WinControl Designer
## Your Guide to Designing a Lighting Control System for Maximum Energy Savings

WINCONTROL DESIGNER USER'S GUIDE

Watt Stopper

legrand®

WinControl Designer User's Guide

Copyright © 2007 Watt Stopper/Legrand

Table of Contents

List of Figures

List of Tables

Chapter 1. Watt Stopper/Legrand

The primary goal of Watt Stopper/Legrand is to create energy savings through the use of controls. This enables the user to save money on operating costs while positively impacting the environment. We focus on educating the marketplace on what lighting and energy controls can do and what types are available. By demonstrating how waste occurs and how to combat it, we help our customers make the best choices for controls that will work best for them for years.

Contact Us

Visit us at our web site at http://www.wattstopper.com

Our design and tech support center is available at 800-879-8585, and 800-852-2778.

More information on **WinControl Designer** is available at our

WinControl Designer Home Page [http://www.wattstopper.com/designer]

More information on **WinControl** is available at our

WinControl Home Page [http://www.wattstopper.com/wincontrol]

Chapter 2. What Is WinControl Designer?

WinControl Designer is a software program from Watt Stopper that assists an engineer or other specifier in designing lighting control systems with relay based control panels.

WinControl Designer is a subset of our WinControl software, which adds online monitor and control, program transfer features, trending and analysis, and diagnostics capabilities.

WinControl Designer is intended for use in designing lighting control systems based on the Lighting Integrator family of relay based control panels.

Please visit our WinControl Designer web page at http://www.wattstopper.com/designer for the latest news and information and updates for WinControl Designer.

Chapter 3. Key features in WinControl Designer

- Question and Answer sequence to help select appropriate system options and default panel options for a new job.

- Job contact information allows tracking of contact information from design to installation.

- New panel wizard to walk through creation of relay panels and selection of option cards.

- Automatic "save" feature.

- Relay schedules are editable in easy to use grid format.

- Simple Channel and Dataline Switch setup emulates the Smart Wiring features of the hardware.

- Reporting capabilities allow creation of hard copy of panel and switch schedules for non-Complete Control field applications (when full WinControl is not used as the front end).

- Interoperability with WinControl allows data file to be used on site to upload program in applications where WinControl is the customer's front end.

- CAD format (DXF) output of various data that can be loaded into AutoCAD, including the following options:

    - Project Specifications

    - Riser Diagram (including front end, panels and network switches)

    - Typical Wiring Diagrams

    - Relay Panel Schedules

    - Group Switch (Channel) Schedules

    - Dataline Switch Schedules

- Send File to Watt Stopper feature to easily send file for factory review

- Ability to generate quote with Rep Quote tool

Chapter 4. What do I need to use WinControl Designer?

Before you begin installing WinControl Designer make sure your computer meets the minimum recommended requirements:

- Microsoft Windows XP Professional (recommended)

  Microsoft Windows 2000 Professional (minimum)

- 512 MB (recommended)

  256 MB (minimum)

- 100 MB of free hard drive space

- CD ROM drive

- Mouse, trackball or other pointing device

Chapter 5. Starting WinControl / Designer

When you launch WinControl Designer , you are presented with the "WinControl Startup Wizard", which provides you with the most common options for startup.

If this is the first time you have used WinControl Designer, you will either Create a New Site, or perhaps Open the Demonstration Site. Later, if you are coming back to WinControl, the default will be to Open an Existing Site, which defaults to the last site you were working with. To start working on a new site simply select Create a New Site and then click "Next".

Figure 5.1. WinControl Startup Wizard
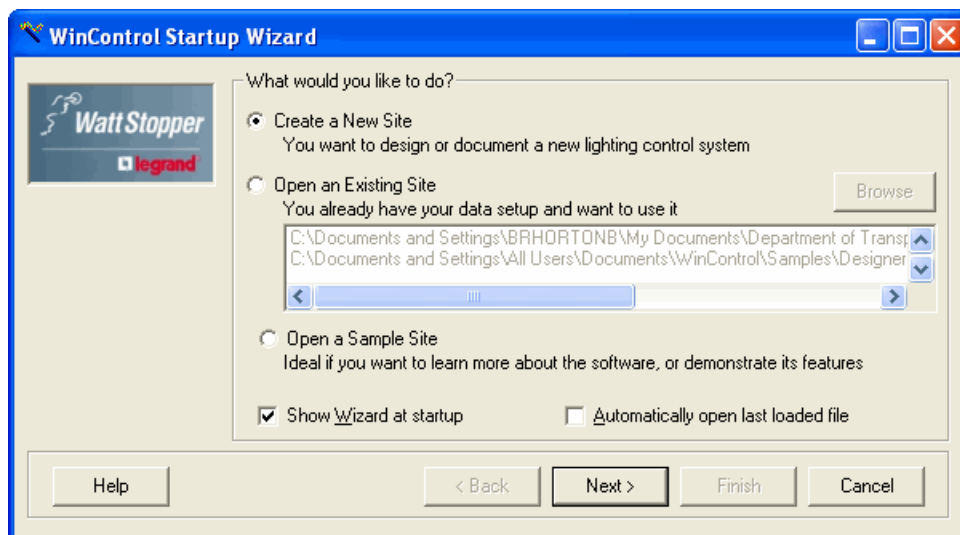
Chapter 6. Questions and Answers

To design a system with WinControl Designer, you should have documentation available as to the loads that you would like to control, including such information as your breaker schedules and reflected ceiling plans. You will be asked questions such as the following:

- **Approximately how many control panels you expect to use?**

  Often, one control panel is used per lighting breaker panel, our largest control panels contain 48 relays. Depending on the number of panels you enter, the appropriate automation and networking card that is best suited to the system size will be selected.

- **Do you want to network your panels together?**

  Networking panels together allows loads to be activated via time of day schedule, photocell, and switches that may exist or be connected to a different control panel. If panels are not networked together, each panel and its control points operated completely independently. When networking panels together, a dataline wire (typically 4 conductor) must be installed that connects the panels.

  Networking panels together requires a network capable automation card be installed in the panels, and will be automatically included if you check the "Network panels together" box.

- **Do you want to use network (dataline) switches?**

  Network switches are wall switches that are wired on a simple 4-wire network, with only one "home run" required back to the lighting control panel. These devices can be programmed to control single or multiple relays, and can be configured to control relay loads in different panels. If you would like to use these switches, an automation card is required in the control panel, and will be included in panels added to the system if you check the box labeled "Include support in panels for dataline switches".

- **Approximately how many dataline switches per panel?**

  If you checked the box for the previous question, an estimate of the number of switches helps us determine the appropriate networking card.

- **Do you want to use a PC to monitor, control, and program your system?**

  In some applications it may be preferable to use a time clock, handheld programmer, or use only simple grouping features that are driven by a separate device such as a BAS system than to use a PC.

  In systems with multiple panels networked together, it is often desirable to have the ability to use a PC to change programming information, monitor, and control the system. PC based communications requires an additional complete control card in the control panel, and will be included in panels added to the system if you check the "Support for optional PC front end" box.

After answering each question, click the Next button.

Figure 6.1. New System Wizard

Chapter 7. Contact Information

WinControl Designer gives you a central location to record information about the various people involved on the project. The job name is required to be entered and is used as the default file name for the project. Other information such as job location, Electrical Engineer (specifier), Owner, Electrical Contractor, and manufacturer's representative can be entered.

Figure 7.1. Job Contact Information
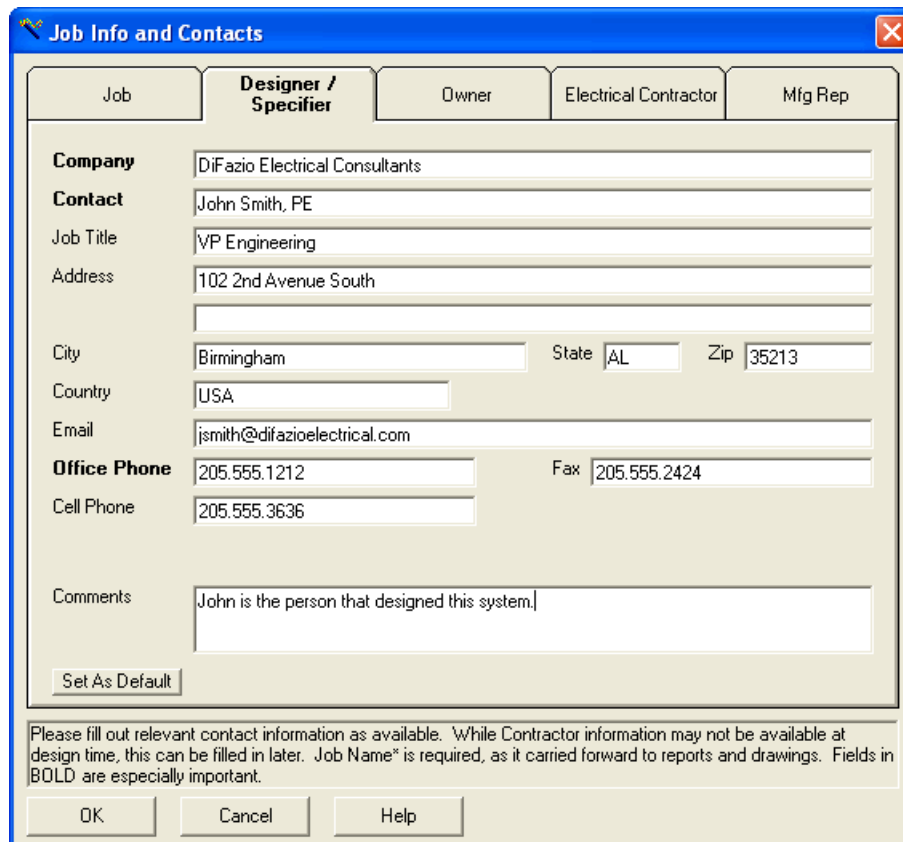
All data is saved in the site data file. After filling in any of these particular sets of data, you can choose to save that information for future projects you design using the "Set As Default" button.

Figure 7.2. Engineering Contact Information

Chapter 8. WinControl Helper

Figure 8.1. WinControl Helper

Once you have filled in the basic data to get started, you will see the "WinControl Helper" dialog. WinControl Helper is designed to provide a "jumping off" point to quickly access most of the features necessary to design a basic system. When you become more proficient in WinControl Designer, you may elect to close this helper. It can be reopened at any time from the **View** menu, **WinControl Helper** option, or by clicking the appropriate the toolbar icon.

The options on the *WinControl Helper* allow the user to:

- Specify the *Job Information and Contacts*- See Chapter 7, *Contact Information* for more information.

- *Create New Panels*- This option allows you to add panels to a new or existing system. Create New Panels allows you to ill in the panels id, name, location, capacity, the number of relays installed in the panel, and if it will support Dataline Switches.

- *Document Panel Schedules*- This option allows you to fill in the individual load descriptions and circuit assignments for the relays. You may also fill in the details for the Global Switch Inputs and optionally add and define Dataline switches to individual panels.

- *Specify System Options*- This option allows you to select special features related to the type of system you select. For Complete Control, you can select the options related to the software, network, and computer options that will be used. For Automation Card systems, you can identify the number of telephone override devices, the photocell controller, or the scheduling device that will be used.

- *View Reports*- This option will generate a hard copy of the panel documentation, panel schedules cards for placement inside panel cover, and other filled in forms, including Group Switch input documentation and assignments, and Dataline Switch documentation and assignments.

- *Generate DXF Diagram*- This option generates a DXF (AutoCAD compatible diagram). Sample diagrams shown on pages that follow do not reflect new hardware which will be shown, and do not detail switch assignments, which will be included for all network types.

- *Exit WinControl*- This option will exit the WinControl program. You will have an opportunity to save the file if it has not yet been saved.

The buttons displayed are organized in a sequence that you may follow to get your project fully defined. After entering your project information, the next step is to "Create New Panels". After clicking this option, proceed to the next step, **Creating Panels.**

Chapter 9. WinControl Designer Toolbar

Figure 9.1. WinControl Designer Toolbar

Table 9.1. Toolbar Buttons

| Toolbar Button	Icon	Function
New		Open a new file.
Open		Open an existing file.
Save		Save the file currently open and all changes to it.
WinControl Helper		Launch the WinControl Helper menu.
Print		Display Report printing options menu.
Generate CAD Drawings		Displays the CAD Generate DXF options menu
Program Relay Panel		Displays Select LCP Relay Dialog so you can select a LCP, then displays Program LCP Relay Dialog
Program Time-of-Day Schedule		Displays Schedule Create/Edit Dialog.
Select Active System		Displays the select Active System menu (for sites with multiple systems)
System Properties		Displays the System Properties Dialog

Chapter 10. Documenting Panels

This section describes the process of creating and documenting your lighting control panels.

