Help Index

Introduction to XtenWIN

XtenWIN consists of several programs that help you manage your X10 devices throughout your home, via a computer interface to a CP-290 X10 programmable controller. The CP-290 controller can be programmed with up to 256 different events that can be set to control devices at different times of the day, and different days of the week.

You must define each of your X10 devices to XtenWIN by specifying the HouseCode, one or more X10 Modules within that HouseCode, and a description of the XtenWIN DEVICE. You can save your definitions to disk in one or more unique files. You may then switch among DEVICE definition files in each of the XtenWIN programs.

You also use XtenWIN to define one or more sets of X10 commands, or EVENTs. Each EVENT defines a function (ON/OFF/DIM) to be performed upon one of the previously defined XtenWIN DEVICEs (remember, a DEVICE can consist of one *or more* Modules within a single HouseCode). An EVENT definition also contains the time of day, and which days of the week the command is to be executed. This time can optionally be varied randomly each day within a 60 minute interval, so that it is not obvious that your lights are being controlled electronically (security feature, for when you are away from home).

You can save sets of EVENTs to one or more disk files. Each file may represent a different schedule, for instance: a schedule used when you are at home, and a different schedule when you are away for a few days. Once you have defined a set of EVENTs, you can then transmit them to your CP-290 controller for timed execution. You can also retrieve the EVENTs currently stored within your CP-290 at any time.

One of the most powerful features of XtenWIN is the ability to specify EVENT times as either positive or negative offsets from either sunrise or sunset. This allows you to specify that your outdoor lights should come on thirty minutes after sunset, for instance. And, of course, go off one hour before sunrise! XtenWIN will routinely update the actual times of these EVENTs within your CP-290 controller automatically for you as the sunrise and sunset times change throughout the year. The sunrise and sunset times are computed based upon the latitude and longitude of your location, as specified during program installation.

XtenWIN also provides two different programs that you can run as icons in the background while you go about your other tasks. You provide one program with a list of EVENTs, and when you double-click on the icon, the EVENTs are presented to you for your selection. When selected, the EVENT is executed immediately. You can also specify that instead of running continually, waiting for user selection, that the program should execute all of the specified commands once and then terminate. This allows other Windows programs to direct XtenWIN to issue sets of pre-defined X10 commands on demand.

The other background icon works similarly, but you provide to it a list of DEVICEs. When the icon is double-clicked, the list of DEVICEs is presented. When a DEVICE is selected, additional dropdown menus are provided for specifying ON/OFF/DIM and DIM Level.

XtenWIN EVENTs Editor

This program provides the ability to define all of your X10 Devices so that they can be used in defining EVENTs to be executed by the CP-290 controller. EVENTs can be defined and stored into multiple files on your disk to be recalled and executed later. Once you have defined the EVENTs, the EVENTs Editor can then be used to transmit them to the CP-290 controller.

For details, select one of the following:

EVENTs Update Program

This program is used to automatically update EVENTs that have been defined and transmitted to the CP-290 controller and are dependent upon the sunrise or sunset time for their exact execution time. This program is typically run every time that you start Windows. You specify during installation how many days are to elapse before the controller EVENTs should be updated to reflect the changing sunrise and sunset times. You can change the frequency after initial program installation by using the OPTIONS Menu Command of the XtenWIN EVENTs Editor Program. The EVENTs Update Program retrieves the EVENTs currently stored in the CP-290, adjusts their execution times based upon current sunrise and sunset times, and then retransmits the EVENTs to the controller.

The *X10UPDTE.EXE* program should be run each time that Windows is started to assure that the EVENTs stored within the CP-290 controller, that are based upon either sunrise or sunset, can be continually updated to reflect the changing sunrise and sunset times in your area.

You tell Windows to run this program each time that Windows is started by specifying the **Run=** parameter within the WIN.INI parameter file found in your Windows directory. If you are using Windows version 3.1 or greater, the XtenWIN installation program can do this for you by placing the X10UPDTE.EXE program into the STARTUP Program Group (Windows Program Manager). The **Run=** parameter can be specified as follows:

Place into file WIN.INI after the section heading: **[Windows]** the following statement:

Run=c:\xtenwin\x10updte.exe

The above assumes that you have placed the XtenWIN programs into the C:\XTENWIN directory. Adjust accordingly.

Each time the X10UPDTE program is run, it displays a window that continually monitors the progress of the EVENTs updating as follows:

The first thing that the program does is to check to see how many days have elapsed since it last updated the controller EVENTs. It then checks the XtenWIN Setup Options to determine if enough days have elapsed; if not, it terminates immediately. See EVENTS Update Frequency Parameter.

If the EVENTs in the controller are to be updated, all of the controller EVENTs are retrieved, updated, and then retransmitted to the controller.

Another XtenWIN program, XTENCMDS.EXE, can also be run each time that Windows is

executed. It provides a facility for immediate X10 command execution via a background Windows program that displays as an icon. If the appropriate command line switches are specified, the XTENCMDS program will automatically invoke the X10UPDTE program as well.

See also:

Options Menu Command
EVENTs Based Upon Sunrise and Sunset
Installing XtenWIN
Specifying XtenWIN Program Options
Sunrise and Sunset Paramters
EVENTs Update Frequency Parameter

XtenWIN Programs

XtenWIN consists of several programs. They can be run by selecting their icons from the Program Manager (if the Program Manager Group was created during installation).

EVENT Editor

EVENTs Editor: XTENWIN.EXE. Edit DEVICE and EVENT definitions, and maintain EVENTs within the CP-290.

Update CP-290 EVENTs

EVENTs Update Program: X10UPDTE.EXE. Automatically update EVENT times within the CP-290, based upon daily sunrise and sunset times.

X10 Devices

X10 Devices Program: XTENDEVS.EXE. Background (icon) program for issuing immediate commands to specified DEVICEs.

X10 Commands

X10 Events Program: XTENCMDS.EXE. Background (icon) program for executing specified EVENTs immediately.

Setup Options

Setup Options: X10OPTS.EXE. Specify XtenWIN options.

Standard Editor Windows

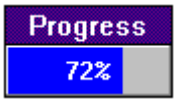
The XtenWIN EVENT Editor (XTENWIN.EXE) continuously displays several standard windows. In addition, various dialog boxes will be displayed when certain Menu Commands are selected. The standard windows are listed below. Click on them for more details:

EVENT Window

DEVICE Window

CP-290 Transmission Window

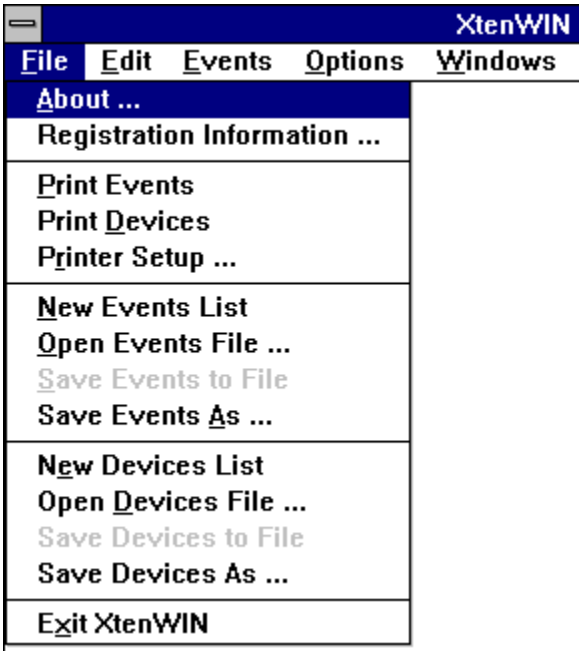
While XtenWIN is processing several functions, a Meter Bar is displayed that depicts the progress of the currently executing function. All functions requiring transmission to or receipt from the CP-290 Controller will display this Progress Bar.



Menu Commands

Most of the facilities and functions of the XtenWIN Editor are accessed by selecting (by clicking with the left mouse button) various items from the Menu Bar shown above. For a description of each of the Menu Commands, select one of the Command Names below:

FILE Commands



The drop down menu shown above is used to access the following Menu Commands:

About Displays a dialog box describing the XtenWIN program, and the current processing environment.

