

ELIPSE POWER PROVIDES CERVAM WITH MORE THOROUGH ANALYSIS ON ITS RECLOSERS OPERATIONS

Elipse Software's platform allows the Cooperative for Mogi Valley's Energization and Development (CERVAM) to diagnose malfunctions more quickly, ensuring a more reliable, high-quality distribution system of its 17 reclosers' remote operation

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Needs

Established in 1964, the [Cooperative for Mogi Valley's Energization and Development \(CERVAM\)](#)'s first goal was to provide electricity to the state of São Paulo's rural area. Back then, the distribution companies' lack of interest in supplying energy to the people in the countryside was the main reason CERVAM was created. Nowadays, in addition to São Paulo's rural zone, the cooperative also serves customers from different areas, being regarded as one of the more reliable distribution company in the state.

In 2021, CERVAM decided to modernize its operating center, and now uses [Elipse Power](#), the [Elipse Software](#) platform for smart management of electric systems. The solution allows CERVAM to be able to monitor and control its reclosers remotely.

[Energia Automação \(EA\)](#) is the company responsible for implementing a more modern version of Elipse Power, having developed specific features for the platform so that they could meet all the needs from the cooperative's operating center. It also added two reclosers to the application, reaching a total of 17 supervised reclosers in the system.

"Our main challenge was replacing a fully operational system with new software. This is because, in addition to ensuring compatibility with equipment already commissioned, a system replacement generates great expectations from the part of its users. Therefore, we've paid special care to maintain the database's accessibility," says EA's Business Director, Bruno Musarra.

Besides providing better responses to high performance standards, Elipse Power allows using an electric model via a graphic interface. It also ensures

high levels of reliability and availability to the system. According to Vitor Hugo Delsin, electric engineer and CERVAM's manager, the system was updated so it can, among other things, provide more agility and speed to problem solving, thus optimizing energy distribution.

“Implementing the new software has resulted in fewer resources being wasted and in processes increasing their efficiency, which has helped us fix any malfunctions more quickly,” he said.

Solution

Through Elipse Power's screens, CERVAM operators are able to monitor all information regarding status, voltage, current, and other signals that are relevant to its 17 reclosers. On the initial screen, the software displays data about: each recloser's status (open/closed), the provider that's feeding it (number and model), voltage and current measurements represented by chart bars, active alarms, and other information displayed next to the icons representing the breakers.

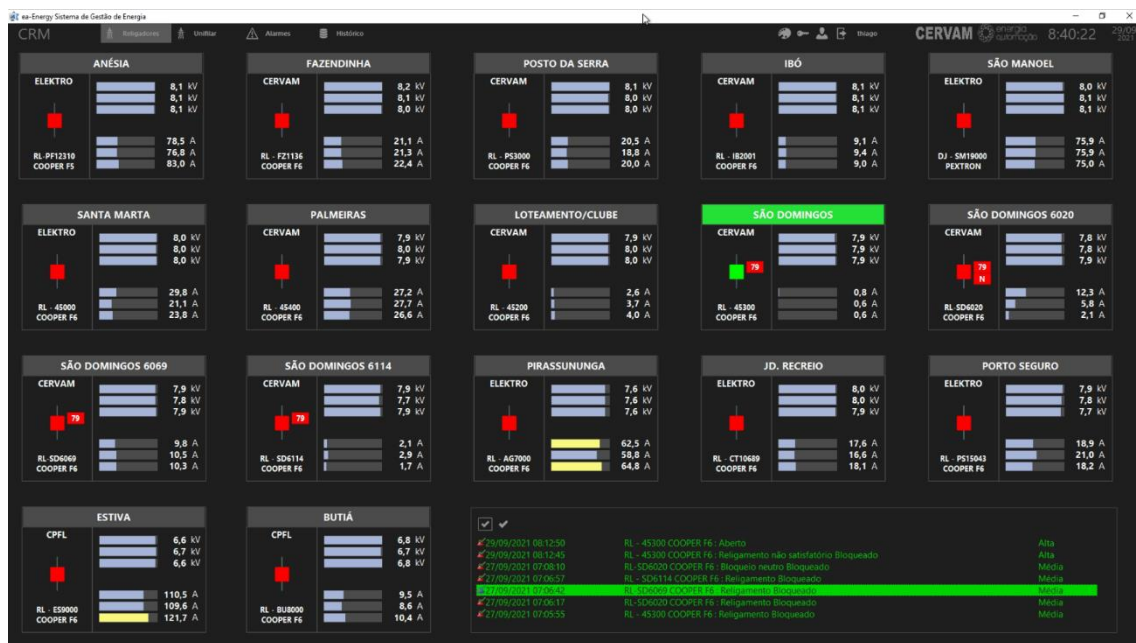


Figure 1. Application's initial screen

Elipse Power individually monitors all 17 reclosers, overviewing its signals, analog measurements, historic, alarms, and statuses. It also allows users to

operate the application remotely via logins and passwords. This was developed in order to keep unauthorized operators from issuing any commands. To reinforce security, the platform will interlock commands according to what has been configured for each device while displaying the information about its pre-conditions for operation.