Figure 10.1. Panel Sizes

* 3 interiors for 8, 24, or 48 relays, and 3 enclosure sizes
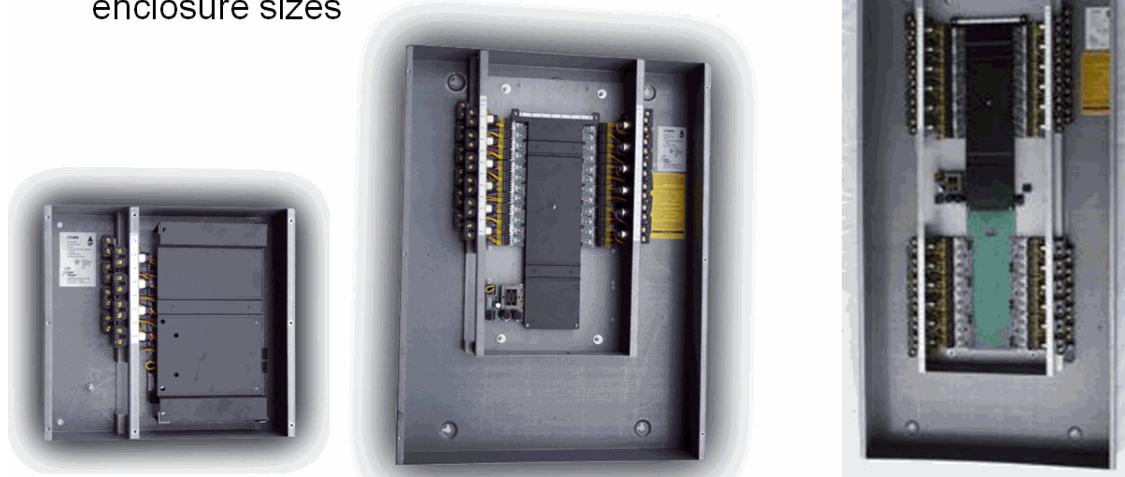
Creating Panels

After clicking the "Create New Panels" option the New Panel Wizard appears for entering the specifics of the panel.

Panel Id: All panels need to be assigned an "id" number. The system automatically assigns the next highest number to the new panel, though you may select any unique id number within the specified range. For Complete Control systems the panels may be numbered from 1-999 and for Automation Card systems the panels may be numbered from 1-99. Some projects associate the id to a floor number, while others number panels by floor skipping ten at a time, for example 10, 20, 30.

Panel Description: You may give the panel any description you like. The description will appear on the system riser diagram and on the printed hard copy of any reports or panel schedules.

Location: This is typically the room name or number of the electrical room where the panel will be installed. This information will appear on the system riser diagram, and on the printed hard copy of any reports and panel schedules.

Riser Location: In this field you may enter a number that specifies the location on the riser diagram to place this panel. A 1 is used for first floor, 2 for second floor, etc. If you have multiple panels on a single floor, you may specify 1.1, 1.2 for instance to place them in a particular sequence. If you leave this field blank, the Panel Id will be used instead to specify a riser location.

Figure 10.2. New Panel Wizard

Panel Capacity: You may choose the panel capacity based on the different panel sizes offered by Watt Stopper (see Figure 10.1, "Panel Sizes"). Panels do not have to be fully populated with relays, so you will want to pick the capacity that will provide room for the expansion that you require. You may specify a lower number of installed relays to reduce cost yet maintain flexibility. Panels may optionally have contactors installed to provide control of multi-phase loads, such as parking lot lighting (see Figure 10.4, "Contactors In Panels").

Dataline Switch Support: This option is automatically pre-selected for you based on earlier answers. When this option is selected, it automatically includes the necessary option card to support these switches. Dataline switch support is optional for Complete Control but is automatically included with the Automation Card. For Complete Control, you only need to include this option if this particular panel will need to be a termination point for dataline switches. For example, if you have a panel that is used to control lighting in a parking deck, and none of the dataline switches in the system will be connected to that panel, then the panel does not need the dataline switch support.

After you have filled in the necessary information, click "Create" and the panel will be created for you.

When the panel is created, you will then have the opportunity to document the loads (panel schedules and switches), create another panel, or end the create panel process. We recommend you **document your panel schedules** at this time, if you have the information available.

Figure 10.3. Next Panel Wizard

Figure 10.4. Contactors In Panels

The 24 and 48 size panels now have space provided for contactors or Lightsaver components
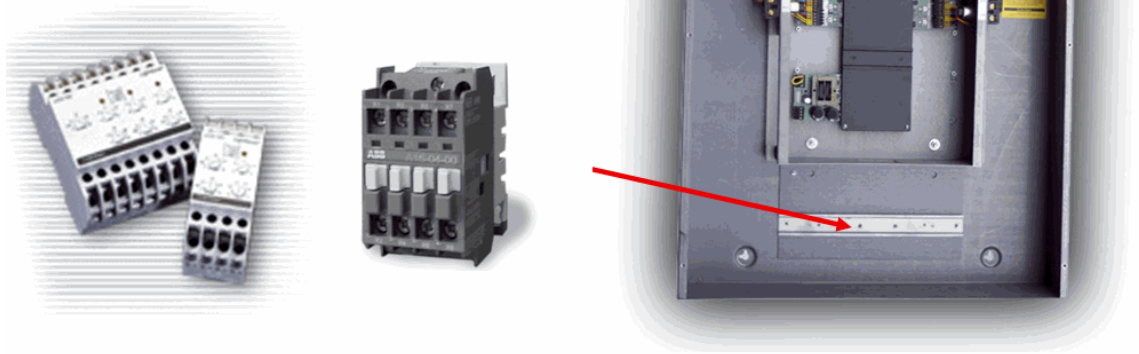
Documenting Panels - Basics

Documentation and hardward support for Watt Stopper/Legrand lighting panels.

Figure 10.5. Panel (LCP) Document

On this screen, you may fill in or modify:

- Panel name... you may enter text by which you would like to use to refer to this panel

- Panel location... text which describes the physical location of this panel, such as electrical room number.

- Riser location... a decimal number referring to the location of this panel on the riser diagram (used by DXF file). If more than one panel is on a certain level, specify sequence with a number after the decimal point, e.g. 1.1, 1.2, 1.3.

- Dataline switch support... check to support dataline switches in the panel via the Automation Card.

- ARP support... if the panel has Dataline Switch support then Automatic Relay Packs (ARPs) may be used with the panel if the CC firmware is version 18 or higher.

- Contactor support... document contactors for this panel. Contactors are supported for all but LP (Peanut) panels.

- Panel type... Select LI for Lighting Integrator series, Legacy for pre-LI panels (only LI series supports dataline switches)

- Interior size... capacity of the panel to hold relays, 8, 12, 24, 48 (12 is for Legacy only)

- Enclosure type... surface, flush, NEMA3, etc.

- Enclosure size... select enclosure size (smaller interiors can be installed in larger enclosures)

- Panel circuit... the circuit number that controls power to the panel

- Power supply... power supply type installed in the panel.

- Smartwired Programming... click "Manually in panel" if you would like to allow Smartwiring within the panel itself. The default, "Remotely from WinControl", allows button programming to be performed from WinControl. Local Smartwiring is ignored.

- Relay Cards... click to select the relay driver cards installed in the panel.

Figure 10.6. Relay Cards

Each LCP is identified with an "address" between 1 and 999 (99 for Automation Card). This address is assigned when creating the LCP before you can make any entries for documentation of the LCP. The address is used to refer to the LCP whenever programming the relays, or performing any monitor or control functions for the relays in the LCP. The address is set on the intelligence card in the LCP. There are two or three red rotary switches on the card used to set the appropriate number. In a system using CC cards, the CC card determines the address with three rotary dials. With only an Automation Card (AC), the AC card has two rotary dials to determine the address.

The minimum amount of documentation required for a LCP is the address and total number of relays available in the panel.

After Documenting the basic info for the panel, you may document individual relays (see the section called "Documenting Panels - Relays").

Documenting Panels - Relays

The Relay tab provides a summary of relay documentation and programming for all relays within the current panel.

Figure 10.7. Panel - Relay Documentation

Information for each relay may be easily edited including copy and paste features. The default relay **Type** is "Pilot", however you may set them to Status Only, Non-Pilot, ARP or Space. ARP is only displayed if ARP support is selected in the panel documentation page. Set some positions to "Space" if no relay is to be installed in that position, saving room for later expansion. Detailed information includes the **Circuit**, **Description** of load, information on (optional) low voltage switches (**LV Switch**) controlling the relay, as well as an optional **Comment**. An additional field allows you to specify the total load (in watts) that is connected to the relay.

By clicking on the relay number at the right of the window, a pop up window will appear to allow you to edit some of the advanced properties.

Figure 10.8. Panel - Relay Documentation
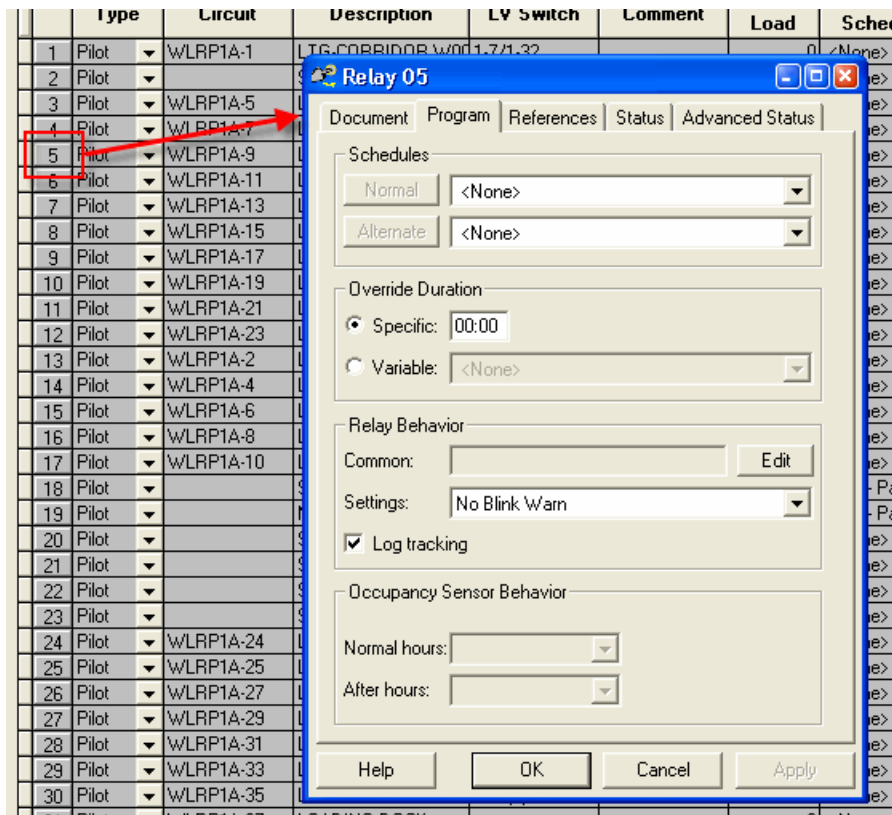
The relay page offers an option that is not available on the panel relay page. The Occupancy Sensor Behavior effects how the relay responds to an occupancy sensor input depending whether the relay is currently in Normal Hours (occupied) or After Hours (unoccupied).

Other tabs available for panels include the the section called "Documenting Panels - Channels (Group Switch Cards)" and **Dataline Switch** pages as required.

Documenting Panels - Contactors

The Contactors tab is where details regarding the contactors installed in a panel may be recorded.

On this screen, you may add contactors to the documentation, by clicking on the "Add Contactor" option. Further, to remove a contactor, choose the contactor and select "Delete Contactor". The coil voltage is documented on this screen as well (the assumption is that all contactors share the same coil voltage). For individual contactors, you may select either a Normally Open (N/O, the default), or Normally Closed (N/C) contactor. Contactors may be installed in the panel (Internal) or may be documented as installed separately in another enclosure (External) in the Location column. The controlling relay may be selected for each contactor. Four pole contactors are the standard when ordered with your Lighting Integrator panel. For each pole in the contactor, you may specify the circuit and description of the load controlled.

A report is available to that will list all of the contactors that you have documented your panels. See the section called "Contactors".

Figure 10.9. Panel - Contactor Documentation

Documenting Panels - Channels (Group Switch Cards)

Why would I want a Group Switch Card?

Group Switch cards are for terminating low voltage inputs, such as **wall switches**, **occupancy sensors** inputs, and **photocells**

Each group switch card provides 8 channel inputs, each of which can be configured to control any or all relays within a panel. When used with the PC automation card, you can setup the channel input to be connected to a photo sensor, which can be then programmed for various foot-candle set points. Each input that is terminated to a channel requires 2, 3, or 4-conductor cable to be wired from the Channel to the input device. Each channel supports 2 or 3 wire inputs, and a fourth wire can be used for a pilot feedback. For systems with Complete Control, you also have the option to have the button control a group that includes relays in multiple panels. Such a group can have a functional profile such as Master, Blink, Clean, Shed, Force On, and Force Off.

Figure 10.10. Channel Documentation

In this example, we have setup Channel A to control relays 30 and 31 in panel 1, which correspond to Room 101 and Room 102, and Channel B to control relays 16, 17, and 37:

Normally, channels default to the "On/Off" function, which means the relays are all controlled to either an ON or an OFF state as a group, based on the state of the input connected to the Channel on the Group Switch Card.