Registration Information Displays dialog boxes that describe how to register XtenWIN.

Print Events Sends a copy of the EVENTs that are currently displayed in the Events Window to the default printer.

Print Devices Sends a copy of the DEVICEs that are currently displayed in the Devices Window to the default printer.

Printer Setup Displays the system printer setup dialog, allowing the user to configure the Windows printer.

New Events List Clears any existing EVENTs from the Events Window.

Open Events File Displays a file dialog box, allowing the user to specify an EVENTs file to read into the Events Window.

Save Events to File Saves the contents of the Events Window to the same file the EVENTs were read from. If either the EVENTs have not changed since they were read from the file, or if there is no currently loaded file (EVENTs retrieved from CP-290) than this menu item will be disabled.

Save Events As A file dialog box is displayed, allowing the user to save the contents of the Events Window to a new or existing file specified by the user.

New Devices List Clears any existing DEVICEs from the Devices Window.

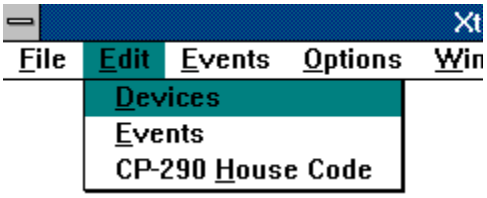
Open Devices File Displays a file dialog box, allowing the user to specify a DEVICEs file to read into the Devices Window.

Save Devices to File Saves the contents of the Devices Window to the same file the DEVICEs were read from. If either the DEVICEs have not changed since they were read from the file, or if there is no currently load file (**New Devices List**) than this menu item will be disabled.

Save Devices As A file dialog box is displayed, allowing the user to save the contents of the Devices Window to a new or existing file specified by the user.

Exit XtenWIN Closes all windows, and exits the XtenWIN Editor.

EDIT Commands



The EDIT Menu, shown above, is used to modify currently loaded DEVICE and EVENT definitions. It can also be used to change the CP-290 Base House Code.

Select one of the following for more information on each EDIT Command:

Edit DEVICEs

Edit EVENTs

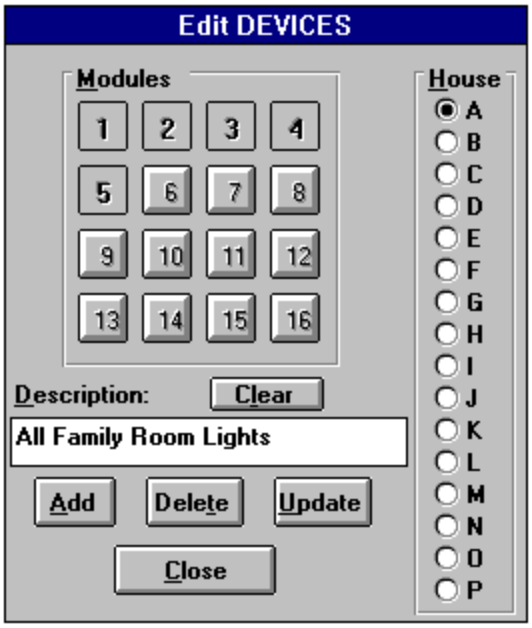
Change Base House Code

EDIT DEVICES Command

The XtenWIN programs do not require you to specify the house code and the module number of the items you want to reference. Instead, you define each of the DEVICEs that you will reference by giving it a description.

A DEVICE (per XtenWIN use) can consist of one *or more* modules within the same house code. For instance, the DEVICE with a description of *Family Room Lamps* could be modules **5**, **7**, and **13** within house code **G**.

When the EDIT DEVICEs Menu Command is selected, the following dialog box is displayed:



The above dialog box can also be opened by double-clicking on a DEVICE in the DEVICEs Window

To update the definition of the current DEVICEs, use the above dialog box in conjunction with the DEVICEs window also displayed on your desktop. The controls displayed within the Edit Devices dialog box define the three elements that make up each DEVICE definition: The House Code; one or more Modules; and a Description.

If you want to delete a current DEVICE, select that DEVICE in the DEVICEs Window by clicking on it, and then click the **Delete** button.

If you want to modify a current DEVICE, first select that DEVICE in the DEVICE window by clicking on it. Note that the controls within the Edit DEVICE dialog box are updated to reflect the DEVICE that you selected. Now, make changes to the Edit DEVICE dialog box controls to reflect the changes you want to make, and then click on the **Update** button. The DEVICE window will be updated to reflect the changed definition.

If you want to add a new DEVICE to the current DEVICE definitions, use the Edit DEVICE dialog box controls to define the new DEVICE, and then click on the **Add** button. The new DEVICE will be added to the DEVICEs window. Note that you can use an existing DEVICE as

a model for your new DEVICE by first selecting the existing DEVICE before setting the Edit DEVICE dialog box controls to reflect the new DEVICE.

When you have completed all changes, click on the **Close** button to close the dialog box and continue with other XtenWIN commands.

You should use theFILE Menu commands to write your changes to your disk. If you attempt to terminate the XTENWIN program without savings changes made to your DEVICEs, you will be reminded to save them.

EVENTS Menu

The drop down menu items shown above are used to interact with the CP-290 Controller to either store/retrieve EVENTs, or to send an EVENT to the controller for immediate execution.

Immediate Events

If you select the *Immediate Events* item, the following dialog box will be displayed:

To execute an X10 command (via the CP-290 controller) immediately, you must first select a DEVICE in the Devices Window, and then click on either the **ON**, **OFF**, or **DIM** buttons shown in the dialog box above. Before clicking the **DIM** button, you should first select the **Level** by clicking on the **Dim** and **Bright** arrows to set the appropriate level or brightness.

You may issue multiple X10 commands this way. When you are finished, click on **Close** to remove the dialog box and re-enable the main menu bar.

Retrieve Events from Controller

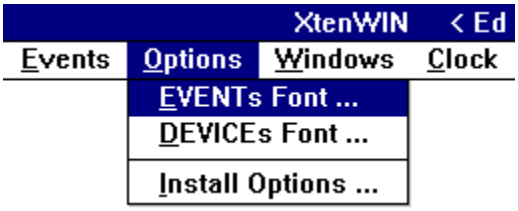
When the *Retrieve Events from Controller* menu item is selected, all of the EVENTs currently stored within the CP-290 controller are retrieved, and displayed in the EVENTs Window. This operation may take a minute or so; the Progress Meter is updated as EVENTs are retrieved.

Transmit Events to Controller

When the *Transmit Events to Controller* menu item is selected, the EVENTs displayed in the EVENTs Window are transmitted to and stored within the CP-290 controller for timed execution.

Because this command replaces entirely the contents of the controller, a warning dialog box is displayed first, allowing the user the oppurtunity to change his mind.

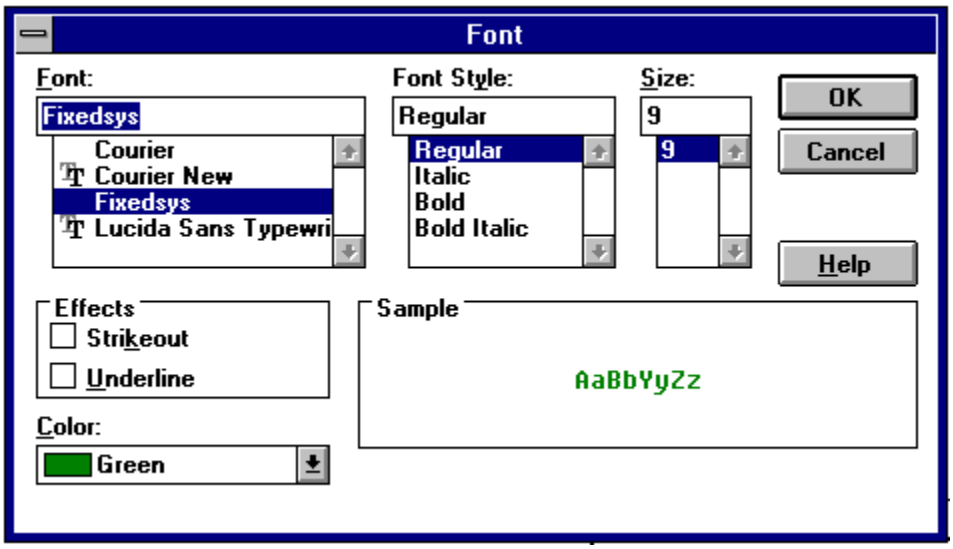
OPTIONS Menu



The drop down menu shown above is used to specify operation options for the XtenWIN programs. The options you specify are stored within the file **XTENWIN.INI**, which resides within you Windows Directory.