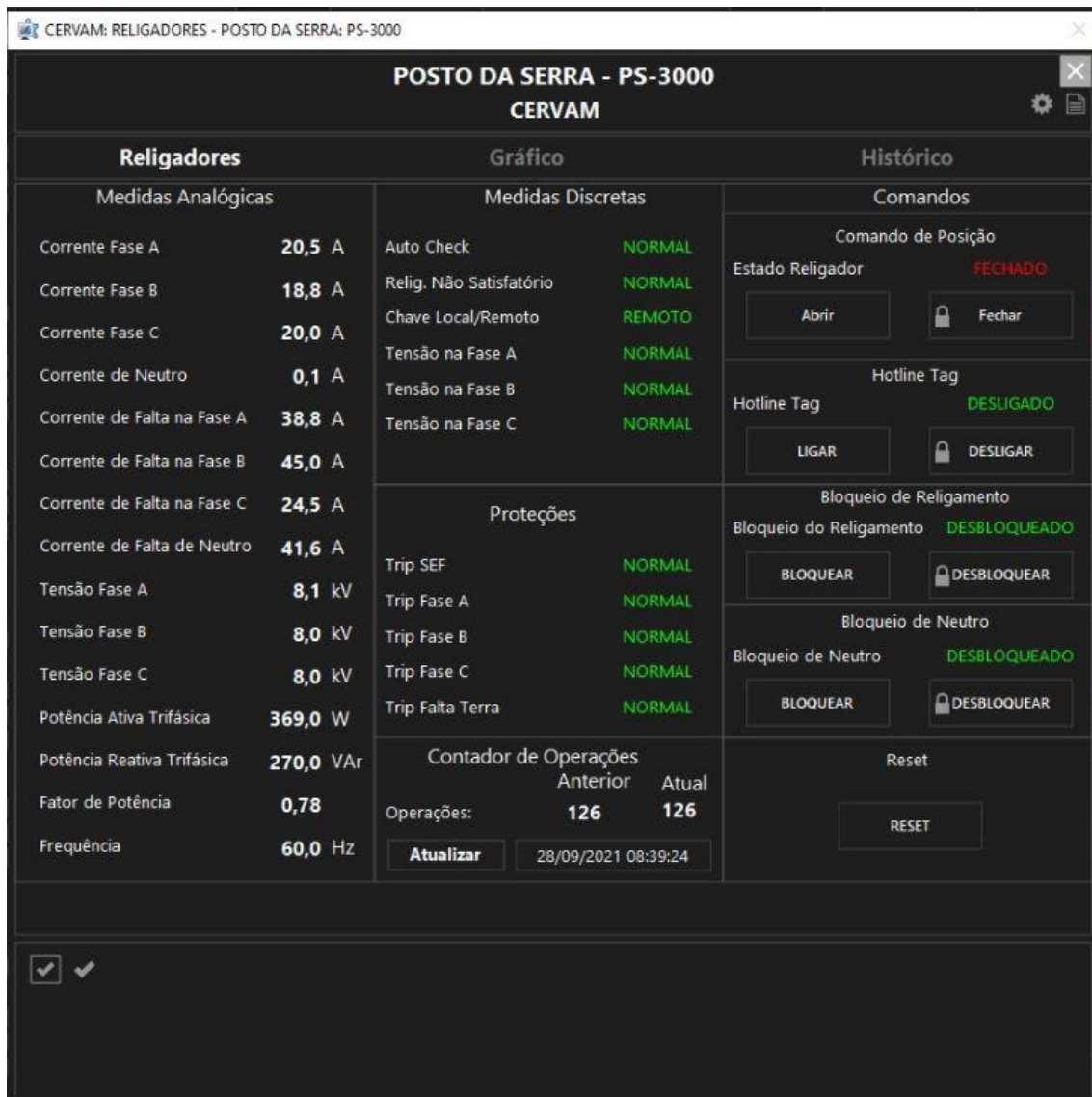


Figure 2. Recloser's control screen

In addition to displaying the analog measures for voltage, current, power, and frequency related to all 17 reclosers, Elipse Power also allows analyzing them graphically. This resource was developed so that operators can visualize the behavior of any of these variables, filtered for any time period. It's also possible

to use the data in the chart to create a report that can be printed/saved in PDF format.