You may optionally choose to control some relays to an ON state and some to an OFF state based on the activation of the Channel input. This is known as a Pattern, and you will specify the relays to control ON and the relays to control OFF separately.

If you click on the "On/Off" or the "On" or "Off" button in the Loads Controlled area of the dialog, a pop up window will display allowing you to pick the relays to control. There is a check box at the top of this screen labeled "Pattern". This option is comparable to the Pattern button on the Group Switch Card when Smart Wiring the device. Further, you can click on the buttons that display individual relay numbers. When Pattern mode is not selected for the channel, click once to include the relay for "ON/OFF" control (displayed in Red). Click again to remove the relay from control.

Figure 10.11. Channel - Selecting Loads to Control

If Pattern mode is selected, the first click will include the relay for ON control (displayed in Red), and a second click will set the Relay for OFF control (and display the relay in Green). A third click will remove the relay from control, and return it to the Grey color.

This selection process, as well as the color coding (Red and Green), matches the Smart Wiring process when performing this programming at the panel.

Figure 10.12. Group Switch Card in Panel
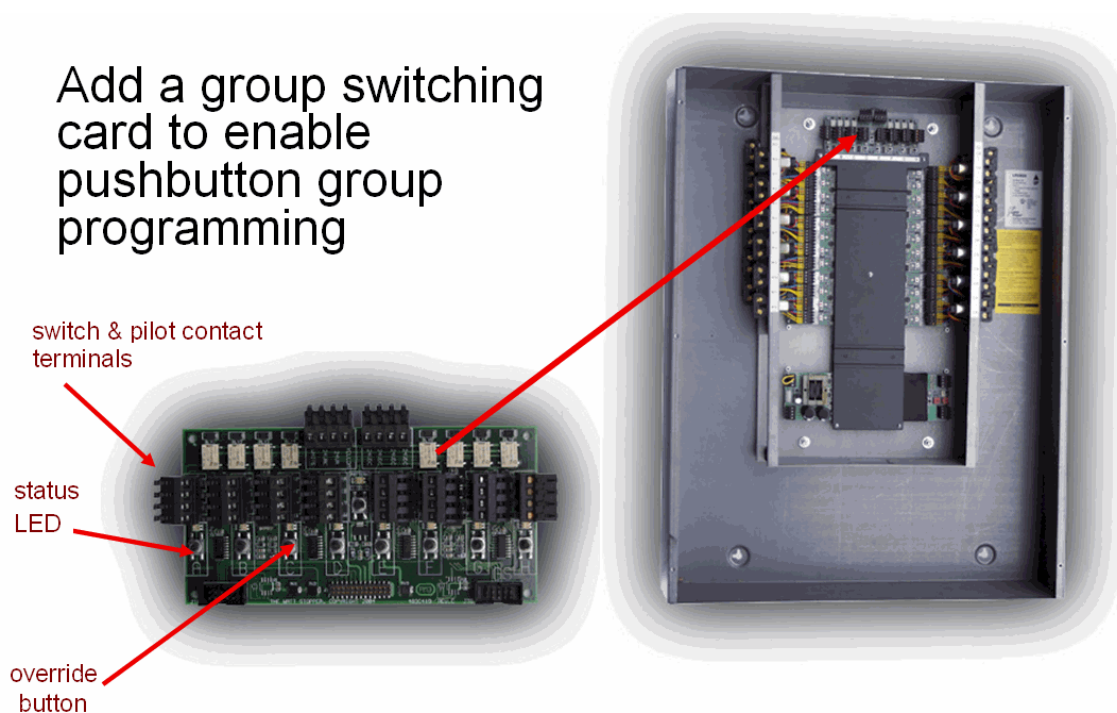
The Channel page is the location to document and program the Group Switch card inputs known as Channels. Each group switch card provides 8 channel inputs, and each channel can be Smartwired or programmed from the PC to control an individual or a group of relays. When used with Complete Control, a channel input can be used to terminate an analog input (such as a photocell sensor). See the section called "Analog Inputs and LI-CC Panels" for more information on programming analog inputs.

Programming the Channel inputs on the Group Switch card allows you to specify either directly ON/OFF control or Pattern Control of a list of relays. In either case, all relays must be in the same panel as the Channel input. In the case of Complete Control, each channel may optionally be setup to control a Group Code. Group codes do allow the ability to control relays in any number of panels in the system.

You may select the relays by clicking on the On/Off button, or by typing in the list of relays in the "Loads Controlled" field. The Description field is used to indicate the location or area of the switch connected to a given channel. Use the Function drop down list to select the On/Off or Pattern option, as well as to choose or create a Group Code. See the section called " Group Codes (CC only) " for more information.

Figure 10.13. Documenting Panels - Channels

Analog Inputs and LI-CC Panels

Analog Input connections are supported in LI-CC panels when a GS card is installed. These connections provide support for WattStopper/Legrand photocell sensors as well as supported third party analog device termination. The analog input supports a voltage range from 0 to 4 volts and the output action is completely configurable from WinControl.

To setup an analog input, you will Program the Lighting Control panel in which the input is terminated. Choose Program - LCP - Channels from the WinControl menu and choose the panel, or right click on the panel in the tree view and choose Properties. When the panel information is displayed, choose the "Channels" page. After locating the Channel to which the photocell is terminated, click the *Function* button to choose the Analog Input as the type of device.

Figure 10.14. Analog Input Function
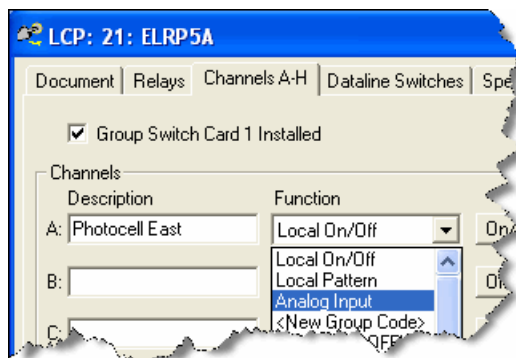
After choosing Analog Input, click the Options button to continue to the next stage of setup. You will need to select the type of Analog Input device. Watt Stopper offers a number of different photocell sensors for various applications. These devices will be presented in a selection list. Choose your particular device type.

Figure 10.15. Analog Input Device Options
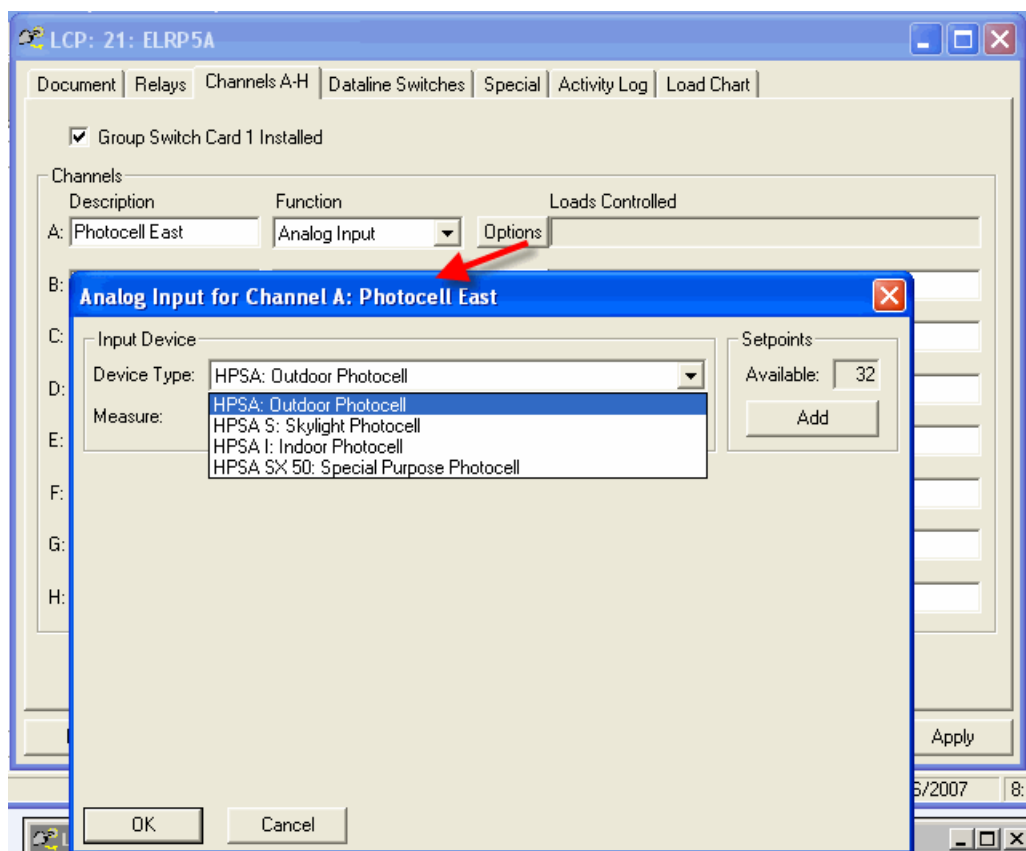
After selecting your input device, you will need to add a setpoint. Each analog input should have at least one setpoint to define its use, which determines the level at which the controlled group will go ON and OFF. A total of 32 setpoints may be added per panel, but one setpoint is typically used per input. After clicking Add, a default setpoint will be added based on the device type selected above. The only other required step is to select the group to be controlled, using the Group Code selector.

Figure 10.16. Analog Input Setpoint

Using a single setpoint normally requires no adjustments to trigger levels or time delays. The system will provide a default setpoint value and deadband range as well as delay and timers. An ON command to the selected group is sent when below the setpoint, and an OFF command is sent when above the setpoint (a small deadband is factored in). A short time delay is also used with the deadband to prevent false fast triggers if sensor readings fluctuate. By default, the default On time delay is much shorter than the default Off delay but this value is device dependent.

Advanced analog input programming allows for many more options for more complicated scenarios. The High and Low actions may be reversed or disabled depending on the need. Any setpoints (with in range of the analog device) can be used including minimizing the deadband. And the time delays may be customized from zero seconds up to 59 minutes and 59 seconds (nearly 1 hour).

Multiple setpoints can be programmed for each input which allows for very powerful lighting control scenarios to be easily handled. Each setpoint typically uses a unique Group Code however, they can be the same. For example, using unique Group Codes allows a photocell sensor to shed lights more aggressively as more daylight is available.

Note

The Unit of Measure is provided by the analog device database and indicates the type of reading from the analog device. The value is based on the DC voltage from the device. These values should be considered relative as they will vary based on sensor lens type and installation orientation.

Why would I want a Dataline Switch?

Dataline switches can have from 1 to 8 buttons on each device with built in status indicators. Unlike the Group Switch card Channels, a separate home run is not required for each switch station. Multiple dataline switches can exist on a single, 4 conductor cable, network bus thereby reducing the number of *home runs* required. Each button can be programmed to control an individual relay, a group of relays (ON/OFF or Pattern), or one of the Channels on the Group Switch Card. For Complete Control, you also have the option to have the button control a group that includes relays in multiple panels. Such a group can have a functional profile such as Master, Blink, Clean, Shed, Force On, and Force Off. The figure below shows Dataline Switches connection in such a network.

Figure 10.17. Dataline Switches with LI-CC network
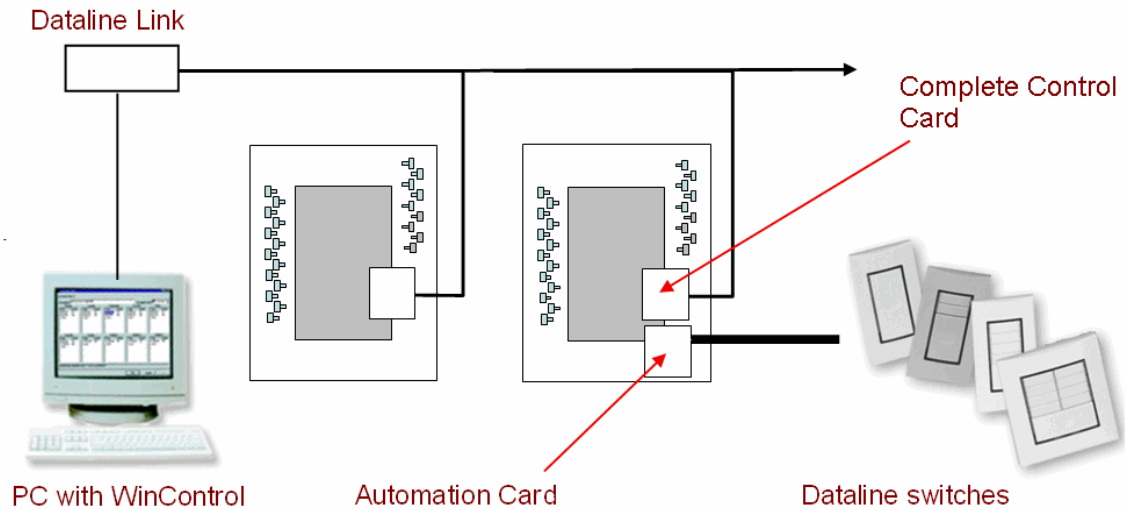
Documenting Panels - Dataline Switches

You can create dataline switches by clicking *New* on the Dataline Switches page. You may name each dataline switch according to your own needs; the name of the dataline switch *will appear on the riser* diagram.