EVENTs Fonts and DEVICEs Fonts

When either the *EVENTs Fonts* or the *DEVICEs Fonts* menu items are selected, the dialog box shown below is displayed to allow you to define the font you want used when displaying either EVENTs or DEVICES in the EVENTs Window or the DEVICEs Window:



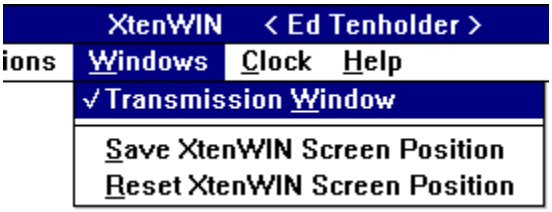
Select a font style and size that is both pleasing visually, and allows all of the display to fit within the EVENTs Window and the DEVICEs Window..

Install Options

When this menu item is selected, XtenWIN executes the X10OPTS.EXE program to allow the user to specify basic XtenWIN parameters. You may specify the COM port to be used to access the CP-290 controller, the city (or latitude and longitude) where you are running XtenWIN in order for the current sunup and sundown times to be computed, and the frequency in which you wish the timer events stored in the CP-290 controller to be adjusted

for continually changing sunup and sundown times. The Topic Specifying XtenWIN Program Options describes how to use the X10OPTS.EXE program.

WINDOWS Menu



The drop down menu shown above is used to specify options concerning the positioning of several XtenWIN windows. Each menu item is described below:

Transmission Window

The CP-290 Transmission Window can optionally be displayed at the bottom of the XtenWIN application window. The *Transmission Window* menu item is checked when the Transmission Window is opened. Clicking on this menu item reverses the state of the Transmission Window.

NOTE: The Transmission Window is always opened during program initialization, and is then closed if you have not requested that it remain open.

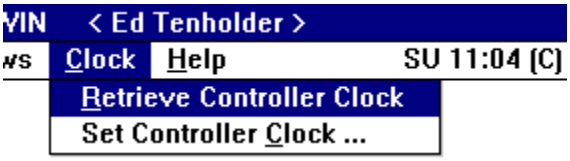
Save XtenWIN Screen Position

When this menu item is selected, the current position of the XtenWIN application window is saved as the default position. This position will be used each time that XtenWIN is started.

Reset XtenWIN Screen Position

When this menu item is selected, the default position of the XtenWIN application window will be reset to the internal defaults.

CLOCK Menu



The *CLOCK* drop down menu shown above is used to maintain the CP-290 controller clock. The controller clock consists of the time of day in hours and minutes (in 24 hour time, no AM/PM), as well as the day of the week.

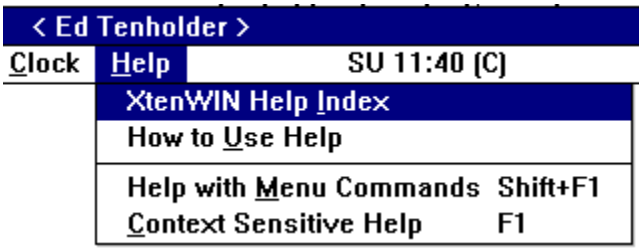
The current value of the controller clock is retrieved from the CP-290 Controller when XtenWIN is first started, and displayed to the right of the Menu Bar as shown above. The clock display above represents **Sunday, 11:04 AM**, and the Base House Code is currently set to **C**.

The following menu items are used to retrieve the current clock values from the controller and display them on to the right on the Menu Bar, and to change the clock values in the controller:

Set Controller Clock Sub Command

Retrieve Controller Clock Sub Command

HELP Menu



The drop down menu shown above is used to invoke the Windows Help Facility to display information concerning the XtenWIN programs.

XtenWIN Help Index

Selecting this menu item will display the *index* or *Contents* HELP topic. This topic serves as the Table Of Contents for all of the XtenWIN HELP topics.

How to Use Help

Selecting this menu item will display HELP topics that describe how to use the Windows HELP Facility.

Help with Menu Commands (Shift+F1)

Select this menu item if you want information on any of the other XtenWIN Menu Bar Items. When this menu item is selected, the cursor is changed from the standard selection arrow to a black box; and the Menu Bar Title is changed as follows:

Selecting any menu item using the black box cursor will display the HELP Topic about the menu item, instead of executing that Menu Command. The cursor and Menu Bar Title are then restored to normal.

Another way of initiating the Menu Commands HELP Cursor is by depressing **Shift+F1**.

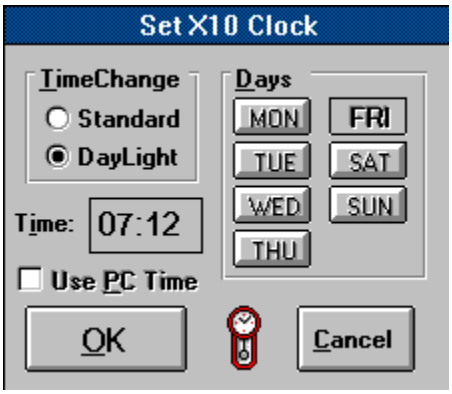
Context Sensitive Help (F1)

This menu item exists only to provide a *Short-Cut Key* for invoking context sensitive HELP Topics. Normally, you would not select this menu item from the drop down menu.

During the execution of any XtenWIN Menu Command, you may depress **F1** to display the HELP Topic that describes the current command.

SET CONTROLLER CLOCK

The following dialog box is displayed when you select this Menu Command.



The current settings of the controller clock are displayed via the settings of the controls within the dialog box.

If you select the **Use PC Time** check box, your PC time and day of week (instead of the values from the CP-290 controller) are displayed via the settings within the dialog box.

You can change the day of week by clicking on any single **Days** button, and you can change the time of day by entering a valid time from 00:00 to 23:59 in the **Time** text box.

You must also specify the **Time Change** parameter, in order for XtenWIN to be able to compute the correct sunrise and sunset times each day. Select either the ***Standard*** or ***Daylight*** option button to indicate if your area is currently observing Daylight Savings time. This parameter is not transmitted to the CP-290 controller, but is saved in the XtenWIN Parameter File.

When you click on the **OK** button, the values represented by the dialog box controls are transmitted to the CP-290 controller. If you click on **Cancel**, the dialog box is closed and the controller clock is not changed.

RETRIEVE CONTROLLER CLOCK

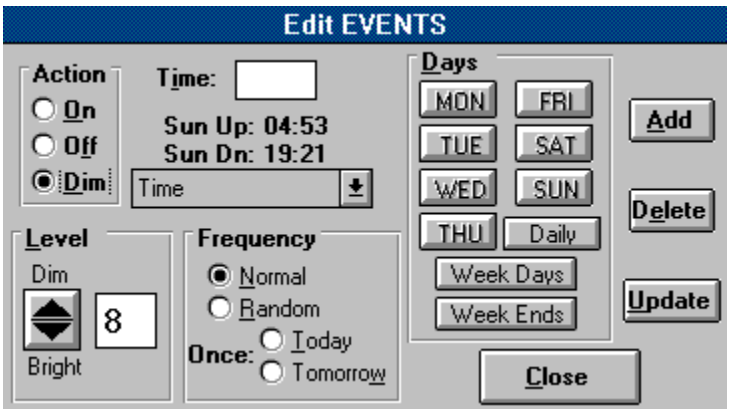
When you select this Menu Command, the CP-290 controller clock values are retrieved from the controller and displayed to the rightmost part of the main menu bar. The controller clock is displayed in the following format:

FR 13:05 (M)

The above time represents 1:05 PM on Friday, and the Base House Code is currently set to "M".

