What is Ergolight Controls technology?
Lighting systems with Ledalite’s Ergolight Controls technology provide enhanced lighting quality and unprecedented energy savings. Using integrated daylight sensors, occupancy sensors and personal dimming controls at each workstation, Ergolight Controls respond to personal preferences and adapt to changing conditions throughout the day. Combined with powerful, system-wide energy management capabilities, Ergolight Controls provide a complete lighting controls solution.

Features and benefits:
- Quality, ergonomic lighting improves user satisfaction and productivity
- Proven to reduce lighting-related energy consumption by as much as 87%
- Optimized for sustainable building projects such as LEED®
- Plug and play installation
- Simple software and controls commissioning with the click of a mouse
- Fully-scalable for even the largest installations
- Uses non-proprietary, off-the-shelf dimming ballasts no need to re-commission after a simple ballast change

What is workstation-specific lighting?
This unique approach to office lighting involves the optimal placement of fixtures, occupancy sensors and daylight sensors relative to the location of office workers and their visual tasks.

Traditional office lighting systems supply the same amount of light throughout the space, regardless of where visual tasks are being performed. In contrast, Ergolight Controls workstation-specific approach positions one fully-controlled, direct/indirect luminaire above each workstation to provide the appropriate amount of light to work surfaces while still achieving recommended illumination levels in non-task areas through indirect ambient light.

Beyond delivering quality lighting when and where its needed, the workstation-specific approach yields significant energy savings over conventional lighting designs. In a typical Ergolight Controls installation, 35-55% fewer fixtures are required to meet recommended illumination levels in task and non-task areas.
What is ‘ergonomic’ lighting?
Ergonomic lighting systems seek to improve a worker’s performance and well-being by optimizing their visual interaction with their workspace. This can be achieved through lighting controls and the improved design and arrangement of luminous elements and lighting equipment. Ergolight Controls helps optimize visual environments in several ways:

Personal dimming controls
By empowering users to adjust light levels from personal desktop computers, Ergolight Controls accommodates unique visual capabilities, lighting preferences and changing visual tasks.

Note: Research conducted by the Light Right Consortium has shown a direct link between personal dimming controls and improved performance in the workplace. Occupants with dimming controls demonstrated more sustained motivation and improved productivity, measured by persistence and vigilance in performing tasks.

Daylight sensing
Ergolight Controls integrated daylight sensor monitors light levels on the desktop and gradually adjusts lamp output to compensate for changes in available daylight. This helps workers maintain their preferred lighting levels regardless of variable conditions throughout the day.

Direct/indirect workstation-specific lighting
Positioning one luminaire over each individual workstation produces the highest quality ergonomic illumination. The controlled direct/indirect distribution minimizes computer screen glare and creates diffuse ambient lighting throughout the space to further enhance lighting quality.

What are the typical light levels?
By suspending one Ergolight Controls fixture over each workspace, each worker receives the ideal amount of light, when and where they need it. In typical ceiling heights of 9 feet, the resulting illuminance is maintained at an average of 40-50 footcandles. Adjacent circulation areas are lighted indirectly to 10-25 footcandles.

Note: Please contact Ledalite directly for project-specific calculations of footcandle distributions.

How do variable light levels affect the aesthetics of the space?
Ergolight Controls are designed to maintain quality illumination and lighting aesthetics even while allowing adjustments in light levels. In open office areas, facility managers can enable personal dimming and sensor controls for task lamps only while ambient uplight remains constant. As a result, workers can enjoy their preferred light level without compromising the overall look and feel of the office environment. With Ergolight Controls software, occupancy sensors and load shedding functions can be programmed for extremely gradual dimming - for example, over a period of 15 minutes - so that changes in light levels are virtually unnoticed.

What control do personal users have?
Ergolight Controls technology empowers people to work with the ideal amount of light, when and where they need it. Convenient personal dimming controls on each user’s desktop computer allow them to adjust task lighting to preferred levels. Ambient uplight remains constant so people in neighboring workstations are not distracted.
What control does the facility manager have?

With Ergolight Manager software, the facility manager has access and control over the entire lighting network. Task and ambient lamps can be separately controlled in real-time or scheduled in advance. Control settings can be applied to individual fixtures, groups_areas or to the entire lighting system.