Figure 10.18. Document Dataline Switch
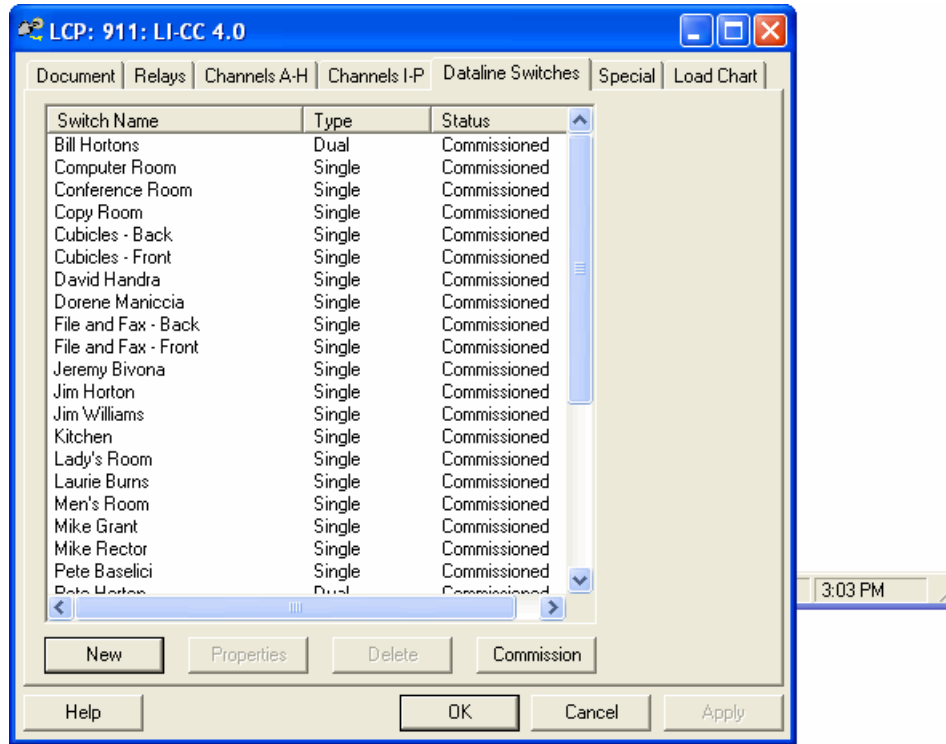
Once you create a dataline switch, specify the type of device. Available types include:

- One Button

- Two Button

- Four Button

- Eight Button

- Universal Switch Module

A picture of the device will appear (see Figure 10.19, "Document Dataline Switch") so you can see the physical configuration. Dataline Switches have DIP switches on the back for configuring the device. By selecting the functional profile for the device on the right, the display at the bottom right will show you how to set the DIP switches before the device is installed.

After selecting the basic documentation and setup for the dataline switch, you can click on the Program Dataline Switch tab (see the section called "Programming Dataline Switches") to setup the programming for the switch.

Figure 10.19. Document Dataline Switch
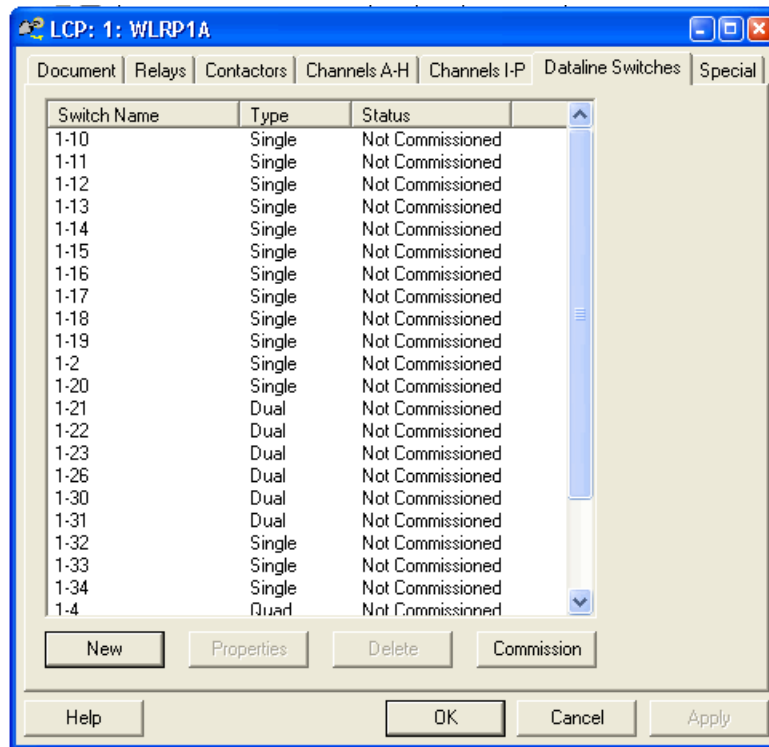
Chapter 11. Programming Basics

Certain programming options are only available only with systems equipped with the Complete Control (CC) card. These options are described below.

Group Codes (CC only)

Group Codes can be used to control relays in multiple panels. Once created, Group Codes can be assigned to buttons on Dataline Switches, as well as to Channels on Group Switch cards. Group Codes have an id number from 1-16000. Group Codes are setup with a function that defines how the control of the group is processed. These functions are:

Master

The master function (the default) will simply turn all associated relays ON/OFF. When a master group code is turned on, the associated relays come on, and when it is turned off, the relays turn off. No Blink warning is provided. If time delays are enabled, scheduled off or turned off by a Blink Warn switch, then turning this group code ON will start the time delay process specified for the relay. Master is typically used for occupant override switches.

Blink Warn

Relays programmed for this group code (and specified as Blink enabled in relay properties) will Blink when the group code is turned off, and then go off five minutes later. A group code setup as Blink Warn will simulate the schedule scenario. When this group code is turned ON, the relay(s) come on. An ON action on this group code will disable time delays, and an OFF action by this switch type will enable time delays for any subsequent overrides (just as a scheduled action would do so). The 5 minute Blink window is adjustable on a panel basis. Blink Warn is typically used when you want to emulate schedule behavior from an input, such as an external clock.

Cleaning

This group code is designed for cleaning crew operation. Relays controlled by a cleaning group code will go on when requested, but the group code cannot turn off relays if the area is in Normal Hours mode (aka occupied, or the relay is ON due to some other type of override actions). This function does initiate the count down of time delays, and will Blink before off (due to time delay) if Blink is enabled. The cleaning switch time delay defaults to the same as the relay time delay. The cleaning crew time delay may be specified separately for each LCP. Cleaning is typically used with switches that are centrally located and used by janitor services after hours.

Shed

The shed function is used for daylighting and demand shed scenarios. Relays associated with a shed group code will track the operation of the switch (photo-switch/demand contact) when the area is in Normal Hours mode. If an occupant overrides the shed off action, the shed function for his area is deactivated until the next day. The shed override feature may be disabled on a per panel basis using Special Features for the panel. Shed is typically used with daylighting or demand shed scenarios.

Force ON

This feature on a group code allows you to setup a switch that when turned ON will Force ON the relays in the group. When turned OFF, relays return to normal operation.   Force ON may be useful as an input from a security system to activate lights when an alarm is active.

Force OFF

This feature on a group code allows you to setup a switch that when turned ON will Force OFF the relays in the group   When turned OFF, relays return to normal operation. Force OFF may be useful to keep lights OFF without allowing an occupant override (such as Shed allows).

Any relay in a Force mode will not be allowed to change state from schedules or other programmable commands.

Figure 11.1. Program Group Codes
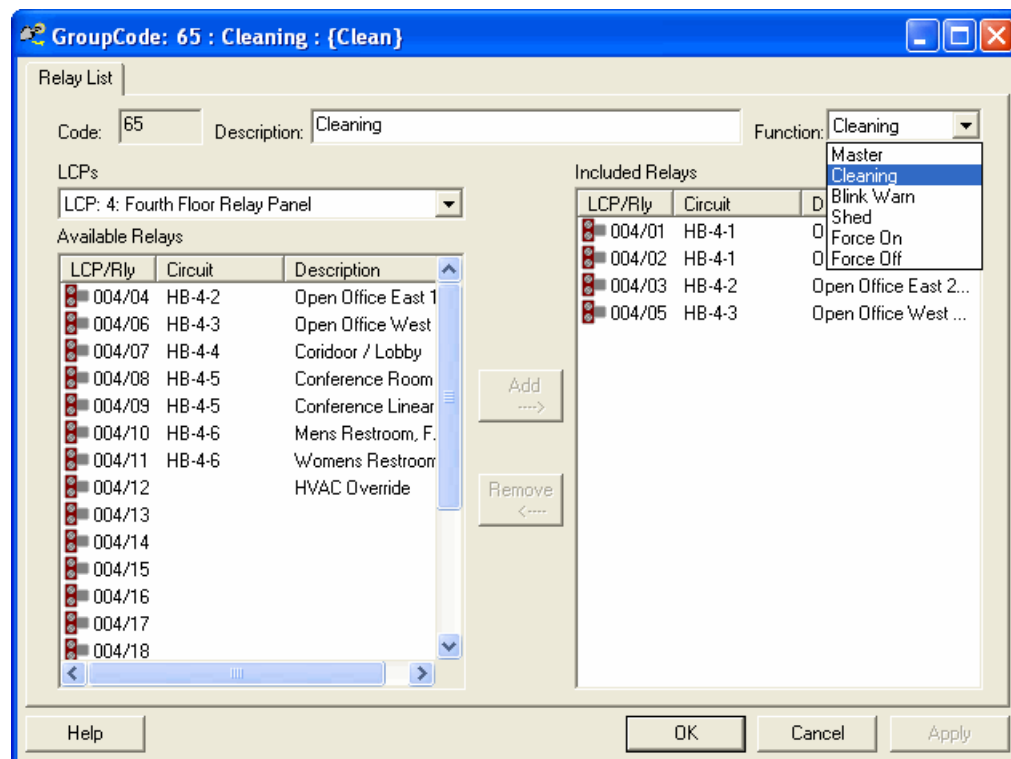
Phone Codes (CC only)

Phone Codes are code numbers that can be programmed in your Complete Control system. They are typically activated by use of a Telephone Override Device (HPHONE). Phone Codes allow you to group multiple relays and control the group with a single command. The Phone Code command is convenient to used for occupant overrides. In addition to commands via Telephone Override, any Phone Code can be activated via the Tree View portion of the WinControl software and from the available WinControl Graphics interface.

The Phone Code Create/Edit dialog allows you to view the list of all Phone Codes that have been programmed in the system. In addition to scrolling through the list of Phone Codes, Phone Codes can be Created, Edited, or Deleted using this dialog.

Individual Phone Codes can be created and edited by:

• Selecting **Program** on the menu bar, then

• Left click the mouse on the **System** command

• Left click the mouse on **Phone Codes** on the submenu

The Phone Code Create/Edit dialog is displayed (see Figure 11.2, "Phone Code Create/Edit Dialog")

Figure 11.2. Phone Code Create/Edit Dialog
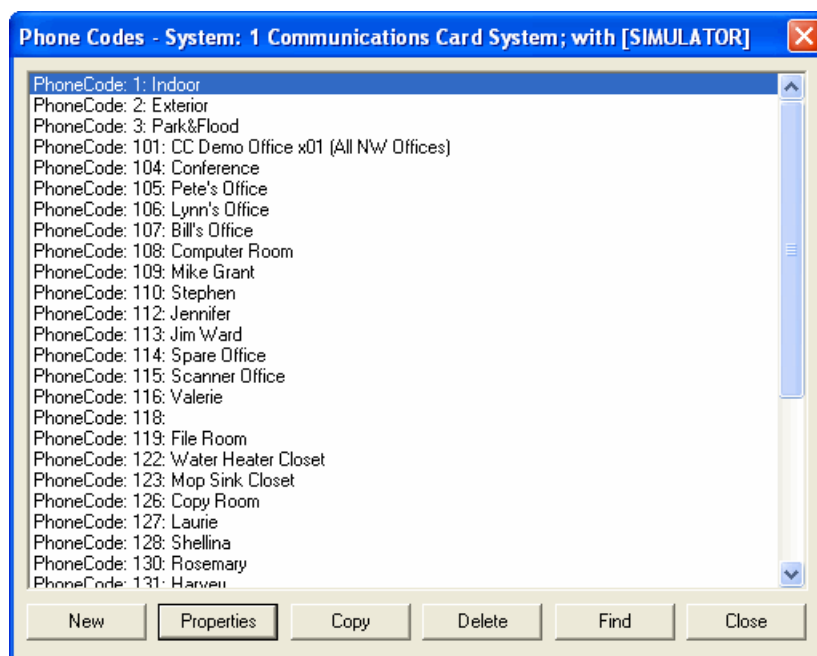
The Phone Code Dialog is a simple to use approach to creating or editing the phone codes. You can Create a new phone code doing the following:

• Left click the **New** button at the bottom-left portion of the dialog.