Edit EVENTs Command

The EDIT EVENTs Menu Command is used to update or delete existing EVENTs listed in the EVENTs Window, or to add new EVENTs to the list. When the EDIT EVENTs Menu Command is selected, the following dialog box is displayed:



You can also display the above dialog box by double-clicking on an EVENT in the EVENTs Window.

To update the definition of the current EVENTs, use the above dialog box in conjunction with the DEVICEs Window also displayed on your desktop. The controls displayed within the EDIT EVENTs dialog box define the elements that make up each EVENT definition.

If you want to delete a current EVENT, select that EVENT in the EVENTs Window by clicking on it, and then click the **Delete** button.

If you want to modify a current EVENT, first select that EVENT in the EVENTs Window by clicking on it. Note that the controls within the EDIT EVENTs dialog box are updated to reflect the EVENT that you selected. Now, make changes to the EDIT DEVICEs dialog box controls ro reflect the changes you want to make, and then click on the **Update** button. The EVENTs Window will be updated to reflect the changed definition.

If you want to add a new EVENT to the EVENTs Window, use the EDIT EVENTs dialog box controls to define the new EVENT, and then click on the **Add** button. The new EVENT will be added to the EVENTs Window. Note that you can use an existing EVENT as a model for your new EVENT by first selecting the existing EVENT before setting the EDIT EVENTs dialog box controls to reflect the new EVENT.

When you have completed all changes, click on the **Close** button to close the dialog box and continue with other XtenWIN commands.

You should use the FILE Menu Commands to write your changes to your disk. You may also want to transmit the changed EVENTs to your CP-290 Controller using the EVENTS Menu Commands.

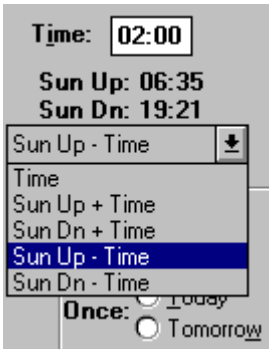
EDIT EVENTs Controls

Device You select the Device that the EVENT is to effect by selecting it in the Devices

Window.

Action Select either ON, OFF, or DIM as the function to be performed.

Time Enter the time, in 24-hour format, that the EVENT is to be executed. The current sunrise and sunset times are displayed immediately below the Time entry box.



A drop-down list is used to determine how the specified time is to be used. Select **Time** if the entered time is the exact time the EVENT should be executed. Select **SunUp+Time**, or **SunUp-Time** if the specified time is an offset from sunrise. Select **SunDn+Time**, or **SunDn-Time** if the specified time is an offset from sunset.

Frequency If *Today* or *Tomorrow* is selected, than the EVENT will be executed only once by the CP-290 controller, and then it will be deleted. If Normal or Random is specified, than the EVENT will be executed on each day of the week specified by the **Days** control. If *Today* or *Tomorrow* is selected, than the **Days** control is not displayed.

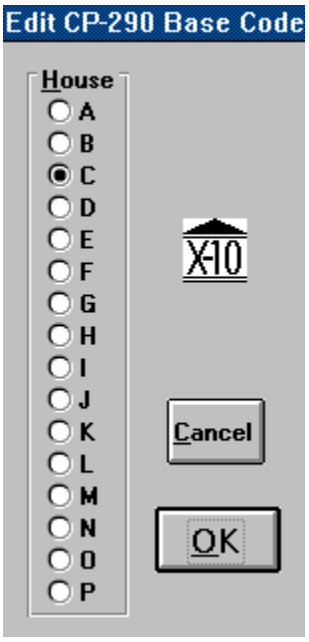
Level This control is only displayed if the *Dim* **Action** is specified. Use the up and down arrows to change the dim level from 0 to 15. The lower the level specified, the brighter the light.

Days Use these controls to specify one or more day(s) of the week that the EVENT is to be executed. The **Days** controls are not displayed if the **Frequency** is specified as *Today* or *Tomorrow*.

Change Base House Code Command

The CP-290 controller has eight manual rocker switches mounted on its case that can be used to manually turn modules 1 through 8 either on or off. The house code that is used with these manual buttons is stored internally within the controller, and can only be set through the computer interface (the controller is initialized to use house code **A** when it is first powered up).

Use the EDIT CP-290 House Code menu command (EVENTs Editor Program) to display the following dialog box:



Click on the house code you want transmitted to the controller and then click **OK**. Note that the CP-290 controller memory is cleared by this command (restriction of the controller), so make sure that you have a copy of the EVENTs you will want to transmit to the controller either currently loaded by XTENWIN, or saved in an EVENT file (.E10) on your disk.

Glossary

Click on any of the words below for a description of the meaning and use of the word in conjunction with the use of the XtenWIN program.

DEVICE

A *DEVICE* is a grouping of one or more modules defined with the same Housecode. Therefore, a *DEVICE* may consist of a single lamp, for example, or all of the lamps in the living room. A *DEVICE* is defined to XtenWIN using the EDIT-DEVICES menu command, and consist of:

DESCRIPTION A text description of the module(s) to be used to reference this DEVICE

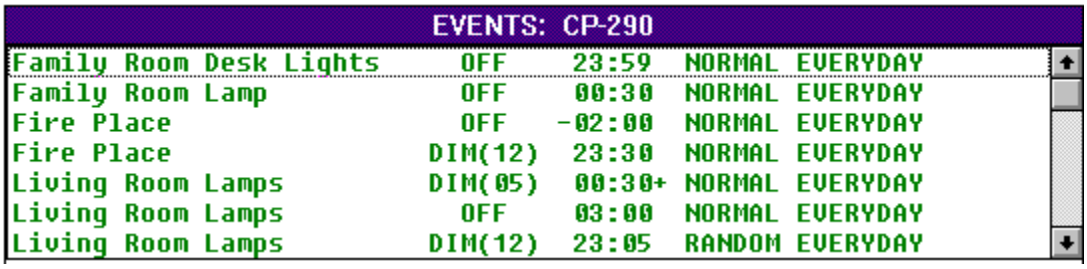
HOUSE CODE The House Code that define the module(s) that make up this DEVICE

MODULES The Unit Number(s) within the specified House Code that make up this DEVICE. Note that multiple Modules within the same House Code may be specified when defining a single DEVICE

EVENT

An *EVENT* is a defined action that is to affect a single DEVICE (that may consist of multiple modules, if they all have the same House Code). An EVENT also defines the time of day, the day(s) of the week, and other special effects pertaining to the action that is to affect the DEVICE. Actions consist of ON, OFF, or DIM. Special options include a random feature and the ability to specify EVENT times that are offset from the continually changing sunrise and sunset time of the local area.

Events Window

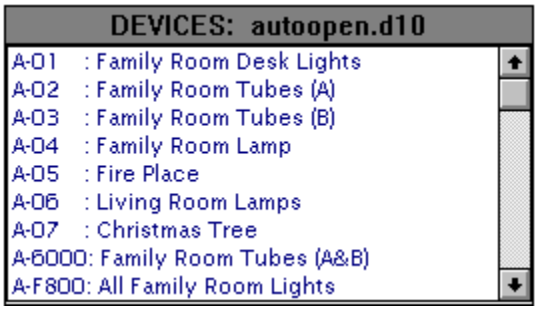


The Events Window is always displayed during execution of XtenWIN. This scrollable window contains a list of the event definitions currently loaded into memory, either from a disk file, or from the CP-290 controller. When editing (updating or deleting) events, you select the event to edit by clicking on the appropriate line in this window. You can also open the EDIT EVENTs dialog by double-clicking on an EVENT in the EVENTs Window.

See Also: Interpreting EVENT List

Devices Window

The Devices Window is always displayed during execution of XtenWIN. This scrollable window contains a list of the device definitions that are currently loaded into memory. Devices can be added, deleted, and updated using the EDIT DEVICES menu command.

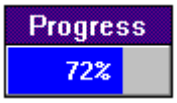


Multiple device definitions can be saved to disk, and loaded back into memory using the FILE Menu Commands.

When editing (updating or deleting) devices, you select the device definition to be edited by clicking on the appropriate line in this window. When an Event is selected in the Events Window, the device referenced by the selected event is highlighted in the Device Window.

