

How IP Clocks Can Save Money and Energy Over the Life of Your Clock System

A White Paper by The Sapling Company



Companies and organizations incur many different types of expenses in the course of operating a facility. One such expense that all organizations try to manage is the cost of energy. Lately, the rising cost of energy has spurred many corporations and facilities to search for ways to cut this expense in an effort to use those savings in other areas. Reducing energy expenses can provide additional funding for new equipment or supplies, enhancing benefits for employees or fund ways to better serve customers. Along with providing the most accurate time to all clocks within a system, Sapling's digital IP Clock System offers an energy-saving solution for a wide array of industries.

Sapling's digital IP Clock System is powered by P.o.E., Power over Ethernet, which provides power and data through a CAT5 or CAT6 cable. This cable eliminates the need for any additional outlets. Each clock within an IP system has the ability to receive its time from a network connected (S)NTP time server, which will provide the same exact time to all clocks connected to the network. Inside each digital clock is a built-in web interface that allows a facility manager to monitor the clocks from any computer with a network connection. A few of the features that can be adjusted through the web interface include displaying 12 or 24 hour mode, domestic and international Daylight Saving Time, date formatting as well as the brightness settings for each particular clock in the system.

Focusing on the brightness setting, this unique feature can help any type of facility conserve energy and cut back on energy costs. In order to tap into this energy saving feature, a facility manager needs to access the web interface that is associated with the digital IP clocks. Here, a user is able to access the brightness settings for each clock in the system. Since different facilities have different needs, Sapling has engineered each digital IP clock to include a High, Medium, Low, or Off brightness option.

Along with the ability to change the brightness level that each digital clock displays in real time, the digital IP clock system allows a user to establish a pre-determined Brightness Schedule for all the clocks within a system. Establishing a Brightness Schedule includes choosing which day(s) to set alternate brightness levels, the time of day the brightness level will change and the brightness level the clock will display (High, Medium, Low and Off). In addition, a user has the option to schedule a second time during the selected day that they would like to adjust the brightness level of the clocks.



| Sunday | 7 | : 00 | Set Brightness Hi | gh ▼ | 18 | : | 00 | Set Brightness Low 🔻 |
|-----------|---|------|-------------------|------|----|---|----|-----------------------|
| Monday | 3 | : 47 | Set Brightness Of | ff | 3 | : | 48 | Set Brightness High 🔻 |
| Tuesday | 3 | : 47 | Set Brightness Of | ff 🔻 | 3 | : | 48 | Set Brightness High |
| Wednesday | 7 | : 00 | Set Brightness Hi | gh ▼ | 18 | | 00 | Set Brightness Low ▼ |
| Thursday | 7 | : 00 | Set Brightness Hi | gh ▼ | 18 | : | 00 | Set Brightness Low ▼ |
| Friday | 7 | : 00 | Set Brightness Hi | gh ▼ | 18 | : | 00 | Set Brightness Low ▼ |
| Saturday | 7 | : 00 | Set Brightness Hi | gh ▼ | 18 | | 00 | Set Brightness Low ▼ |
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In a school setting, for example, if students, teachers, and employees begin to arrive at around 8 am, the school's facility manager can schedule the brightness level of the clocks to display the time on high beginning at 7:00 am when everyone begins to arrive. At the end of the school day, the facility manager can schedule the clock's display to turn off at 5:30 p.m. after everyone has left the school building for the day. By utilizing the Brightness Schedule, the clock's display can be set to low or completely turned off when the building is unoccupied. This can save any organization money as well as help conserve energy to further their green initiatives.

The Brightness Schedule can also assist employees and patients in a hospital setting. Since a hospital has constant activity, a facility manager can use the Brightness Schedule in order to program the digital clocks in the patient rooms to dim at 7 pm in an effort to make the patient's stay more comfortable. In conjunction with the dimming displays in patient rooms, the clocks in the hallways and by the nurse's stations can be programmed to display on high or medium brightness so employees have no problem seeing the exact time. These are just two of many industries that the Brightness Schedule can benefit.

Conserving energy has become an essential part in running a successful organization. By utilizing Sapling's Brightness Schedule feature in your facility, managers can cut back on the energy the clock system uses. Your organization can become more energy efficient, promote a greener way of business and cut back on your energy expenses. By choosing Sapling's digital IP clock system, a facility will not only be installing an accurate and reliable clock system, but also cutting back on unnecessary energy expenses.

In an effort to help companies and organizations cut back on energy expenses, Sapling has engineered each clock to include energy-efficient technology, making Sapling stand out against the competition. On the next page, see how Sapling's 2.5" and 4" digital clocks compare to our competitors.



| | Primex PoE Energy Efficiency | Comparison | | | | | | |
|---|---------------------------------|-----------------|---------------------------|--|--|--|--|--|
| | | | | | | | | |
| Digital Clock Size | Primex PoE Wattage* | Sapling Wattage | Sapling Digital Clocks | | | | | |
| | | | | | | | | |
| 2.5" digital clock | 12.9W | 5.1W | 57% more energy efficient | | | | | |
| 4" digital clock | 12.9W | 5.6W | 54% more energy efficient | | | | | |
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| | | | | | | | | |
| American Time & Signal Energy Efficiency Comparison | | | | | | | | |
| | | | | | | | | |
| Digital Clock Size | American Time & Signal Wattage* | Sapling Wattage | Sapling Digital Clocks | | | | | |
| | | , | | | | | | |
| 2.5" - 4 digit | 11.5W | 5.1W | 56% more energy efficient | | | | | |
| 2.5"- 6 digit | 13.5W | 5.1W | 63% more energy efficient | | | | | |
| 4" digital clock | 7.5W | 5.6W | 26% more energy efficient | | | | | |

For additional information on Sapling's digital IP clock system or the Brightness Schedule, please feel free to contact Sapling's sales department at (888) 809-6063 (domestic),+1-215-322-6063 (international) or at sales@sapling-inc.com.

^{*}Wattage information for the Primex PoE Digital Clocks available at Primex's website as of August 2019.

^{*}Wattage information for the American Time & Signal PoE Digital Clocks available at American Time & Signal's website as of August 2019.