• Enter the new phone code in the specified 4-digit format.

Figure 11.3. Create a Phone Code
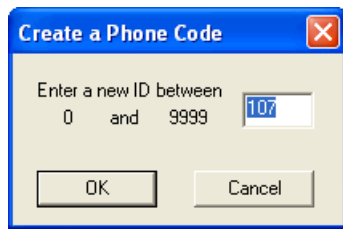
• Click OK

The Phone Code Edit dialog displays (see Figure 11.4, "Phone Code Editor"). Enter a Description by:

• Pointing to the box to the right of the Description label,

• Left click the mouse, and

• Typing in the text description.

Similarly, you may Edit a group code by:

• Pointing to one of the codes in the displayed list,

• Left click the mouse to select it,

• Point to the Edit command and left click.

You may also select one of the displayed codes, then double left click to instantly display the Group Code Create/Edit dialog.

The Phone Code Edit Dialog displays two lists. The list on the left side of the dialog includes all of the available relays not currently part of the Phone Code group. The list on the right is the list of relays included in the Phone Code group. WinControl offers you a number of options to simplify the maintenance of the list:

• You may select a relay to include from the left list by pointing to it, left click the mouse, then point to Add and left click to move the relay over to the Include list.

• Point to a relay on the Include list on the right, left click the mouse, then point to the Remove command and left click to move the relay over to the Available list.

• Click on the LCP/Relay, Circuit, or Description column to sort the list by the corresponding field.

• Click on a relay, or shift + left click to select multiple relays, then Drag to the other list.

Figure 11.4. Phone Code Editor
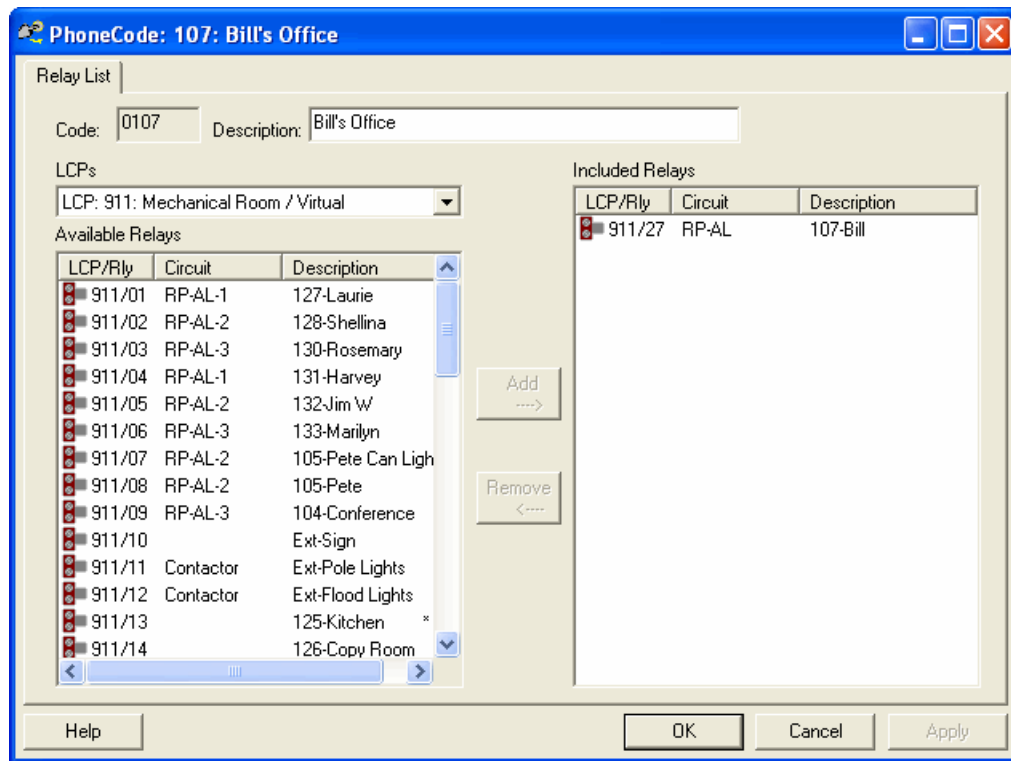
Click on a relay, or click using the Shift or Control keys to select multiple relays, and then Drag to the other list.

Common Area Relays (only available with CC option)

Common area relays function as follows:

- A relay designated as a "common area" is programmed with a list of relays that may include as few as one, or as many as all other relays in the panel. The list of relays consists of those corresponding to *Occupant Areas*. When any of the *Occupant Area* relays are turned ON, the Common Area relay will be turned ON if it is not ON already. The common area relay status will show the relay ON due to interlock.

- When all relays listed as Occupant Areas for the Common Area relay are turned OFF, then the Common Area relay will be turned OFF. If the Common Area relay is programmed with a time delay, then the time delay will be counted down as an Egress Delay. The Egress Delay provides the last occupant with common area lighting for the time specified. If *Blink* function is enabled for the Common Area relay, the relay will Blink at the end of the Egress time delay period, then turn Off five minutes later if no occupants turn ON their relays.

- To program a relay as a *Common Area* relay, move the cursor to the row of the desired relay, and select Common. Enter the list of relays to be designated as Occupant relays for this Common Area. Click OK to keep the modifications. You will then return to the standard relay program options. Note that the common area relay capability is only in LCP devices (HPCU48CC) with ROM version 1.4 or higher. You may use the Test Field Devices function to determine your ROM version in each LCP. If you program relays as common areas and the feature is not supported in your panel, you will see a warning message when transferring the programs.

If you program a relay as a Common Area Relay, you will:

- Usually not schedule the relay,

- Not program switches or phone codes to control the common area relay.

Instead, you should allow common area relays to be controlled automatically by the Occupant relays. Occupant relays, in turn, are activated by schedules, switches, and phone codes. *You must remember that if a Common Area relay is scheduled or overridden directly, it defeats the common area capability.*

A Common Area relay programmed with Blink Warn allows the relay to have an egress time delay.

Programming Dataline Switches

After selecting the basic documentation and setup for the dataline switch, you can click on the Program Dataline Switch tab to setup the programming for the switch.

Programming the buttons is very similar to the Channel inputs on the Group Switch card. In this case, you have a further option to select that a button may be paired with a particular Channel in the panel.

You may specify either directly ON/OFF control or Pattern Control of a list of relays. In either case, all relays must be in a single panel. Each channel may optionally be setup to control a Group Code (CC only). Complete control dataline switches are limited to directly controlling relays in the local panel. Group codes allow the ability to control relays in any number of panels in the system. Automation Card panels can directly control relays in any *one* panel or indirectly control any number of relays using a channel.

You may select the relays by clicking on the On/Off button, or by typing in the list of relays in the "Loads Controlled" field. The Description field is used to indicate the location or area of the switch connected to a given channel. Use the Function drop down list to select the On/Off or Pattern option, as well as to choose or create a Group Code (see the section called " Group Codes (CC only) "). You may also choose the Function drop down to make the button perform a function linked to a Channel in the panel.

Figure 11.5. Program Dataline Switches

Chapter 12. Specify System Options

The system options will vary based on whether the system you are designing supports a PC and software for programming and control. The options you choose when creating the site determine whether or not PC automation is supported and the choices you have here.

System Options: Complete Control

When specifying a Complete Control system, you may choose to include various features and front end options.

Figure 12.1. System Options - PC Automation
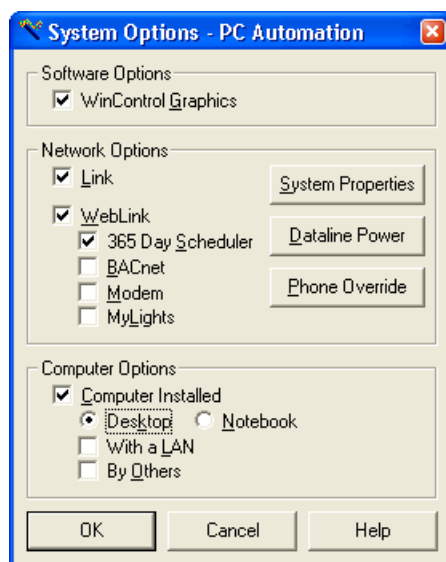
The options you select will be included on the Riser Diagram of the Lighting Control system. These features are as follows:

- **Software Options**

  By choosing this option the WinControl Graphics software package is added to WinControl to provide graphical floor plan display of the project. The graphical display has the ability to have real time updates and control.

- **Network Options**

  Link: A Link device is typically located near the PC to provide RS-232 connectivity from the PC to the Global Dataline of the Lighting Control system.

  WebLink: The WebLink device offers Internet based connectivity to the Lighting Control system. The WebLink acts as a type of router between the lighting control network and the customer's LAN. With WebLink in place, WinControl can communicate through the customers network rather than require a Link connection direct to the PC. In addition, the following WebLink options are available:

  - 365-day Scheduler

Allows schedule configurations from anywhere on the LAN using a standard web browser, with ability to setup repeating schedules, and ability to easily override schedules in advance.

- BACnet

  BACnet is an ASHRAE standard for connectivity to Building Automation Systems. Watt Stopper offers a BACnet add-on to WebLink that allows a BACnet capable BAS system to interface to the Lighting Control system.

- Modem

  Allows remove dialup access to WebLink over a phone line when a network connection is not available.

- MyLights

  Allows occupant control of lighting from their desktop PC, either through a web page or via the automatic desktop override feature.

- **Computer Options:** You may specify the type of computer front end that should be included on the Riser diagram.

System Options: Non Complete Control

Figure 12.2. System Options - Automation Card
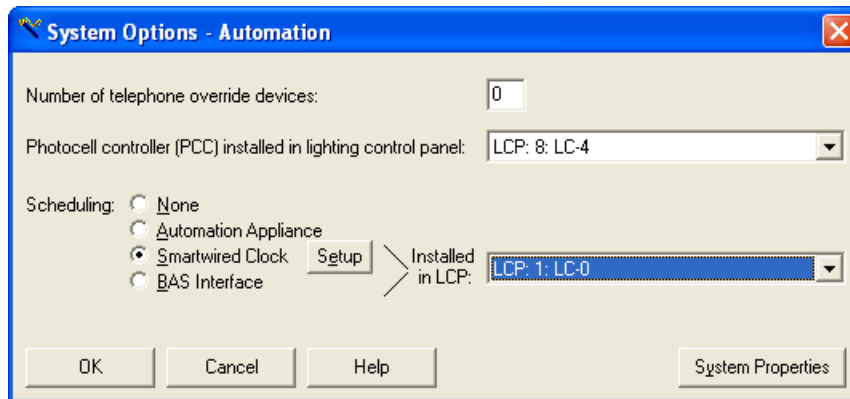
When specifying a system that is not using PC Automation, you may choose to include various control options. The options you select will be included on the Riser Diagram of the Lighting Control system. These features are as follows;

- **Telephone Override**

  The Automation Card option supports addition of telephone override devices. If you would like this included in your system, enter the number of such devices required.

- **Photocell Controller**

  A single Photocell Controller module is supported in this system. If you would like to include one, select that panel in which it will be installed.

- **Scheduling**
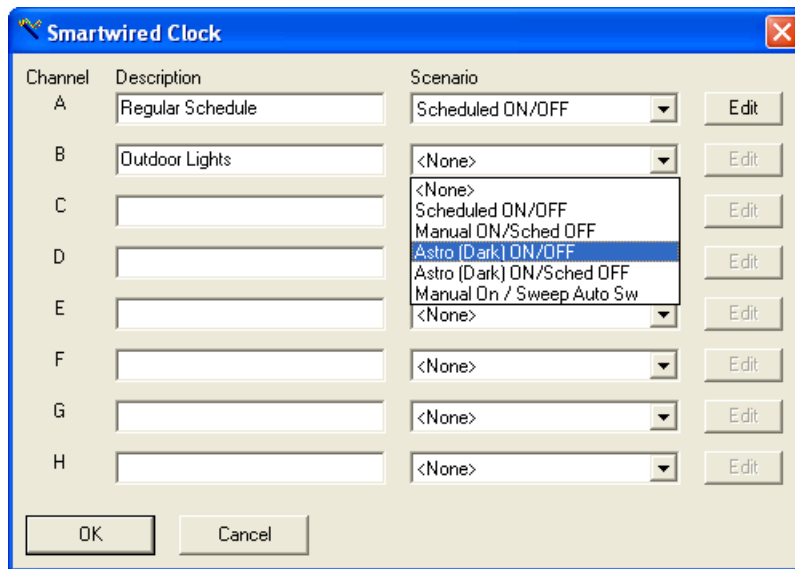
  Because a PC is not used to setup and configure scheduling, you will probably want to select a method for scheduling the loads in the system. Your options are as follows:

  None: You may choose none if you want to utilize the Group Switch channel inputs for grouping control, which could be connected to an external / third party time clock device.

