so we can offer you an even more complete and personalized experience

We are committed to making constant refinements to our product and to developing new features to help you manage your installations more easily and efficiently.

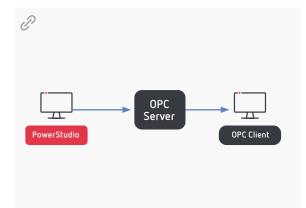
# PowerStudio Universe

Maximize your company's efficiency by connecting the full potential of PowerStudio with any analysis or management tool. In the world of industrial automation, communication between different systems is essential to ensure efficiency and optimum performance. PowerStudio offers connectivity options, such as OPC UA, SQL and cloud platforms, to ensure effective communications between industrial automation systems.

These options let you integrate and share data quickly and securely. **OPC UA** provides a widely adopted communication standard, while the **integration with SQL** provides efficient access to stored data. In addition, the connection **with cloud platforms such as Databox and MyCircutor** expands the data storage and analysis capabilities.

PowerStudio stands out for its flexibility and potential to boost efficiency and optimize performance in industrial automation.

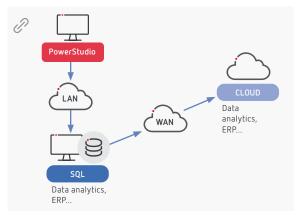
16 Circutor. The Future is Efficiency



# Share your data in real time using OPC UA

The OPC UA (OLE for Process Control-Unified Architecture) standard is widely used in industry for communication between automation systems. PowerStudio is compatible with OPC UA by way of the OPC UA Server tool, which means it can turn into an OPC UA server of any PowerStudio variable.

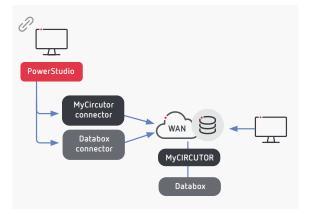
PowerStudio offers full compatibility with OPC UA through its OPC UA Server tool. This allows PowerStudio to become an OPC UA server for any variable or data captured by PowerStudio.



# Send your records to any SQL system

**PowerStudio** offers an essential functionality by allowing any variable to be integrated into an SQL (Structured Query Language) database. This feature not only allows data to be stored and accessed efficiently, it also makes it possible to use a wide range of information analysis tools.

With PowerStudio, you can make the most of your data stored in an SQL database, optimize your processes and improve your company's operational efficiency.



# Send your data to Cloud platforms

**PowerStudio SCAD**A offers the ability to take advantage of cloud platforms, allowing you to easily upload and share data collected on various cloud platforms. This provides scalable storage, remote access and advanced data analysis tools.

It uses the **PS-DataBox** module to connect PowerStudio and the DataBox cloud platform, enabling the periodic upload of data from devices or calculated variables, improving their analysis and online availability in a simple way.

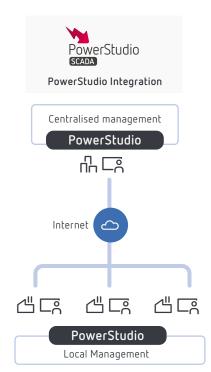
Discover the potential of PowerStudio's versatile communications and take your company's automation to another level, optimising your processes, improving efficiency and making informed decisions based on accurate and updated data.

# Choose the version that's right for your project

The **PowerStudio** software combines all its features in the different versions available so you can leverage all its power in any type of installation. Select the most suitable version based on the number of devices to communicate with, and put its advantages to work right away.

All the features that make **PowerStudio** unique:

- > Set up all your devices remotely
- > Monitor your variables in real time.
- > Create your own control panels in Dashboards.
- > Display your recorded data in charts and tables.
- > Create customized SCADA screens.
- > Generate customized invoice reports and simulations.
- > Create customized alarms and events.
- > Easily check the settings for every event or alarm.
- > Define calculated variables, KPIs or EnPIs based on your needs.
- Create generic Modbus drivers for devices from any manufacturer. (Modbus RTU or Modbus TCP).
- > Add any media converter (TCP, UDP or Modbus TCP).
- > Compare historical data easily
- Create automated systems easily: apply rates, schedules or logical conditions.
- > Receive notifications by email or Telegram.
- > Monitor data as an OPC client for enhanced interoperability.



# And as always:

### View PowerStudio from any website

**PowerStudio SCADA** offers you an integrated web server to connect via https, providing access to real-time and historical information through a conventional web browser from your PC. The web server makes it possible to have unlimited simultaneous connections and to control access to information based on the user hierarchy established. You can customize your access to SCADA screens, reports, calculations and device settings based on your needs and permissions.

# Add all your facilities in a single application

**PowerStudio SCADA** lets you integrate multiple applications into a single screen, giving you a unified and organized view of an unlimited number of applications. You can group data to view a summary of the information on each, and access each one directly to see its specific details. The result is a centralized and efficient experience that gives you a complete overview of your applications, and fast and convenient access to detailed information. An application example would be public buildings or companies with multiple locations.

# Easily export the information recorded

With the **export to CSV feature in PowerStudio**, you can export manually configured data tables and reports from your client. This lets you share and analyze data in other analysis tools so you can generate customized reports and extract data for subsequent processing. The CSV format provides a versatile and compatible way to transfer and use the data collected in PowerStudio, offering more flexibility when handling and analyzing information.

# Integrate it into your system using XML

The PowerStudio SCADA XML server lets you access real-time parameters and historical data so you can get detailed information and make precise checks to analyze and control your facilities. It is an efficient and flexible tool that allows you to customize and integrate PowerStudio data into your own management and control platform.



# Versions

To efficiently manage any type of project, PowerStudio offers three versions to suit your business, depending on your needs. They all have the same integrated functionalities. Choose the one that's right for you depending on the devices you need to manage: BASIC version up to 25 devices, PRO up to 50 devices, and ULTIMATE with no limit on connected devices, whether made by Circutor or any brand with Modbus communications. Also, don't worry about future expansions, since you can always upgrade your PowerStudio version guickly and easily, hassle-free.

If you want to work with your own SCADA OPC, install the OPC UA Server version and you will turn your PowerStudio into an OPC data server in real time, so you can control and manage your energy needs with your own SCADA system.



All versions are now PowerStudio SCADA:



Vial Sant Jordi, s/n 08232 Viladecavalls Barcelona (España) t. +34. 93 745 29 00 info@circutor.com