Specifically, the manager can perform the following functions:

- Make real-time adjustments to fixture light output for task and/or ambient lamps.
- Commission sensor settings on a global or group scale from the central Ergolight Manager software.
- Enable/disable occupancy sensor and/or daylight sensors.
- Manage lighting loads and significantly reduce peak demand charges with Ergolight Controls load shedding capabilities.
- Verify and forecast lighting-related energy costs and consumption with energy tracking and monthly reporting features.
- Schedule any lighting event on a daily, weekly, monthly or one-time basis including sensor controls, load shedding, dimming and on/off functions.

How many fixtures can be controlled by the Manager?

There is no limit to the number of fixtures the Manager can control from a single, central computer. Each lighting network is connected to a Master Control Unit (MCU) that supports up to 800 fixtures. Larger installations can be accommodated by giving managers control over multiple MCU networks.

How is lighting controlled in off-hours?

Ergolight Controls software makes it easy to manage off-hours lighting and eliminate overnight lighting waste. During the day, occupancy sensors in open-offices are usually programmed to control task lamps only while ambient uplight remains constant. In off-hours, the Manager can schedule sensor controls for both task and ambient lamps so that all lights dim to off when the space is unoccupied, or conversely, illuminate when someone enters. That means no one will forget to turn off the lights, or forget to request them on. Workers staying late will have ample lighting without having to initiate a 'controls override' request. Maintenance and cleaning crews will also have enough light when and where they need it - and the lights will automatically dim to off shortly after they leave. To provide security and egress lighting, the manager can simply create a group of fixtures (located anywhere throughout the office) that is exempt from off-hours occupancy settings and is instead scheduled to provide 24-hour lighting.

Can you still use the light switch?

Yes. Your light switch can be used to turn Ergolight Controls on and off, exactly like conventional lighting systems. However, light switches are no longer necessary since the manager can program occupancy sensors to operate all switching. Lights can be controlled directly from the Manager software.

Can one user control multiple fixtures?

The Ergolight Controls software allows a user to control up to four fixtures. When registering their software, the user can enter up to four serial numbers. When using the software, the user can check 1 to 4 boxes indicating the fixture(s) to be controlled.
Can a single occupancy sensor operate multiple fixtures?
Yes. Occupancy sensors in multiple fixtures (up to four) can be linked so that lamps turn on or off in unison whenever any of the linked occupancy sensors are triggered. This is an important function for private offices and common areas with multiple fixtures.

Can a worker control somebody else’s fixture?
Yes it is possible, but the Manager would have to make the choice to allow it. In the Ergolight ControlsInterface software, the default setting allows for only one user to be registered to control an Ergolight Controls fixture. By maintaining this default setting, neighboring workers won’t be able to remotely control other fixtures. In addition, managers have the option of password-protecting the registration screen so that only authorized personnel can set up the personal dimming feature.

What is a ‘Lighting Network’? How does it work?
The Ergolight Lighting Network provides a central and simple way to control lighting and manage lighting-related energy throughout the entire office. Each Ergolight Controls fixture has a control board with an integrated daylight sensor and infrared occupancy sensor. These ‘smart’ luminaires are connected together using standard network cable to create a ‘lighting network’. Combined with Ergolight Controls software, the lighting network replaces manual wall switching with a global ‘window’ from where the facility manager can perform all lighting functions. Individual users who are connected to the lighting network and running Ergolight Control software can adjust personal light levels from their desktop computer.

How many fixtures can be connected to a Lighting Network?
Each lighting network is connected to an Ergolight Master Control Unit (MCU) that supports up to 800 fully-controlled fixtures. Each MCU is attached to a computer (supplied by others) located on the local area network and running Ergolight Interface software.

To accommodate larger installations, multiple lighting networks can be linked to a single Manager computer. An Ergolight repeater unit must be installed after every 150 fixtures (or 2000 feet of network cable) to ensure reliable communication to each fixture.

What is involved in commissioning the lighting system?
The contractor is normally responsible for installing the fixtures and connecting them together using the supplied network cables. When this work is done, a Ledalite representative will work with the owner in setting up and initializing the Ergolight Controls system, including software installation, program configuration, system testing and training.

SYSTEM SOFTWARE
What software programs run the Ergolight Controls system?
The Ergolight Controls system has three software components, all included on the Ergolight Controls System Software CD-ROM: Ergolight Interface, Ergolight Manager and Ergolight Control (personal dimming). Each program comes with a user-friendly set-up wizard. Default setup entries accommodate
most common applications. All Ergolight Controls software follows standard Windows 2000/XP® software conventions and can be removed from the system via the Windows Control Panel.