  Smart Wired Clock: If you would like a clock and programming tool that allows you to setup time of day scheduling for one or more panels, choose the Smart Wired Clock option. You should select the panel in which it will be installed; only one clock is necessary for the system.

  You may use the "Setup" button to document the schedules in the Smart Wired Clock, however, the schedule data must be entered manually into the device (see Figure 12.4, "Non PC Automation Schedule Setup"). A Report is available to print out your schedule in order to simplify field programming of the clock.
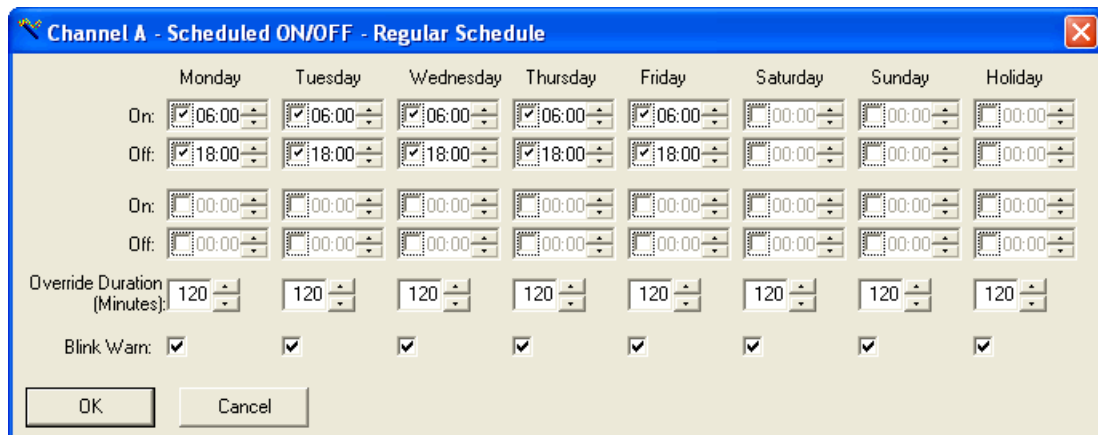
  BAS Interface: If you plan to interface to system to an external building automation system, you will probably want to select the BAS Interface, which supports 8 global channels of input control. Only one BAS interface is necessary / supported.

Figure 12.3. Non PC Automation SWS Clock

Figure 12.4. Non PC Automation Schedule Setup

Chapter 13. Generate DXF Diagram

Figure 13.1. Generate DXF Diagram
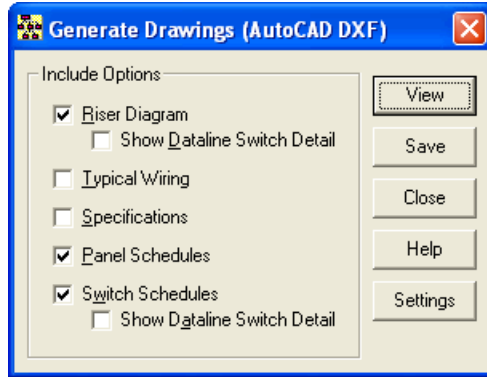
When you have finished specifying the requirements of your Lighting Control system; you are now ready to generate drawings that can be used for bid documents. Click the "Generate DXF Diagram" option.

You may choose to include all options on the drawings, or selectively generate drawings one option at a time. WinControl Designer is provided with a free DXF viewer program so that you can see the drawings generated. If you would like to Print or Edit these drawings, you will need to provide your own CAD program such as AutoCAD for this purpose.

Once the file is generated, the drawing viewer will automatically be launched to display the drawing. If you want to use your own CAD package rather than the basic viewer included with WinControl Designer, use the Settings button to select to use your PC's default program for viewing CAD DXF files. If you want to select a specific name and location for the DXF file generated, click the "Save" button rather than View.

If you don't have AutoCAD or a compatible drawing viewer capable of viewing DXF files, see the section called "Viewing DXF Files" for available free viewers. These tools can display the DXF files generated by WinControl Designer. Note these third party sites are not affiliated with Watt Stopper/Legrand.

Examples of various portions of the drawings based on the above selections are shown in the sections that follow...

- Specifications

- Typical Wiring

- Riser Diagram

- Panel Schedules

- Switch Schedules

Settings allows you configure additional options, including the viewer.

DXF-Specifications

Figure 13.2. DXF Specifications
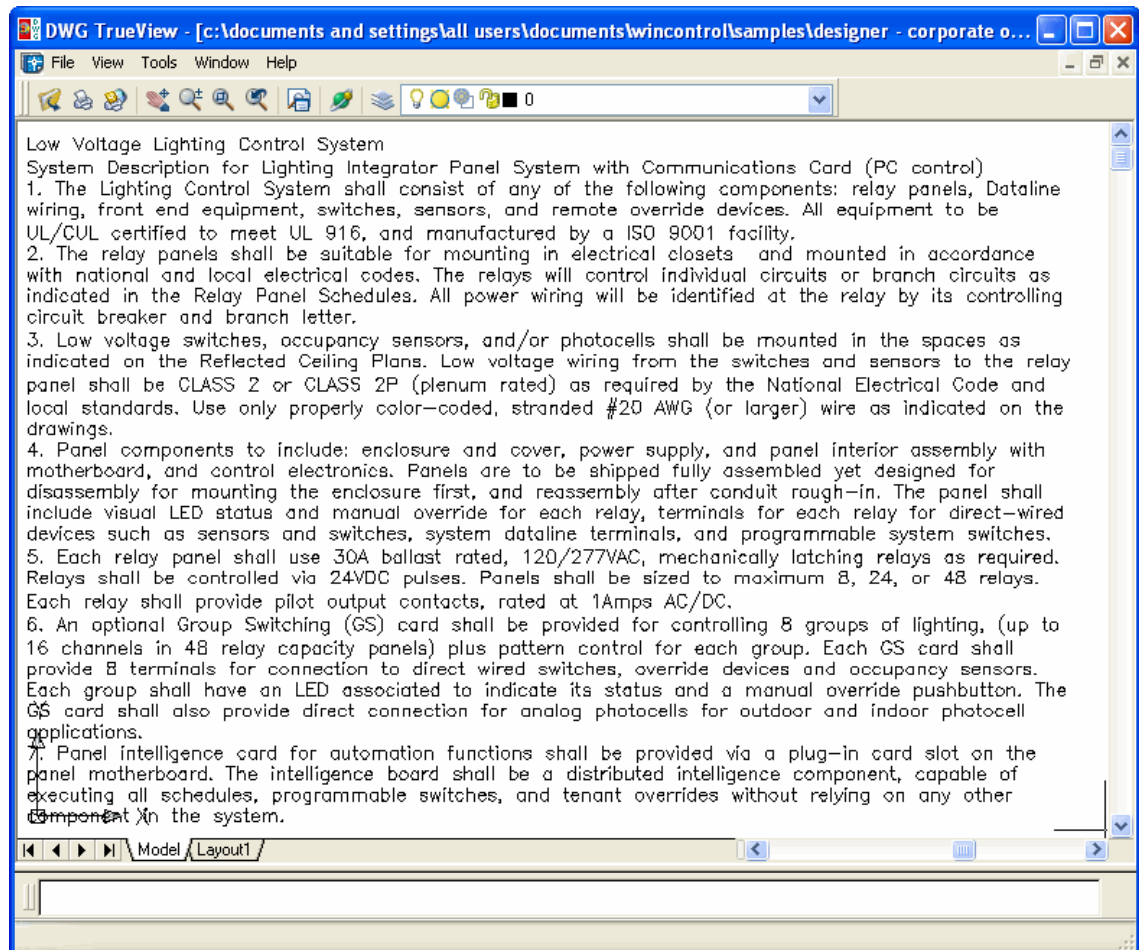
DXF-Typical Wiring Details

Figure 13.3. DXF Typical Wiring Details
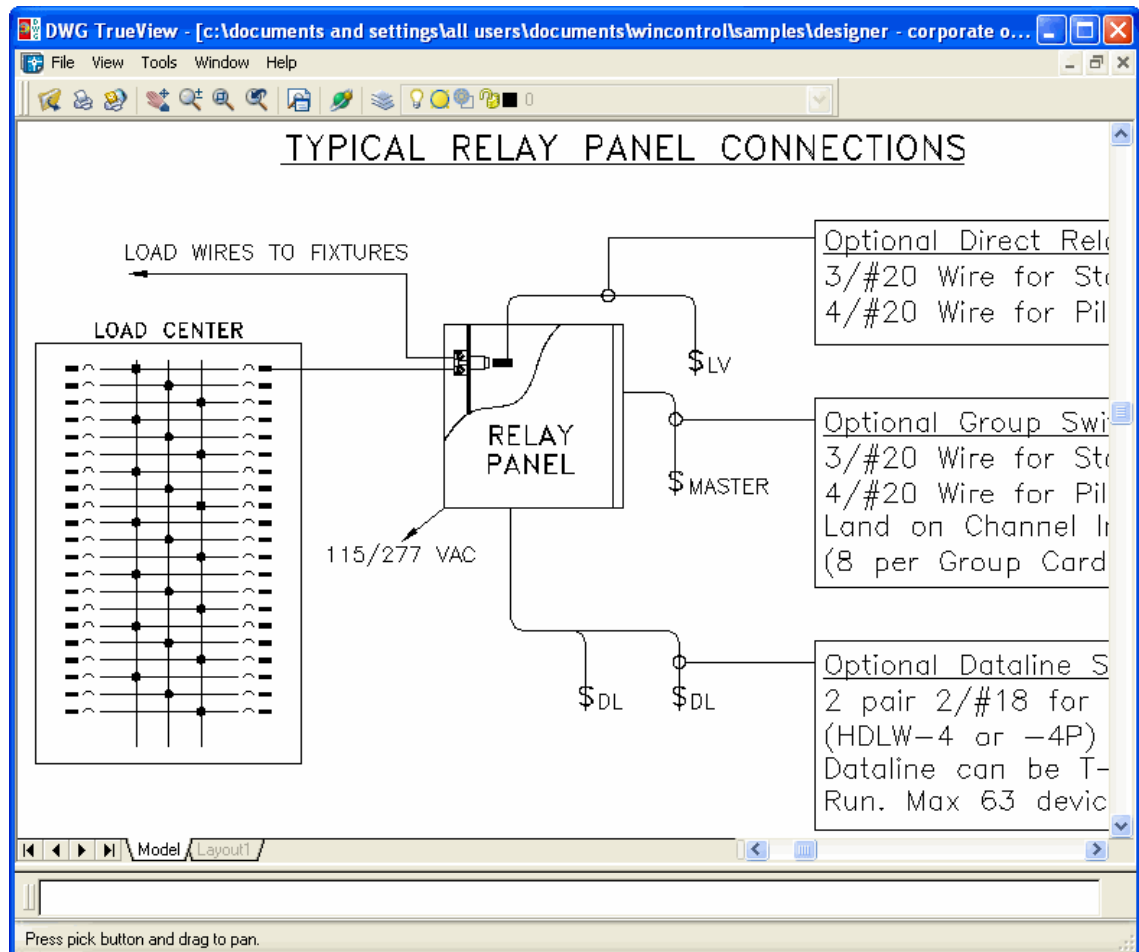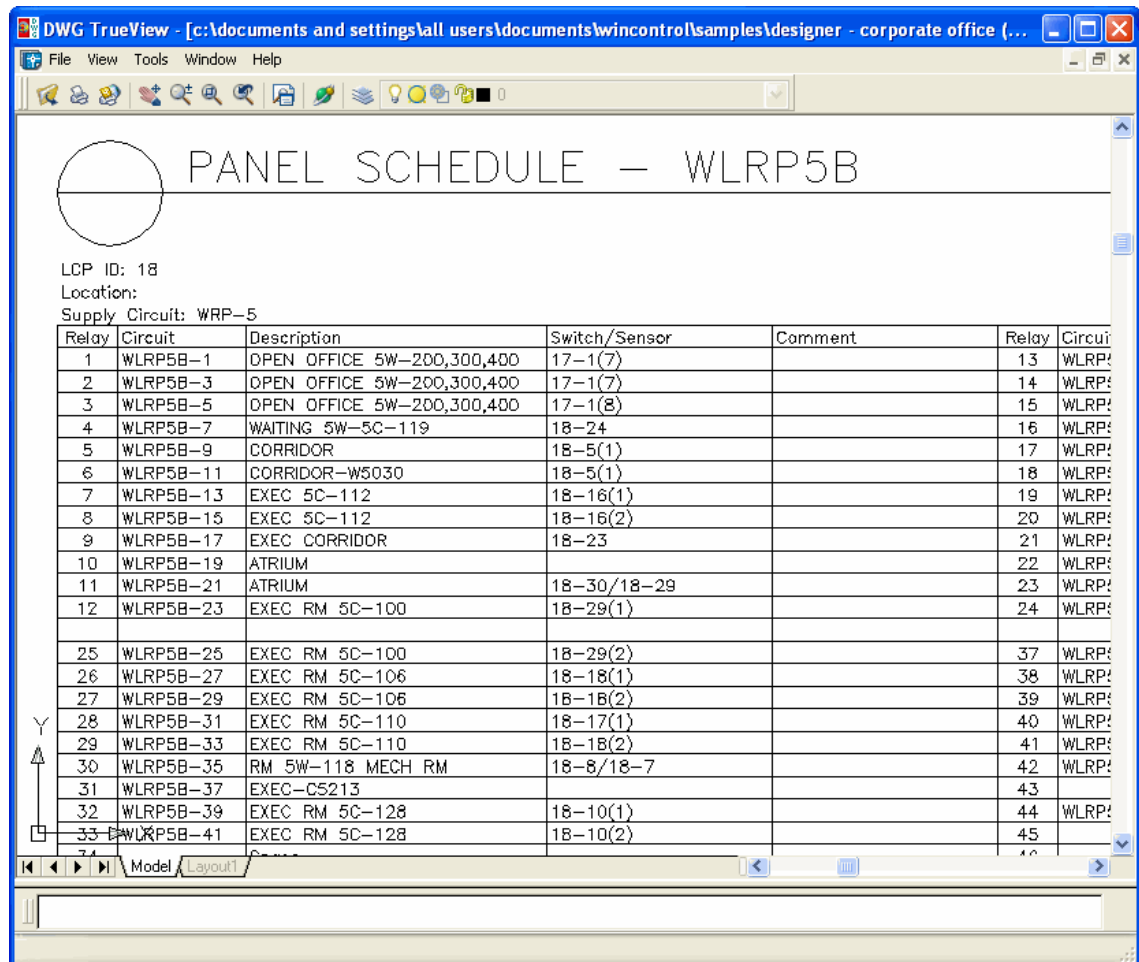
DXF-Riser Diagram