Figure 3. Graphic sample of a recloser's current, power, and frequency

Another resource available with Elipse Power is the possibility of issuing an alarms/events history for each recloser within a certain time interval for a detailed analysis of the all the occurrences during said period. This information can also be visualized via reports, which can be printed/saved in Excel or PDF format. Additionally, it allows creating operation notes in order to share data or to block notes that will invalidate any remote control to be executed by the software.

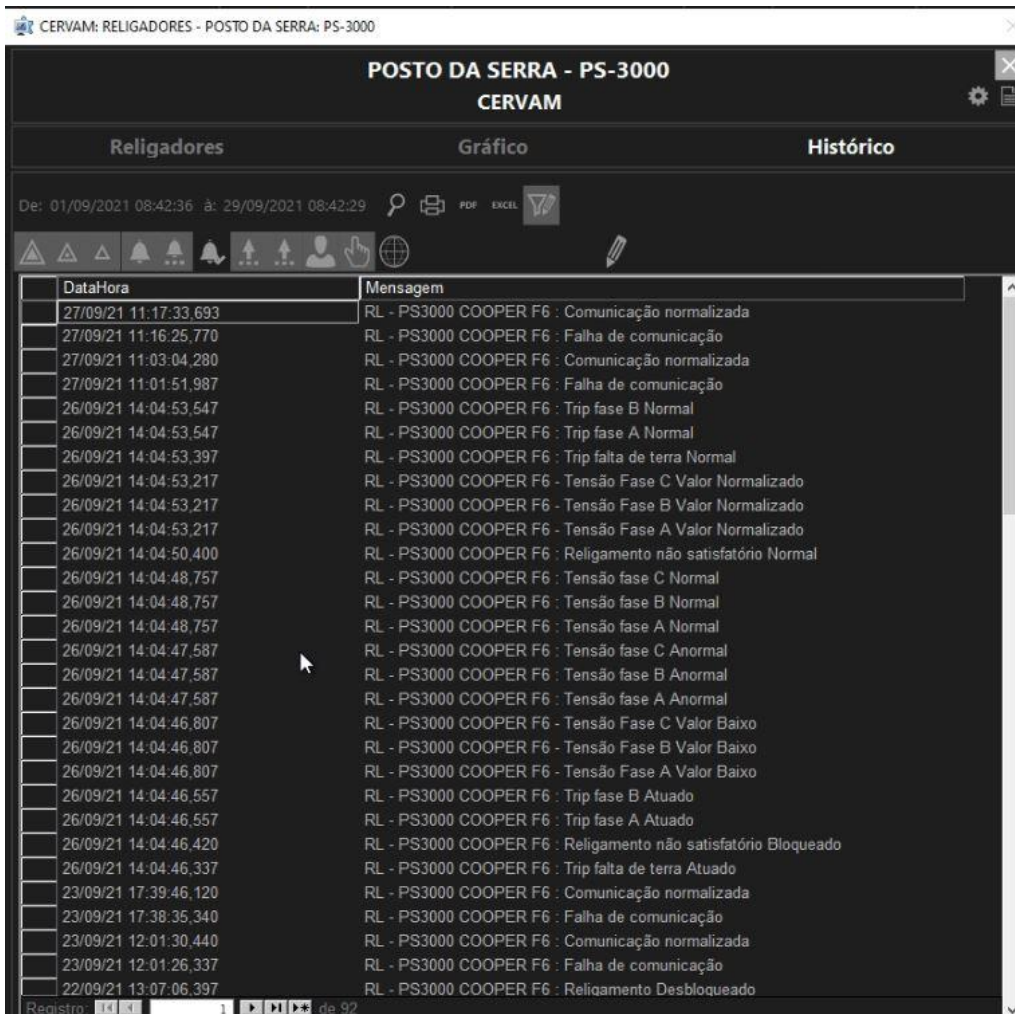


Figure 4. Alarms/events history

Elipse Power also shows the distribution network's single-line diagram, where you can see how the reclosers are displayed in the cooperative's electric system, and check which energy providers are connected to each feeder. Finally, it allows monitoring all alarms and historic events, which can be filtered by severity and by messages, among other variables. This data too can be found in reports that can be printed/saved as PDF or Excel formats.



Figure 5. Single-line diagram of CERVAM's distribution network

Benefits

- Higher quality for energy distribution.
- Less resource waste.
- More efficient reclosers.
- Malfunctions are detected and fixed faster.
- Costs with equipment are reduced due to great compatibility with Elipse Power.
- System is easy to operate.

Datasheet

Client: Cooperative for Mogi Valley's Energization and Development (CERVAM)

Solution provider: Energia Automação (EA)

Eclipse product used: Elipse Power

Platform: Windows 10

Number of copies: 1 Elipse Power HMI

Number of I/O points: 1,500

I/O drivers: 20 DNP 3.0 Master drivers