Each lighting network of up to 800 fixtures is controlled by an Ergolight Master Control Unit (MCU) via USB cable which is connected to a computer running Ergolight Interface software. The Ergolight Interface computer is the main communication portal of the lighting network, operating 24/7 to process lighting commands and collect power data. The facility manager (via Ergolight Manager software) and personal users (via Ergolight Control software) send lighting commands to the Interface software over the local area network (LAN). The Interface computer relays commands (via the MCU) to appropriate fixtures on the lighting network.

**Note:** Ergolight Manager and Interface software are typically installed on the same computer, but can reside on separate computers located on the local area network (LAN).

**Note:** It is not necessary to install Ergolight Controls software on the network server. Ergolight Interface and Manager software can reside on any computer located on the local area network. Ergolight Control (personal dimming) software must be locally installed on employee PC’s. If the Manager and Interface software are running on separate computers, the Ergolight Control database file must be located in a shared network folder to enable personal dimming functionality. All other lighting and energy management functions can operate independent of shared network folders.

### What is Ergolight Interface software?

The Ergolight Interface acts as a ‘server’ for your lighting network, enabling computers connected to your local area network (LAN) - including the facility manager and individual users - to communicate with all fixtures connected to your lighting network. The Interface software performs the following functions:

- Receives and distributes personal dimming commands from users
- Executes real-time lighting commands and scheduled events from the Ergolight Manager
- Maintains a database of registered users, group configurations, fixture identification, power consumption data and scheduled lighting events
- Maintains a log of system activity

Although it’s not required, Ledalite recommends using a dedicated computer to run Ergolight Interface software 24/7 to ensure control commands, scheduling and energy reporting functions are properly executed.

### What is Ergolight Manager software?

Ergolight Manager is a powerful software program that gives facility managers control over your building’s entire lighting system, including:

- Ability to perform commands in real-time or schedule lighting events in advance
- Ability to commission controls and apply lighting commands to individual fixtures, groups/areas, or to the entire lighting networks
- Ability to operate task and ambient lamps separately
- Ability to verify and forecast lighting energy costs and consumption with power tracking and reporting
- Ability to manage lighting loads and peak demand energy costs through load shedding
- Ability to organize/configure the Lighting Network into customized control groups
Ergolight Manager and Interface software are typically installed on the same computer, but can reside on separate computers located on the local area network (LAN). If the Manager and Interface computers are separate, a common database location must be selected to launch the programs. The Ergolight Interface computer and software must be running before you can launch Ergolight Manager.

**What is Ergolight Control software (personal dimming)?**

Ergolight Control software gives office workers dimming control over their workstation lighting from the convenience of their personal computers. With Ergolight Control’s onscreen dimming slider, users can easily adjust light to preferred levels or turn task lamps on and off.

Ergolight Control software must be locally installed on each computer. This is performed either by using the Ergolight Controls System Software CD-ROM, or by accessing the program files from a shared network folder.

Before a user can begin using personal dimming controls, their fixture(s) must be registered in the Ergolight database. This is a relatively simple task that involves entering a unique user name, the serial number(s) of the fixture(s) they wish to control, and the network name/IP address of their Interface computer connection. Users can perform registration on their own, however, Ledalite recommends that facility managers or a Ledalite representative install Ergolight Control software on each user's PC to ensure the integrity lighting network.

**Note:** Ledalite supplies an Ergolight Control Ship Disk that contains the serial number of every fixture you purchased. Serial numbers can also be found on the quick reference tag hanging from each fixture at the time of installation and on a label applied to the inside of each fixture. Ledalite recommends loading all of the serial numbers from your Ship Disk before allowing users to register on their own.

**What are the minimum system requirements for each software component?**

**Ergolight Interface computer**

Intel Pentium processor 133 MHz or higher; 64MB RAM (128MB recommended); 20MB free space on hard disk; CD-ROM drive; availability to run 24/7; VGA or higher resolution monitor.

**Ergolight Manager computer**

Intel Pentium processor 133 MHz or higher; 64MB RAM (128MB recommended); 20MB free space on hard disk; CD-ROM drive; availability to run 24/7 recommended; VGA or higher resolution monitor.

**Personal Computers (with Ergolight Control software)**

Intel Pentium processor 133 MHz or higher; 64MB RAM; 1MB free space on hard disk; CD-ROM drive; VGA or higher resolution monitor.