Figure 13.4. DXF Riser Diagram
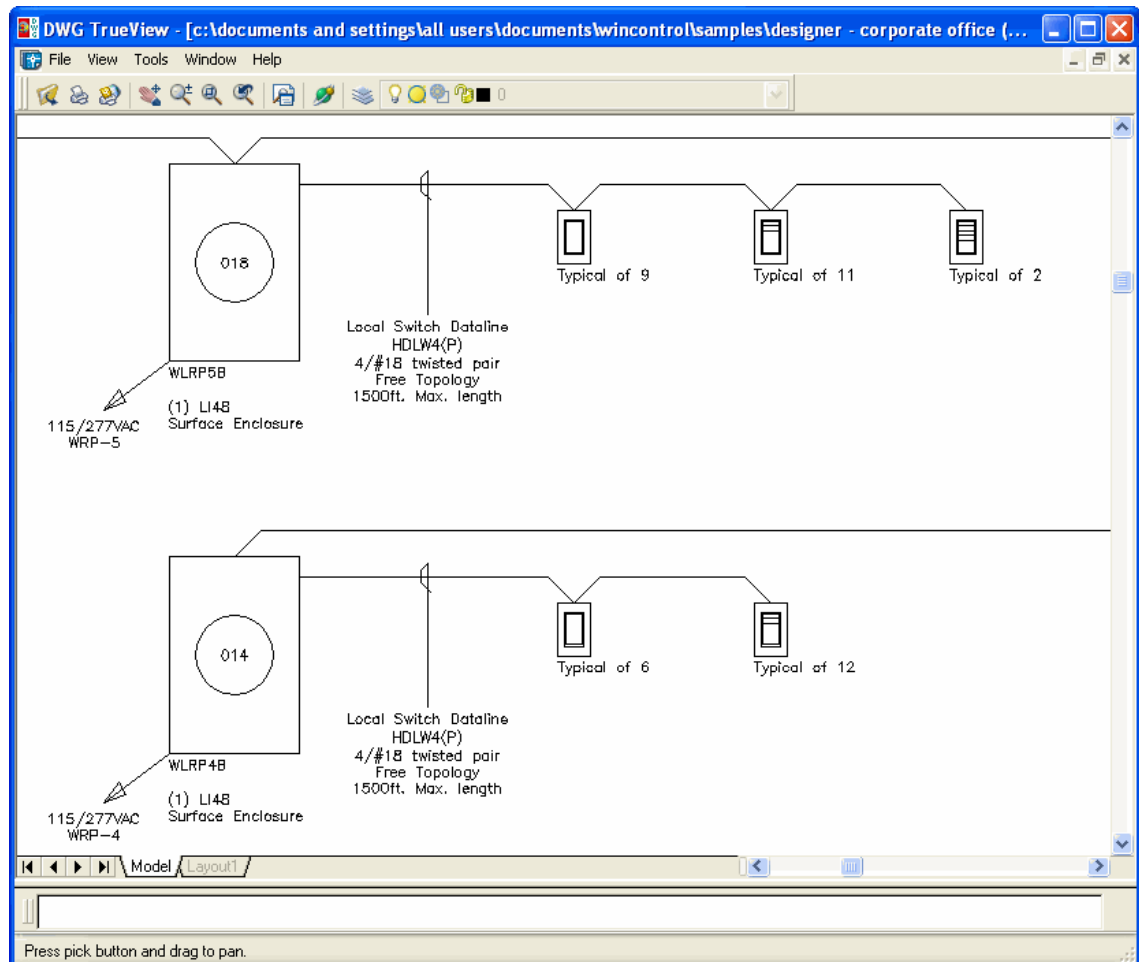
DXF-Panel Schedules

Figure 13.5. DXF Panel Schedules

Viewing DXF Files

DXF Files are CAD format files that are compatible with AutoCAD or a compatible drawing package.

Please visit our WinControl Designer web page at http://www.wattstopper.com/designer for the latest information on available CAD viewing tools.

WinControl / Designer does not come with a CAD program or CAD viewing capabilities. We expect that you will already have a CAD package on your computer; however, if you don't, you have several free options...

- eDrawings [http://www.solidworks.com/pages/products/edrawings/eDrawings.html] DXF/DWG viewer/printer from Solidworks [http://www.solidworks.com] (approx 6MB).

- Autodesk DWF Viewer [http://www.autodesk.com/dwfviewer-download] DXF/DWG/DWF viewer/printer from AutoDesk [http://www.autodesk.com] (caution - approx 110MB).

- Free DWG Viewer [http://www.infograph.com/products/dwgviewer] DXF/DWG/DWF viewer only from Informative Graphics [http://www.infograph.com] (approx 10MB). Be aware this *free* program expires after a period of time, and **does not allow printing. See the Brava desktop below for a version with printing features.**

All of these tools can display the DXF files generated by WinControl Designer.

Additional fee based options available (many more CAD solutions are available, these are just a few options):

- Purchase the **Brava! Desktop (DWG Version)** program from Informative Graphics www.infograph.com/products/dwgviewer [http://www.infograph.com/products/dwgviewer]. This tool can display **and Print** the DXF files generated by WinControl Designer. This program was **$29** for download as of May 2005 (a 1 year subscription).

- Purchase IntelliCAD from CADopia. Visit the CADopia website at www.cadopia.com [http://www.cadopia.com] for pricing.

- Purchase AutoCAD or AutoCADLT from AutoDesk. These programs allow full featured CAD file editing. Visit the AutoDesk web site at www.autodesk.com [http://www.autodesk.com] for more information.

  ## Note

  These sites are not affiliated with Watt Stopper / Legrand.

Chapter 14. Reporting Options

WinControl Designer provides a number of reports that allow you to review your documentation and programming in a number of consolidated formats. In this section, we provide examples of many of the most common reports. Reports are generated in a format known as HTML, which is capable of being displayed by a standard web browser, typically Microsoft's Internet Explorer. When generating a report, WinControl will save the report as an HTML formatted file, and then automatically have it displayed using your default web browser.

The View Menu provides the reports option with a sub-menu listing the primary reports available from WinControl. Other reports are available, but generally used less frequently or with optional software. The process of generating most of the reports involves first selecting a report from the menu, then selecting the devices to be included in the report. For most reports, you can choose a single device, all devices, or a particular combination of devices. To select all devices, simply click on the "Do All" button on the device selection dialog. To select a single device, just click once with the left mouse button, and then click OK. In addition, if you want a particular selection of multiple devices, you can hold down the Shift key while selecting a device, and then click another device while holding down the shift key. This will select all devices in the range selected. To pick a non-connective list, hold down the Control key while selecting devices. Each device clicked (selected) will be included. Press OK when you have completed your selection and WinControl will begin processing the report.

When generated, reports are stored in the My Documents folder (unless you have changed your WinControl Configuration. A summary of the most commonly used reports follows. The reports shown in the examples are from various sample sites included in the standard WinControl installation.

Figure 14.1. Reports menu
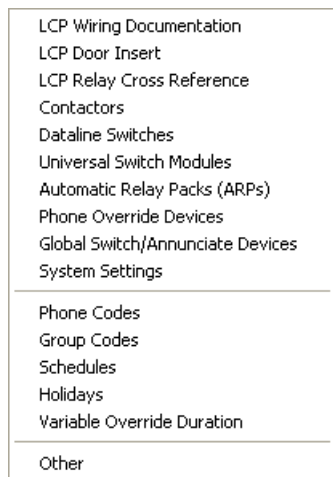
LCP Wiring Documentation

Figure 14.2. LCP Wiring Documentation

LCP Wiring Documentation
Corporate Headquarters - Communications Card System

Panel ID		Name		Location		Type	Interior/Enclosure	Power Supply	Circuit		
1		WLRP1A				LI	48/48 Surface	115/277	WRP-1		

Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch
1	WLRP1A-1	LTG-CORRIDOR W0034	1-7/1-32	13	WLRP1A-2	LTG-PREF W0425	1-14/1-13
2		SPARE	1-2	14	WLRP1A-4	LTG-PREF W0325	1-16/1-15
3	WLRP1A-5	LTG-TELECOM W0003		15	WLRP1A-6	LTG-PREF W0225	1-18/1-17
4	WLRP1A-7	LTG-MECH MEZZ	1-33	16	WLRP1A-8	LTG-TRAINING W0100	1-23(1)/1-22(1)
5	WLRP1A-9	LTG-MECH RM	1-34	17	WLRP1A-10	LTG-TRAINING W0100	1-23(2)/1-17(2)
6	WLRP1A-11	LTG-CORRIDOR W0033	1-8	18		South Parking via Contactor	
7	WLRP1A-13	LTG-PREF W0525	1-12/1-11	19		North Parking via Contactor	
8	WLRP1A-15	LTG-DOCK		20		SPARE	
9	WLRP1A-17	LTG-COMP TRG W0600	1-10	21		SPARE	
10	WLRP1A-19	LTG-COMP TRG W0600	1-9(1)	22		SPARE	
11	WLRP1A-21	LTG-COMP TRG W0600	1-9(2)	23		SPARE	
12	WLRP1A-23	LTG-COMP TRG W0600	1-9(3)	24	WLRP1A-24	LTG-MAINTENANCE	1-5

Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch
25	WLRP1A-25	LTG-CONF W0700	1-4(1)	37	WLRP1A-26	LTG-TRAIING W0100	1-21(1)
26	WLRP1A-27	LTG-CONF W0700	1-4(2)	38		SPARE	
27	WLRP1A-29	LTG-CONF W0700	1-4(3)	39	WLRP1A-30	LTG-EXTERIOR	
28	WLRP1A-31	LTG-COMP TRG W0500	1-31(1)/1-30(1)	40	WLRP1A-32	LTG-PREFUN W0125	1-19/1-20
29	WLRP1A-33	LTG-COMP TRG W0500	1-31(2)/1-30(2)	41	**Space**	Space	
30	WLRP1A-35	LOADING DOCK	1-26(1)	42	**Space**	Space	
31	WLRP1A-37	LOADING DOCK		43	**Space**	Space	
32	WLRP1A-39	WEST CORRIDOR	1-26(2)	44	**Space**	Space	
33				45			
34		No Driver Card		46		No Driver Card	
35				47			
36				48			

Group Switch Card 1				Group Switch Card 2			
Channel	Function	Description	Loads Controlled	Channel	Function	Description	Loads Controlled
A	On/Off	Loading Dock	30, 31	I	1909: Master	Executive Room 1	LCP 19: 9
B	On/Off	Training	16, 17, 37	J	1910: Master	Executive Room 2	LCP 19: 10
C	Unused			K	1911: Master	Executive Room 3	LCP 19: 11
D	Unused			L	1917: Master	Executive Room 4	LCP 19: 17
E	On/Off	All Outside	30, 31, 39	M	Unused		
F	Unused			N	Unused		
G	Unused			O	Pattern	Conf Full Lighting	On: 17 / Off: 16
H	On/Off	Corridors	1, 6, 32	P	Pattern	Conf Video Lighting	On: 16 / Off: 17

LCP Relay Cross Reference

Figure 14.3. LCP Relay Cross Reference

LCP Relay Cross Reference
Demo Sampler with Graphics and Trends - Communications Card System