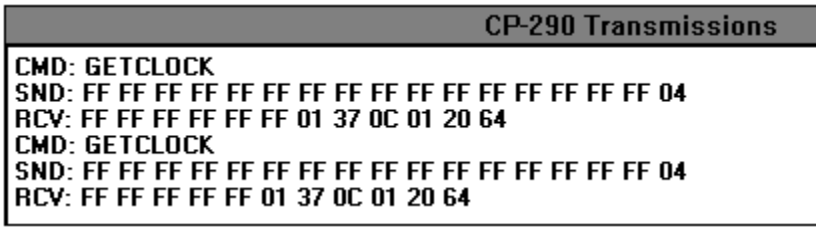
Progress Meter

During execution of commands and tasks that can take more than a few seconds, particularly transmissions to and from the CP-290 controller, a window is displayed in the top right corner showing the estimated percent of completion of the task.



CP-290 Transmission Window

This window displays characters transmitted to the CP-290 and received from the CP-290 controller during initial program startup. This window can be opened or closed during normal program execution using the WINDOWS Command. While viewing the transmission characters can be helpful in understanding the operation of the CP-290 controller and in debugging problems, the transmission display slows down execution significantly.



It is recommended that the Transmission Window should normallly be closed.

CharityWare

A form of software distribution similar to ShareWare, in which a program is made available for testing and trial use free of charge. The program is fully functional, but may contain "guilt" screens reminding the user to register the software if they continue to use it.

CharityWare differs from ShareWare in that all proceeds from registrations go to a pre-defined charity, instead of to the author.

Cystic Fibrosis

Cystic fibrosis (CF) is the number-one genetic killer of children and young adults in the United States. Today, there is no cure.

One in twenty Americans -- more than 12 million people -- carry the gene which causes CF. In 1955, when the CF Foundation was established, few children lived to attend elementary school. Today, more than half are living beyond their early twenties.

In August of 1989, scientists located the gene which causes CF. This breakthrough is helping scientists find new therapies and treatments for those afflicted with CF.

By providing the best in research, technology, treatment and support, the Foundation, together with its many generous supporters, will soon make cystic fibrosis a thing of the past.

MODULE

Each and every lamp, or other device, that you wish to control using the CP-290 controller must be connected to an X10 module. Each module is identified to the CP-290 controller using a House Code that consists of a single letter from **A** to **P**, and a unit number from **1** to **16**. Most X10 modules have two rotary wheels that are used to specify the letter and number that identify the module to the CP-290 controller. Note that there are sixteen house codes and sixteen unit codes, yielding 256 possible unique modules.

HOUSE CODE

Each X10 Module that is to be controlled by the CP-290 controller is uniquelly identified by both a House Code and a Unit Code. Each House Code can be a letter from **A** to **P**, and are generally used to divide the devices you will be accessing into separate groups. For instance, you might want to define all of your lamps in your family room to have the same House Code, and all of your units in the basement to have a different house code.

Note that a single EVENT that can be used by XtenWIN for various operations can consist of one ***or more*** modules that have a common House Code. This allows you to easily define operations that effect all (or a subset) of the modules within the same House Code.

RANDOM Event Times

When specifying an EVENT that occurs more than once, the EVENT can be defined to occur at the same time each day it is to be performed (NORMAL), or it can be defined to occur anywhere within the hour specified, ignoring the minutes specification. The minutes within the hour is generated randomly each day. This can be used to randomly change the time lamps come on and off each day while you are away from home, so that it is not so obvious that they are being activated electronically.

NORMAL Event Times

When specifying an EVENT that occurs more than once, the EVENT can be defined to occur either randomly, or it can be defined to occur at the exact time as specified in the EVENT definition. If you want the EVENT to occur a precisely the same time each day it is performed, specify *NORMAL* instead of *RANDOM*.

CP-290 Base House Code

The CP-290 controller can manually issue ON and OFF commands to eight different modules via the eight rocker buttons on top of the controller. The House Code (**A** to **P**) that is used to issue commands for these eight buttons (module codes **1** to **8**) must be defined and stored within the controller, and is known as the *Base House Code*. If no House Code is specified, the controller defaults to **A** when it is powered on.

The Base House Code can be defined and transmitted to the controller by XtenWIN using the CLOCK Menu Command.

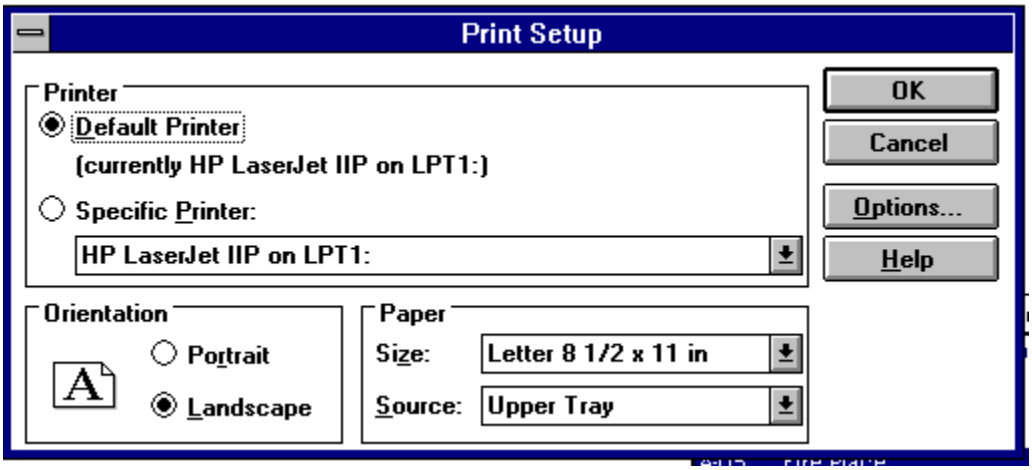
X10 UPDATE Program

The X10UPDTE.EXE program is run daily to update all EVENTs that are stored in the CP-290 controller that are defined to occur before/after the current sunrise/sunset. This program retrieves all controller EVENTs; it then computes the current sunrise and sunset times based upon the latitude and longitude information defined during installation; it modifies the absolute time of any EVENTs that are dependent upon sunrise/sunset; and then retransmits all EVENTS back to the CP-290 controller.

The X10UPDTE program will only update the EVENTs every so many days, depending upon the days specified by the EVENTs Update Frequency Parameter. This parameter is set using the X10OPTS.EXE program.

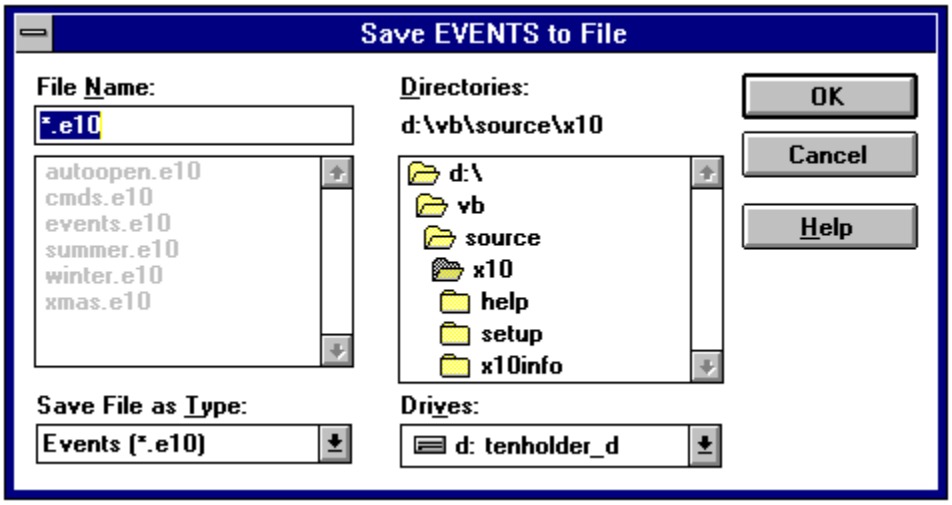
Printer Setup Dialog

The Following dialog box is used to set options for the Windows printer



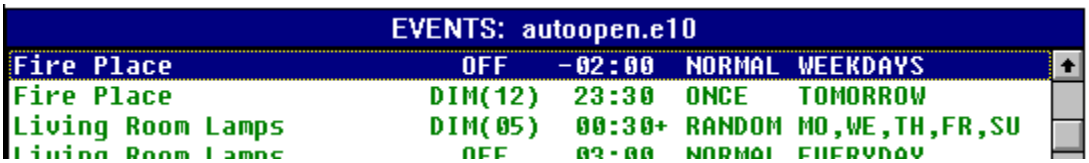
File Dialog Box

The following dialog box is displayed to allow the user to specify a path and filename to open or to save an EVENTs or DEVICEs file.