**Does installing Ergolight Controls software add or replace any files on my Windows system?**

When installing Ergolight Controls software the setup wizard will check the Window's system directory to see if current versions of the following files are installed:

- mfc42.dll (MFCDLL Shared Library - Retail Version)
- msvcr7.dll (Microsoft C Runtime Library)

If older versions of these files exist, they will be updated. If the directory contains newer versions of these files they will not be replaced. When installing Ergolight Interface or Ergolight Manager the setup wizard...
will add the Microsoft DAO Object Library version 3.5 if it is not already present. This enables both the Interface computer and any computer running Ergolight Manager to properly communicate with the system’s database.

**Are there backup and recovery procedures for lighting network database files?**

Yes. Users can import and export Ergolight Controls system databases as Microsoft Access® MDB files. These files can be saved onto other storage mediums or stored on other file servers.

**Is any Ergolight Controls software located on my network server?**

No. It is not necessary to install Ergolight Controls software on the network server. Ergolight Interface and Manager software can reside on any computer located on the local area network. Ergolight Control (personal dimming) software must be locally installed on employee PC’s.

If the Manager and Interface software are running on separate computers, the Ergolight Control database file must be located in a shared network folder to enable personal dimming functionality. All other lighting and energy management functions can operate independent of shared network folders.

**What if our computers do not operate on Windows software?**

If Ergolight Interface software and Ergolight Manager software are used on the same computer, only one Windows PC is needed to operate up to 800 Ergolight Controls fixtures. This setup would not, however, support personal dimming controls. Windows operating systems are required for each computer that runs the personal dimming software. The facility manager does have the ability to individually set light levels for workstations without Windows by using Ergolight Manager software.

**SYSTEM HARDWARE**

**What is an Ergolight Master Control Unit (MCU)?**

One Ergolight Master Control Unit (MCU) is required for every 800 fixtures. The MCU translates commands from the system software to the lighting network via a USB cable connection (supplied) to a dedicated computer (supplied by others) located on the local area network and running Ergolight Interface software (supplied).

*Note:* Your MCU kit includes a 120V AC Power Adapter, USB cable, Ergolight Controls System Software CD-ROM, and an Ergolight Controls System Manual.

**What is an Ergolight Repeater Unit?**

One Ergolight Repeater unit is required after every 150 fixtures or 2000 feet of network cable to ensure reliable communication to each fixture.

**LOCAL AREA NETWORK and ERGOLIGHT CONTROLS**

**How is my local area network (LAN) being used?**

It is important to note that Ergolight Controls fixtures are not attached to your office LAN, and that
beyond the standard TCP/IP protocol, no additional software is required on the LAN server. Your existing LAN simply acts as a TCP/IP communication medium between personal users with Ergolight Control (personal dimming) software and the computer(s) running Ergolight Interface software. When a user adjusts personal light levels using their onscreen dimming slider, a TCP/IP command is sent from the user's computer, over the LAN, to the computer running Ergolight Interface software. The Interface computer then sends a confirmation TCP/IP command back over the LAN to confirm the action.

**What happens if our network server is down?**
In most installations, there is no functionality affected by network server failure/disruption. Ergolight Controls functions remain fully-operational, even if the server is down, as long as the Interface and Manager software are running on the same computer (which is typically the case). If Interface and Manager software are running on separate computers, the lighting system will function using the most recent settings for occupancy and daylight sensors.

In cases where the Ergolight database file is located on the network server (only typical for large multi-MCU installations involving more than 800 fixtures), the system continues to function using the most recent settings for sensors and personal light levels (saved in each fixture's control board). Real-time personal dimming control and the ability to make changes to the system settings will, however, be suspended until the server connection is restored.

**Is there an option to operate the Ergolight Controls system without using the LAN in any way?**
Yes, this is often the case. In most installations,* the LAN network cables only used to communicate personal dimming settings. All other Ergolight Controls functionality (including central dimming/switching control, sensor commissioning, event scheduling, energy management, etc.) operate entirely independent of the LAN. If you choose to operate your Ergolight Controls system without the personal dimming feature, the LAN is not required for any functionality whatsoever.

*Note: A ‘typical’ installation assumes that the Interface and Manager software are running on the same computer. This is usually the best way to set-up the system in installations with a single lighting network that supports up to 800 fixtures. In larger installations where multiple lighting networks are linked, the LAN will be required to enable multiple Interface computers to communicate.