Panel ID	Name		Location	Type	Interior/Enclosure	Power Supply	Circuit
1	Ground Floor Relay Panel		Ground Floor	CC	24/24 Surface	115/277	HB-1-15

Rly	Circuit	Description	Settings	Timeout	Schedule	References		
1	HB-1-1	Office 101	Blink	00:10	1 CC Demo - Office Schedule	**Phone Codes**		
						101		CC Demo Office x01 (All NW Offices)
						Group Codes		
						17	Clean	Cleaning
						18	Blink	Blink Warn Floor On Work/Depart
						19	Force On	Force All Relays ON All Floors
2	HB-1-1	Office 102	Blink	00:10	1 CC Demo - Office Schedule	**Group Codes**		
						17	Clean	Cleaning
						18	Blink	Blink Warn Floor On Work/Depart
						19	Force On	Force All Relays ON All Floors
3	HB-1-2	Open Office East 2/3 Lighting	Blink		1 CC Demo - Office Schedule	**Group Codes**		
						17	Clean	Cleaning
						18	Blink	Blink Warn Floor On Work/Depart
						19	Force On	Force All Relays ON All Floors
4	HB-1-2	Open Office East 1/3 Lighting	Blink		1 CC Demo - Office Schedule	**Group Codes**		
						18	Blink	Blink Warn Floor On Work/Depart
						19	Force On	Force All Relays ON All Floors
						84	Shed	East Photocell
5	HB-1-3	Open Office West 2/3 Lighting	Blink		1 CC Demo - Office Schedule	**Group Codes**		
						17	Clean	Cleaning
						18	Blink	Blink Warn Floor On Work/Depart
						19	Force On	Force All Relays ON All Floors
6	HB-1-3	Open Office West 1/3 Lighting	Blink		1 CC Demo - Office Schedule	**Group Codes**		
						18	Blink	Blink Warn Floor On Work/Depart
						19	Force On	Force All Relays ON All Floors
						83	Shed	West Photocell
7	HB-1-4	Coridoor / Lobby		00:03		**Group Codes**		
						19	Force On	Force All Relays ON All Floors
8	HB-1-5	Conference Room Downlights	Blink			**Group Codes**		
						18	Blink	Blink Warn Floor On Work/Depart

Dataline Switches

Figure 14.4. Dataline Switches

Dataline Switches
Corporate Headquarters - Communications Card System

Panel ID	Name	Location	Type	Interior/Enclosure	Power Supply	Circuit
1	WLRP1A		LI	48/48 Surface	115/277	WRP-1

Total Dataline Switches: 26

Station Name: 1-10

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-COMP TRG W0600	LCP 1: 9

Station Name: 1-11

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0525	LCP 1: 7

Station Name: 1-12

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0525	LCP 1: 7

Station Name: 1-13

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0425	LCP 1: 13

Station Name: 1-14

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0425	LCP 1: 13

Station Name: 1-15

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0325	LCP 1: 14

Station Name: 1-16

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0325	LCP 1: 14

Station Name: 1-17

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0225	LCP 1: 15

Station Name: 1-18

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREF W0225	LCP 1: 15

Station Name: 1-19

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREFUN W0125	LCP 1: 40

Station Name: 1-2

Button	Function	Label	Description	Loads Controlled
1	On/Off		SPARE	LCP 1: 2

Station Name: 1-20

Button	Function	Label	Description	Loads Controlled
1	On/Off		LTG-PREFUN W0125	LCP 1: 40

Station Name: 1-21

Group Codes (CC Only)

Figure 14.5. Group Codes

Switch Codes
Corporate Headquarters - Communications Card System

Group Code: 601
Description: OPEN OFFICE 2W-200, 300, 400
Function: Master
Relay Count: 1
        Relay Panel: LCP 6: WLRP2B
                Relay 6-1: OPEN OFFICE 2W-200,300,400 {WLRP2B-1} 5-1(1)

Group Code: 602
Description: OPEN OFFICE 2W-200, 300, 400
Function: Master
Relay Count: 1
        Relay Panel: LCP 6: WLRP2B
                Relay 6-2: OPEN OFFICE 2W-200,300,400 {WLRP2B-3} 5-2(2)

Group Code: 603
Description: OPEN OFFICE 2W-200, 300, 400
Function: Master
Relay Count: 1
        Relay Panel: LCP 6: WLRP2B
                Relay 6-3: OPEN OFFICE 2W-200,300,400 {WLRP2B-5} 5-2(3)

Group Code: 722
Description: Open Office 2E-700, 800, 900
Function: Master
Relay Count: 1
        Relay Panel: LCP 7: ELRP2B
                Relay 7-22: OPEN OFFICE 2E-700,800,900 {ELRP2B-20} 8-1(1)

Group Code: 723
Description: OPEN OFFICE 2E-700, 800, 900
Function: Master
Relay Count: 1
        Relay Panel: LCP 7: ELRP2B
                Relay 7-23: OPEN OFFICE 2E-700,800,900 {ELRP2B-22} 8-1(2)

Group Code: 724
Description: OPEN OFFICE 2E-700, 800, 900
Function: Master
Relay Count: 1
        Relay Panel: LCP 7: ELRP2B
                Relay 7-24: OPEN OFFICE 2E-700,800,900 {ELRP2B-24} 8-1(3)

Schedules

Figure 14.6. Schedules

Schedule Documentation
Demo Sampler with Graphics and Trends - Communications Card System

Schedule	Description								Occupancy Time
1	CC Demo - Office Schedule								03:01

Monday		Tuesday		Wednesday		Thursday		Friday	
18:00	Off	18:00	Off	18:00	Off	18:00	Off	18:00	Off

Saturday		Sunday		Holiday 1		Holiday 2		Holiday 3	
12:00	Off	12:00	Off	12:00	Off	12:00	Off	12:00	Off

Schedule	Description								Occupancy Time
2	CC Demo - Signage / Half Parking								03:01

Monday		Tuesday		Wednesday		Thursday		Friday	
22:00	Off	22:00	Off	22:00	Off	22:00	Off	22:00	Off
Sunset	On	Sunset	On	Sunset	On	Sunset	On	Sunset	On

Saturday		Sunday		Holiday 1		Holiday 2		Holiday 3	
22:00	Off	22:00	Off	22:00	Off	22:00	Off	22:00	Off

Schedule	Description								Occupancy Time
13	M-Normal Lighting Ext								03:01

Monday		Tuesday		Wednesday		Thursday		Friday	
18:00	Off	18:00	Off	18:00	Off	18:00	Off	18:00	Off

Saturday		Sunday		Holiday 1		Holiday 2		Holiday 3	
17:30	Off	18:00	Off	18:00	Off	18:00	Off	01:00	On
								14:00	Off

Schedule	Description								Occupancy Time
14	N-Alternate Short								03:01

Monday		Tuesday		Wednesday		Thursday		Friday	
17:30	Off	17:30	Off	17:30	Off	17:30	Off	17:30	Off

Saturday		Sunday		Holiday 1		Holiday 2		Holiday 3	
17:30	Off	17:30	Off	17:30	Off	17:30	Off	17:30	Off

Schedule	Description								Occupancy Time
15	O-Outdoor Floods								03:01

Monday	Tuesday	Wednesday	Thursday	Friday

Contactors

Figure 14.7. Contactors

Contactors
Corporate Headquarters - Communications Card System

Panel ID	Name	Location	Type	Interior/Enclosure	Power Supply	Circuit
1	WLRP1A		LI	48/48 Surface	115/277	WRP-1

Coil Voltage: 277

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 1-18: South Parking via Contactor	1		Zone 1
				2		Zone 2
				3		Zone 3
				4		Zone 4

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 1-19: North Parking via Contactor	1		Zone 7
				2		Zone 8
				3		Zone 9
				4		Zone 10

Panel ID	Name	Location	Type	Interior/Enclosure	Power Supply	Circuit
2	WLRP1B		LI	48/48 Surface	115/277	WRP-1

Coil Voltage: 277

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 2-29: East Parking via Contactor	1		Zone 5
				2		Zone 6
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 2-30: Executive Parking via Contactor	1		Upper Area
				2		Lower Area
				3		
				4		

Chapter 15. WinControl Change History

Version 3.11 – 31 October 2007

1. Update: This version (or later) of WinControl MUST be used with LI-CC firmware version 19 or higher. This update may effect occupancy sensor and ARP behavior.

2. Fixed: New panels, by default, support Automatic Relay Packs (ARPs). Once the firmware version is discovered and is not new enough to support ARPs then the ARP checkbox is disabled. If the box was enabled prior to discovering the firmware version is not recent enough then the ARP checkbox text becomes RED indicating an invalid setting. Clearing it will also reset ARP relays.

3. Fixed: Spurious feedback of an error message when using Firefox to view reports. The error message has been removed. Firefox can take longer than expected to launch depending on plugins installed.

4. Fixed: The older wiring schedule card report for legacy panels was no longer working. This report has been fixed.

Version 3.10 – 21 September 2007

1. New: support for Automatic Relay Packs (ARPs) has been added to WinControl. Support includes control, status and documentation plus a new report. See the updated documentation for more information on ARP support, including programming restrictions.

2. New: relay panel documentation report for panel door sleeve. Best to print in landscape mode.

3. Improved: better support for multi-system site files. A default system is selected at startup but, when needed, a prompt is provided to select the current system.

4. Improved: Astro schedules are now disabled if location and time zone are not set.

5. Updated: The device selection dialog box that normally comes up when running reports and other operations now automatically selects and performs the operation on the device if it is the only one device is in the list.

6. Fixed: Panel coping with Dataline switches did not correctly copy panel IDs if the parent panel matched the programmed panel ID for a button. For CC, the panel ID is always the parent ID and they are now always reset to the new panel ID.

7. Fixed: BACnet documentation support has been added for RTR32 type panels.

8. Updated: The system summary report has been updated to support more system wide information.

9. Updated: report engine code has been updated to be more reliable for HTML based reports.

10. Fixed: now correctly hiding analog input status while running in Designer.

Version 3.02 – 10 April 2007

1. Updated: Due to network security issues, temporary files are now saved in the site folder of the LI file.

2. Added: "System Options" to the "Initialize" menu

3. Added: WinControl file association is now automatically enabled during installation.

4. Updated Documentation:

- BACnet - added documentation support for BACnet with WebLink

- Security - new section on security in Windows

- Glossary - list of common Watt Stopper/Legrand lighting control terms and meanings

5. Updated: Panel copy now asks if Dataline Switch neuron IDs should also be copied (usually only needed when renumbering panels).

6. Updated: Internal MSXML files are now using the latest DLLs from Microsoft. This was causing a Windows Update message after installing WinControl.

Version 3.01 – 2 March 2007

1. Updated: Documentation for both WinControl and Designer including more context sensitive help from some new property pages.

Version 3.00 – 5 February 2007

1. Added: Support for Photocells and Analog Inputs for LI-CC panels including up to 32 setpoints per panel and several Photocell predefined

2. Added: Support for BACnet configuration for WebLink 2.0 including default BACnet IDs and MAC addresses for supported devices. To enable BACnet support for LI-CC, open the WinControl Helper and select "Specify System Options". The BACnet page can be accessed by right clicking on the system device and selecting "BACnet".

3. Added: New support for Occupancy Sensor behavior for LI-CC relays. Options include Auto On/Off, On Only, Off Only and Disabled for both normal hours (scheduled) and after hours.

4. Fixed: Several bugs testing with Microsoft Windows Vista Business Edition have been fixed. Testing will continue with Vista Business and XP Professional SP2.

5. Fixed: Running as restricted user has been improved. Administrative account only required for installation and licensing.

6. Fixed: Daylight Saving Time wasn't showing the correct dates for 2007 on the System property page. It did use the correct dates when programming, however.

7. Updated: System summary report to include analog input documentation and programming

8. Updated: New Site Wizard hitting 'Finish' now takes user to last wizard page instead of immediately to the 'Job Info and Contacts' page.

9. Updated: Added new 'custom' reports to better support paging. To access these new reports, select 'Other' from the report menu and look for files with "Paged" in the name.

Chapter 16. Conclusion

WinControl Designer allows you to design and document a system of lighting controls for a new facility, taking advantage of the specific product features necessary to meet the owner's needs and desires.

By utilizing WinControl Designer, the steps and tasks necessary to generate drawings for bid as well as for construction is greatly simplified. The data stored by WinControl Designer can be carried forward into the project build stages as well, and if the customer has selected to use a front end PC, then the WinControl Designer information becomes the same data used in the full WinControl environment for commissioning, testing, programming and customer monitor and control. The CAD format drawings can easily be integrated into the designer's own drawings in AutoCAD or other DXF compatible environment.

By providing the framework for setting up the programming of the system, you are assured that the components you select can be programmed for the features required. Hard copy documentation is generated which can be used by the contractor or startup technician for applications where is a PC front end is not of interest or applicable.

Please visit our WinControl Designer web page at http://www.wattstopper.com/designer for the latest news and information and updates for WinControl Designer.

Index