Interpreting EVENT List

The window shown below contains three EVENTs.



The first column displays the description of the DEVICE that the EVENT refers to. Next comes the function to be performed on the DEVICE, consisting of either *ON*, *OFF*, or *DIM*. If the function is *DIM*, then the level is displayed within parenthesis (0-15, with 15 being the dimmest). The EVENTs time is shown next, in 24-hour format. If the time is preceded by either a plus (+) or minus (-) sign, then the time is an offset from sunrise. If the time is followed by either a minus or plus sign, then the time is an offset from sunset. The first EVENT shown above, will occur two hours before sunrise, the second EVENT will occur at 11:30 PM, and the third EVENT will occur 30 minutes following sunset.

The next column indicates if the EVENT will occur *ONCE*, or on the days indicated each week. If the EVENT will occur each week, either RANDOM or NORMAL will appear, and the days of the week will be shown as in the first and third EVENTs shown above. If *ONCE* is specified, than the EVENT will be scheduled to occur once, either *TODAY* or *TOMORROW*, as in the second EVENT above.

How to Perform XtenWIN Tasks

Click on one of the tasks from the following list for more information about using XtenWIN:

Starting the XtenWIN Program

Starting XtenWIN

The XtenWIN program is started by executing the XTENWIN.EXE program module. This can be done by selecting the XtenWIN icon from the Program Manager window (if installed during program installation).

The program can also be started using the File Manager. Move to the directory containing the XtenWIN files, and double-click on XTENWIN.EXE to start the program using all default parameters. To specify optional startup parameters, highlight the file XTENWIN.EXE by clicking it once, and then select the FILE menu command, and then the RUN sub-menu command. Complete the command line and then click OK.

XtenWIN Startup Display

Depending upon the speed and memory configuration of your computer, it may take as long as 15 seconds for XtenWIN to load and complete initialization. In order to let you know that XtenWIN has actually begun execution, a small window containing the XtenWIN logo is displayed first.

Once the XtenWIN program has been initialized, the main window is displayed containing a menu bar, and the following sub-windows:

Events Window

Devices Window

Progress Meter

CP-290 Transmission Window

If you have not registered your copy of XtenWIN, a CharityWare window will be displayed, reminding you to register your copy. The Cystic Fibrosis Foundation receives all funds from XtenWIN registrations, and your generosity is appreciated. For more information about cystic fibrosis, charityware, and registering your copy of this program, Click Here

CP-290 Initialization

The final startup task is to open the interface to the CP-290, and assure that your computer can properly communicate through the interface.

XtenWIN opens the serial port specified during installation via the OPTIONS program. It then attempts to retrieve the clock setting from the CP-290. Three attempts are made,

before an error message is displayed, if XtenWIN cannot successfully retrieve the controller's clock settings.

Displaying CP-290 Transmissions

The Transmission Display Window can be opened and displayed at the bottom of the main window. This window displays all characters transmitted to and received from the CP-290 controller.

The CP-290 command name is first displayed, followed by the command that is transmitted to the CP-290 controller, and then the characters received from the CP-290 controller. Viewing these transmissions can help understand the operation of the XtenWIN program and the CP-290 controller, and can also help resolve any program problems. However, the operation of the program is slowed significantly when the Transmission Display Window is opened.

The Transmission window can be opened and closed using the WINDOWS Menu command, and the state of this option is saved across multiple executions of XtenWIN. It is recommended that this window normally remain closed to speed up program execution.

XtenWIN Command Line Parameters

The XtenWIN program does not utilize any command line parameters at this time. All parameters used by the program are set by the X10OPTS.EXE program via the OPTIONS Menu Command, and are stored in XTENWIN.INI file within your Windows program directory.

Updating the CP-290 Time and Day

The CP-290 controller maintains a time of day clock, in hours and minutes (no seconds) and the day of the week. This clock must be set in order for the EVENTS stored in the controller to be executed at the proper times. The time is specified in hours and minutes in military time, that is, hours from 0 to 23 instead of AM/PM. The day of the week must also be specified.

The CP-290 controller has eight manual buttons on the top of the unit that can issue ON or OFF commands for modules 1 through 8. The commands issued by these buttons reference the CP-290 BASE HOUSE CODE that is defined and stored in the controller by downloading the house code from XtenWIN.

EVENTS that are transmitted to the CP-290 controller can be defined relative to the current sunrise and sunset time. In order for XtenWIN to properly compute the current sunrise and sunset times, it needs to know (besides the current date) the latitude/longitude of the local area, and if the area is currently observing daylight savings time. The latitude and longitude are specified once during program install via the OPTIONS Menu Command or through execution of the X10OPTS.EXE program. When the local area changes from daylight savings time to standard time, and vice-versa, the CP-290 controller clock must be updated and the XtenWIN program must be told if daylight savings time is now being observed. The Daylight savings/standard time indication is stored in XTENWIN.INI, not in the CP-290 controller.

Use the CLOCK Menu Command to specify all of the above information to the CP-290 controller, and to specify the daylight savings parameter.

Registering XtenWIN

CharityWare Registration Screens

If you have not entered a valid registration number for XtenWIN, then you will be greeted by a nag screen each time you run an XtenWIN program. When you run the EVENTs Editor (XTENWIN.EXE), and you have not successfully registered, you will be greeted with a CharityWare nag screen for the Cystic Fibrosis Foundation. If you have not sent for and received a registration number, then click **I'm Still Evaluating XtenWIN**. If you want information about registering XtenWIN, or if you have received a registration number and would like to enter it, click **I Want to Register XtenWIN**.

If you clicked **I Want to Register XtenWIN**, you will see a dialog box containing information about registering XtenWIN. If you have a registration number, click **Enter Registration**. Otherwise, click on **Continue** to continue evaluating XtenWIN.

When you are entering your registration number, note that all characters are either **0-9**, or **A-F**. Do not enter spaces between characters.

How to Register

To obtain information about registering XtenWIN, select the FILE: Registration Information from the EVENTs Editor program's Menu Bar.

The author can always be reached at:

Ed Tenholder
11296 Briarstone Dr.
St. Louis, MO 63126-3453

Compu-Serve: 76447,1030

EVENTs Based Upon Sunrise and Sunset

Many of the EVENTs that you may want to define to be executed routinely by the CP-290 controller will be for lights that you want to go on and off based upon dawn and dusk. While it would be nice to be able to tell the CP-290 controller to "turn on the front porch light twenty minutes after sunset", the CP-290 controller does not support this. XtenWIN, however, does supply a facility that allows you to easily accomplish scenarios like the above.

When you specify the time that you want an EVENT to be executed by the CP-290 controller, you can specify the time as either an *absolute* time, or an *offset from either sunrise or sunset*. For EVENTS that are defined relative to sunrise/sunset, XtenWIN computes the current sunrise and sunset times based upon the current date and the latitude and longitude specified during installation, and from this, computes the actual time the relative EVENT is to be executed today. The EVENT that is transmitted to the controller contains the absolute time the EVENT is to be executed today, as that is the only form of timer EVENT that the controller recognizes.

In order for the relative EVENTS to be executed at the proper times as the sunrise and sunset times change, the absolute times of these EVENTS stored in the controller must be changed as the sunrise and sunset times change. Although the EVENTS stored in the controller can only contain absolute times, XtenWIN has devised a way to also store within the controller the required offsets from sunrise and sunset, so that XtenWIN can continue to update the stored absolute EVENT times. In order to do this, XtenWIN must be able to access these EVENTS routinely to maintain the EVENT times fairly accurately. This routine EVENT updating is performed by the X10UPDTE program.