**Will the additional traffic on the LAN slow response times?**
Your LAN response times should not be noticeably affected by Ergolight Controls. Typically*, the LAN is only used as a TCP/IP communication medium to send personal dimming commands between users and the Interface computer. User dimming command are less than 50 packets.

*Note: A ‘typical’ installation assumes that the Interface and Manager software are running on the same computer. This is usually the best way to set-up the system in installations with a single lighting network that supports up to 800 fixtures. In larger installations where multiple lighting networks are linked, the LAN will be required to enable multiple Interface computers to communicate.

**Does our LAN need to have static or dynamic IP addresses?**
The Ergolight Controls system can function properly in either case. Since most modern LANs use dynamic IP addresses, Ledalite recommends using this setup. If you choose to use dynamic IP addresses on your LAN, your interface computer will require a unique network name.
INSTALLATION / RECONFIGURATION OF FIXTURES

What happens when occupants change their working location?
With Ergolight Controls software it’s quick and easy to re-assign people to different fixtures. Users must register their new fixture by accessing the main menu on the Ergolight Control (personal dimming) software. This feature can be password-protected to eliminate unauthorized registration and control of fixtures. The Ergolight Controls System Manual provides further details.

What happens if the workstations are rearranged?
Ergolight Controls fixtures are designed with ease of installation and reconfiguration in mind. Each standalone luminaire provides modular electrical and network wiring. Fixtures can simply be unplugged and moved. In some cases, electricians may be required to change mounting positions and install to code.

Are there any maintenance considerations?
Because an Ergolight Controls system uses fewer lamps to light an area, and because these lamps are operated for fewer hours per year, re-lamping costs should decrease by well over 50%. Also, re-lamping time is minimized because there are no lens or louver doors to impede access to the lamps.
Ergolight Controls also use non-proprietary off-the-shelf dimming ballasts. There is no need to recommission after a simple ballast change.

ENERGY MANAGEMENT / COST SAVINGS

How do Ergolight Controls lower my energy costs?
Ergolight controls provide 65 – 85% energy cost savings over conventional lighting. Office lighting designs typically consume a large, fixed amount of energy throughout the day with all lights on full power from when the first person arrives until the last person leaves.

Ergolight Controls workstation-specific approach to lighting requires 35 – 55% fewer fixtures than conventional lighting systems, cutting consumption by almost half while still maintaining appropriate light levels in both task and non-task areas. Daylight and occupancy sensors adjust light levels throughout the day to produce substantial energy savings while personal dimming controls allow users to dim lights to preferred levels which generates further savings.

In the end, Ergolight Controls technology has proven to reduce lighting-related costs by 65% compared to traditional T8 systems, and by more than 85% on older T12 systems.

How does the installed cost of Ergolight Controls compare to conventional lighting systems?
The installed cost for Ergolight Controls is usually in the range of $2.50 to $4.00 per square foot. Compared to conventional 2x4 troffers and the required control systems to meet current energy codes, the Ergolight Controls system may be more expensive. However, because Ergolight Controls minimizes power requirements and therefore adds less heat to the building, appropriate downsizing of air conditioning systems can lead to substantial first cost savings. Coupled with the elimination of light switches, the net
difference in first cost between the two lighting and control approaches can be minimal.

And due to the substantial reductions in ongoing energy expenses, Ergolight Controls is usually the least-cost alternative when considering all factors: materials, labor, energy, maintenance and the cost of capital.

**Are utility rebates available to offset the cost of Ergolight Controls?**

Many state governments are offering attractive rebates through utilities to encourage investments in energy conservation. Although the structure of the rebate varies from state to state, there are incentives available for up to 75 percent of the project cost in retrofit, and up to 100 percent of the incremental cost in new construction. Contact Ledalite or your local utility representative for details.

**How does personal dimming control save energy?**

Ergolight Controls takes advantage of the fact that most people prefer a lower light level for computer-based work. On average, Ergolight Controls users have been found to select a light level about 30-50 percent lower than the maximum. The resulting energy savings are proportional to the level of dimming.

**How does daylight dimming save energy?**

Ergolight Controls’ integrated light sensor “reads” the light level on the desktop and automatically dims the lamps to compensate for changes in available daylight.

**How can you measure the energy consumption?**

Ergolight Controls power tracking and reporting features allow facility managers to verify and forecast energy costs. You don’t need to install any meters or sensing devices to measure the energy consumption. Ergolight Controls’ intelligent electronics routinely record the history of each fixture’s settings, calculate energy use and send energy data to the Ergolight Controls database. The Ergolight Controls Manager program allows building managers to generate real-time energy consumption and demand reports by inputting their local energy rates.

**What’s the payback?**

Using national average rates and other conservative assumptions, the typical payback period is 1 to 3 years in new construction, and 3-7 years in retrofit projects. These numbers vary due to energy costs and rebates available in different geographical areas. Note that these payback periods are based on operating and maintenance savings alone, and do not take into account the significant economic benefits of worker productivity gains attributable to the ergonomic lighting. Ledalite has developed a life-cycle cost/analysis spreadsheet that calculates the financial performance and payback periods with Ergolight Controls compared to alternative lighting system choices. Please ask your Ergolight Controls sales representative for details.

**Can Ergolight Controls help us earn LEED® Credits?**

Ergolight Controls are designed to embrace the principles of LEED, the US Green Building Council’s voluntary rating system for developing high-performance sustainable buildings. As such, it can assist designers working on LEED projects in several categories. See the product brochure for your Ergolight Controls product for further details.
SERVICE AND SUPPORT

How is the system installed? Is there support available to commission the system?
The contractor is normally responsible for installing the fixtures and connecting them together using the supplied network cables. When this work is done, a Ledalite representative will work with the owner in setting up and initializing the Ergolight Controls system, including software installation, program configuration, system testing and training.

How is ongoing technical support provided?
Ledalite is committed to providing its customers with high-quality technical support. Service and Warranty coverage for hardware components of systems with Ergolight controls is administered under Ledalite’s standard service and warranty policy.
The following describes the variety of support services available for the software components of Ergolight Controls.

System Manual
The Ergolight System Manual provides all of the information needed to set up and troubleshoot a lighting network effectively. Before calling for technical support please read the relevant areas of this manual carefully, particularly the Troubleshooting section, which offers solutions to commonly found problems when configuring an Ergolight Controls system.

Online Help
The online help system within the Ergolight Controls software enables you to retrieve information quickly. For quick access, you can keep the Help window displayed on top of the application. You can also print specific topics from the online help section. When you click Help Topics from the Help menu, a dialog box opens that provides three ways to access the help you need. To access online Help, click Help Topics.

Local Ledalite Sales Representatives
Local Ledalite Sales Representatives will be trained by Ledalite to set up and troubleshoot Ergolight systems. Ledalite Sales Representatives will be expected to provide support during the initial installation and set up of an Ergolight system in their territory. Ledalite will fully support sales representatives and will have staff onsite to perform initial system set up and commissioning for Ergolight Controls projects.

Principal technical support service (604-888-6811)
Free technical support for Ergolight Controls software is available for 30 days from the day the customer places their first call to Ledalite. When placing a call, please press “0” and ask the receptionist for technical support relating to Ergolight Controls. Ledalite representatives are available to respond to calls from Monday to Friday 8:30 am to 4:30 pm Pacific Standard Time. Before calling for Ergolight technical support, please have all ‘Troubleshooting Information’ readily available. This will assist the technical support representative in helping you more quickly and efficiently.

Extended support services
For details on the support options available after principal support expires, please contact your Ledalite representative at (604) 888-6811.
During and after the principal support period customers can also use the basic services listed below free of charge.

**Email**

Support from Ledalite Representatives via email is available by sending correspondence to ergolight@ledalite.com. Please ensure that your email includes as many details as possible about the problem you are having. This should include the ‘Troubleshooting Information’ detailed on this page (see box above right). Ledalite will make every effort to respond to email questions in a timely fashion, however no guarantee is given on response time.

**Troubleshooting: What information should I have ready to receive support service?**

- A brief description of the problem, including the exact text of any error messages received, and steps to re-create the problem.
- The type of computer including hardware specifications (processor speed, RAM, Hard Drive space, etc…)
- The version of Microsoft Windows and Ergolight software in use. Choose the About Windows command from the help menu in Explorer to find which version of Windows you are running. Choose the About Ergolight command from the help menu in Ergolight Interface, Ergolight Manager or Ergolight Control to find out which version of the Ergolight software you are running.
- Any third party software recently installed on the computer.

**How are software updates handled? Are they free?**

Yes. Ledalite will release updates to the Ergolight Controls software suite to ensure that the software is compatible with new versions of all supported operating systems and network software. These updates will be free to all registered users for a period of two years from the software shipping date. After two years, the updates will be made available at a nominal charge. Ledalite will not support versions of software older than three (3) full revisions from the current version.