The X10UPDTE.EXE program should be run frequently. Normally, the **run=** parameter should be specified in the *WIN.INI* Windows parameter file to run X10UPDTE.EXE each time Windows is started. The following example shows how to specify this parameter:

```
[windows]
run=c:\xtenwin\x10updte.exe
```

If you have Windows 3.1 installed, you can have the SETUP.EXE program (X10SETUP.EXE) place the X10UPDTE.EXE icon and program information into the STARTUP Program Manager Group. This automatically creates the RUN= parameter in *WIN.INI*.

Although the X10UPDTE program is run every time Windows is started, it is not necessary to update the controller EVENTs more often than once a week or so. You can specify the frequency in which X10UPDTE actually updates the EVENTs by modifying the EVENTs Update Frequency Parameter. This parameter tells X10UPDTE how many days must elapse since the last update, before the EVENTs are to be updated again. X10UPDTE checks this parameter immediately upon startup, and if the required time has not elapsed, then the program ends immediately. This allows you to run X10UPDTE every time Windows starts up without significantly impacting Windows performance.

See Also:

OPTIONS Menu Command
EVENTS
Setting the Controller Clock
X10UPDTE.EXE Program
Updating the CP-290 Time and Day

Specifying XtenWIN Options
EVENTS Update Frequency Parameter

Installing XtenWIN

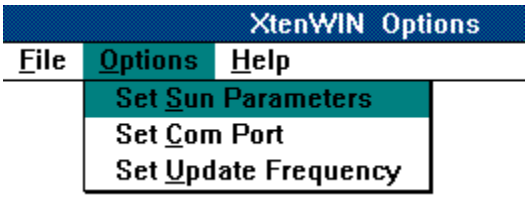
Installation information can be found in the file **README.TXT**.

XtenWIN programs must be installed using the installation program **SETUP.EXE**.

Specifying XtenWIN Program Options

The program *X10OPTS.EXE* is used to specify several parameters that effect the operation of XtenWIN. This program can either be executed directly from the Program Manager, or it can be invoked while running the EVENTs Editor by selection the OPTIONS Menu Command.

Once the Options Program is started, it displays a window with a the following Menu Bar:



The Menu Bar above shows the Options drop down menu. These menu items are used to set the following XtenWIN options:

Sunrise and Sunset Parameters

Communications Port

EVENTs Update Frequency

The XtenWIN Options Program is also run during initial installation, but instead of allowing you to select individual options from the menu bar, the installation program steps through all three options automatically.

XTENWIN.INI Parameters

The XtenWIN parameter file *XTENWIN.INI* is maintained in the Windows directory on your disk. Parameters are stored in the standard Windows format consisting of *Section Names* and *Parameter Names* and their values. The following is an example of the **XtenWIN** *Section* containing the **Path** and **Index** *Parameters*:

[XtenWIN]
Path=C:\WINDOWS\X10
Index=37

Following are descriptions of the Sections and Parameters that are used by XtenWIN.

[XtenWIN]

Path= Specifies the drive and path that contains the XtenWIN program and data files. This includes files distributed with the XtenWIN program, as well as all DEVICE and EVENT definition files created during program execution. This parameter is created by the X10OPTS.EXE program.

CommPort= Specifies the number of the communications port to be used by XtenWIN to communicate with the CP-290 controller. This parameter is created and modified by the X10OPTS.EXE program.

EventUpdateFrequency= Specifies the number of days that must elapse between automatic updating of the EVENTS in the CP-290 controller that are based upon the sunrise and sunset times. This parameter is set by the X10OPTS.EXE program, and is used by the X10UPDTE.EXE program to determine if it should update the controller EVENTS.

LastAutoUpdate= Specifies the date (in serial number format) of the last time that the controller EVENTS were automatically updated to reflect the current sunrise and sunset times. This parameter is updated by the X10UPDTE.EXE program.

[MainForm]

Left=
Top=
Height=
Width= Specifies the size and location of the main XtenWIN window. These parameters are updated when the user requests that the current window location become the default at startup via the WINDOWS. If these parameters are set to **DFT**, then XtenWIN will position the main window at the internal default location.

[UpdteForm]

Top=
Left= These parameters specify the location of the X10UPDTE.EXE status window. The location of this window is saved from execution to execution of the program, and is updated by X10UPDTE.EXE whenever the user moves this window.

[DisplayForm]

Visible= Specifies if the CP-290 Transmission Window is to be displayed after program initiation. **-1** means the window is to be displayed, **0** means that the window is not

to be displayed.

[CharityWare]

RegisterCode= This parameter contains the registration code received from the author of XtenWIN after you have registered the program. This code consists of 54 hexadecimel characters (**0-1,A-F**), with no imbedded spaces. This parameter is updated from the CharityWare windows in XtenWIN when you select to enter the registration number.

[Sun]

LatitudeDeg=
LatitudeMin=
LatitudeSec=
LongitudeDeg=
LongitudeMin=
LongitudeSec= These parameters specify the latitude and longitude of your local area in degrees, minutes, and seconds. These parameters are set by the X10OPTS.EXE program, and are used to compute the current sunrise and sunset times.

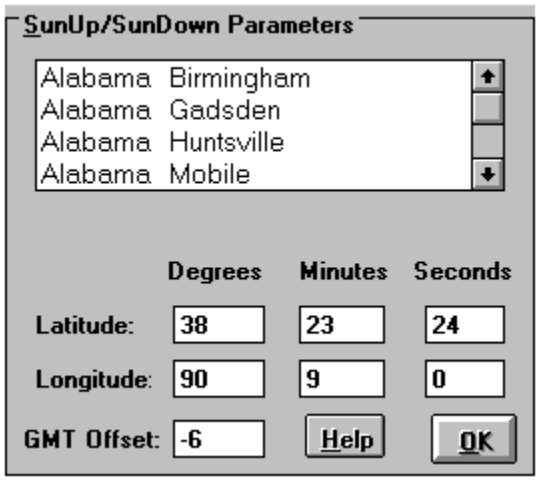
GMTOffset= This parameter specifies the number of timezones your local area is *east* of the Greenwhich Meridian. Note that a minus number is used to specify a timezone *west* of the meridian.

DayLightSavings= Specifies if the local area is currently observing daylight savings time. A **-1** means yes, a **0** means no.

Sunrise and Sunset Parameters

XtenWIN provides the capability to specify timer events that change as the sunrise and sunset times change each day. In order for XtenWIN to correctly compute the correct daily sunrise and sunset times, it must know the latitude and longitude of your city, and its time zone.

A list of major cities and there latitude and longitude is maintained and distributed with XtenWIN in the file *LATLONG.DAT***.**

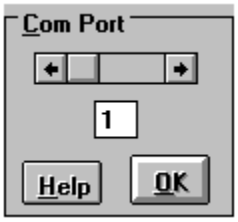


X10OPTS.EXE displays the SunUp/SunDown Parameter dialog box shown above for you to specify your location. The easiest way for you to specify your location is by scrolling through the list of cities, and double-clicking on the one closest to your actual location. The latitude and longitude parameters will be filled in for you. If you cannot find a suitable city in the list, then you can specify the latitude and longitude in Degrees, Minutes, and Seconds in the text entry boxes.

You must also specify the number of time zones you are *east* of Greenwich Mean Time. You enter this number as the Greenwich Mean Time Offset, or **GMT Offset** in the dialog box. Note that if you are *west* of Greenwich, then this offset will be negative. For example, the US. Eastern time zone has a GMT Offset of -5, while the Central time zone has a GMT Offset of -6.

If the List Box does not contain a list of cities, but instead contains the message *City Data File Unavailable*, then X10OPTS could not locate the file *LATLONG.DAT* in the drive and directory that you previously specified as the XtenWIN Directory.

COM Port Parameter



The above dialog box displayed by X10OPTS.EXE is used to specify a serial communications port. In order for XtenWIN to communicate with the CP-290 controller, it must use one of your computers serial communications ports. These ports are referenced as COM1, COM2, etc.

Use this dialog box to select the number of the serial port that the CP-290 controller is attached to. Use the scroll arrows to increment and decrement the value displayed below the scroll bar.

If you are having problems getting XtenWIN to communicate with your CP-290 controller, read the HELP topic Windows Communications Ports for possible solutions.

EVENTs Update Frequency Parameter

XtenWIN provides the ability to store EVENTs in the CP-290 controller that are based upon the sunrise and sunset time, that changes daily based upon geographic location. See the HELP Topic EVENTs Based Upon Sunrise/Sunset for more information about specifying and maintaining EVENTs that are based upon sunrise or sunset times.

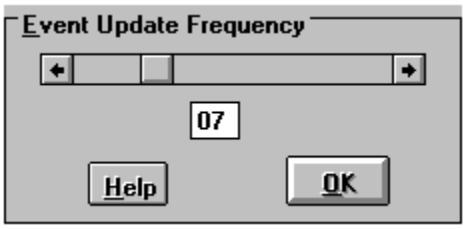
Included with XtenWIN is the X10UPDTE.EXE program that should be run daily (normally as part of Windows startup via **RUN=** parameter specified in the *WIN.INI* Windows parameter file or by placing X10UPDTE.EXE into the Windows Program Manager STARTUP Group). This program retrieves all EVENTs from the controller, computes the current sunrise and sunset times, updates all EVENTs that are dependent upon sunrise and sunset, and then retransmits the EVENTs to the controller. As a Windows program, all of this can happen in the background while you are performing other tasks.

Practically, it is not necessary to update the EVENTS everyday. This is where the EVENTS Update Frequency Parameter becomes important. This parameter specifies how many days should elapse before the CP-290 EVENTS are updated again by X10UPDTE.EXE.

The first thing X10UPDTE.EXE does, is to check to see if the necessary number of days have elapsed since the last update. If not, nothing is done, and the program exits quickly, taking very little time and resources away from other tasks. This makes it very reasonable to run X10UPDTE.EXE each time Windows is started, with little impact on other Windows activity.

If you want X10UPDTE to update the controller EVENTs every time, then specify an EVENTs Update Frequency of 0.

The Options Program displays the following dialog box for you to specify the number of days that must elapse before the X10UPDTE.EXE program will retrieve and updtate your controller EVENTs:



There is another program distributed with XtenWIN (XTENCMDS.EXE) that is intended to run in the background, and you may wish to run it each time Window is executed as well. In order to allow you to run both, the XTENCMDS program will (optionally) run the X10UPDTE program as the first task it performs before it goes dormant in the background. That way, you only need to specify **RUN=XTENCMDS.EXE** in order to perform the X10UPDTE and XtenCMDS functions.

Solving XtenWIN Problems

Windows Communications Ports

These topics contain information concerning how DOS and Windows interact with the serial ports of your computer. In order to transmit and receive data to and from your CP-290 controller, the controller must be attached to one of your computer's serial ports.

Windows, particularly version 3.0, has several peculiarities in the way it deals with serial ports, particularly when you attempt to use more than two COM ports. Many users are already using two of their serial ports for their serial mouse and a modem, and wish to connect their CP-290 controller via a third serial port. Many have experienced difficulties in getting XtenWIN to communicate via their serial port successfully.

These topics attempt to explain in detail the issues surrounding successful operations of multiple serial ports under Windows, and provides solutions to many of the problems users of XtenWIN have experienced in the past.

Serial Port Parameters

Your computer can have multiple communications (or serial) ports. These serial ports are referred to as COM1 through COM4.

There are two parameters that uniquely identify each serial port. Each port has a unique *Base Address* and *Interrupt Request Line.* These parameters are actually part of the hardware controller for the serial port.

The *Base Address* identifies the hardware memory address that is used to communicate commands and data between your computer and the serial port controller card. Every hardware controller installed in you computer communicates with your computer via unique memory addresses.

The *Interrupt Request Line* identifies which of a limited number of hardware interrupt lines available on your computer is used by the serial port to indicate to your computer that it is ready to receive or transmit data. On early XT machines, there were only eight interrupt lines available for all hardware controllers to use, designated as **IRQ0**-**IRQ7**. On AT and later machines, a second set of interrupts were added to support additional controllers, designated as **IRQ8**-**IRQ15**. On these machines, **IRQ2** is used in a special way, and is required to extend access to the levels above IRQ7. IRQ2 generally should not be used on AT and later machines.

Serial ports commonly use the following base address and IRQ values:

Port	**Addr**	**IRQ**	
COM1	03F8	4	Note 1
COM2	02F8	3	
COM3	03E8	4	
COM3	3220	3	Note 2
COM4	02E8	3	

Note 1: If the BIOS data area of your computer specifies the COM1 address as 02F8, then Windows will use IRQ3 instead of IRQ4.
Note 2: PS/2 parameters

Setting Serial Port Controller Parameters

Each of your computer's serial ports must have their *Base Address* and their *Interrupt Request* numbers defined on the controller board that is installed within your computer.

On PS/2 and some EISA bus machines, these parameters can be set when installing the controller board using the reference diskette for your computer.

On all other machines (ATs, clones, etc), these parameters are usually set by changing mini switch settings on the boards or by moving small jumpers between pins on the circuit boards. The controller board documentation should explain how to do this.

How Programs Access Serial Ports

There is a very significant difference in the way that DOS programs reference and access your serial ports, and the method used by Windows programs to indicate which serial port it is to use. Understanding this difference may go a long way in understanding why you may be able to access one or more of your serial ports using DOS programs (both within, and outside of, Windows), but you cannot get the same serial port to work using Windows programs.

DOS Programs

When a DOS program opens a serial port for transmission, it must specify both the base address and the IRQn of the serial port. Many times the user of the program is asked to specify which serial port the program is to use as COM1 through COM4. The DOS program determines which base address and IRQn to use based upon the COMn you specify.

Many DOS programs allow you to additionally specify the base address and IRQn parameters that apply for the port you want to use, instead of the program using its built-in defaults.

The most important thing to remember, is that the DOS program is specifying which Base Address and IRQn to use.

Windows Programs

Windows programs only specify the serial port it is using by specifying COM1 through COM4. Windows determines which Base Address and IRQn to use for each of the COMn ports. Unfortunately, Windows does not always make the proper determination.

Fortunately, there are ways provided to give Windows the information it needs to properly determine the Base Address and IRQn for each of the COMn serial ports. See Setting Windows Serial Port Parameters

Setting Windows Serial Port Parameters

To specify the Base Address and IRQ values for the COM port to be used by XtenWIN, start the Windows Control Panel program, and then select the **Ports** icon. Click on the **Settings...** button, and then click on the **Advanced...** button. The Advanced Setting dialog box will now be displayed.

Specifying Advanced Serial-Port Settings

Use the Advanced Settings dialog box to specify an I/O address and an interrupt request line (IRQ) for your serial port.

To set advanced port options

1 In the Control Panel window, choose the Ports icon.
2 Double-click the port you want to use.
Or press TAB to select the port, and then press ALT+S to choose the Settings button.
3 Choose the Advanced button.
4 Change the base I/O address if your serial-port hardware uses address values other than the values that Windows detects.
5 If you are using a computer that cannot access COM1 and COM3 or COM2 and COM4 simultaneously, and you want to use these ports, specify a unique IRQ number for each port.
6 Choose the OK button. Any changes you make will not take effect until you restart Windows.
7 To make your changes take effect now, choose the Restart Now button.

For help with the Settings and Advanced Settings dialog boxes, choose the Help button or press F1 while using the dialog boxes.

COM4 Problems (Missing COM3)

How Windows Determines COM Parameters

Windows determines the normal IRQ and Base Address for a COM port by using the BIOS data area that is initialized by your computer when you first turn it on. Your computer builds this area by checking out the controllers attached to your computer. This normally works fine for COM1 and COM2, particularly if they are standard ports for your computer. Many computers, however, will not properly initialize this BIOS data area for COM3 and above.

One particular problem, is when a computer has a COM4 port present, but no COM3. Many computers will build the BIOS Data Area incorrectly, filling in the third entry (COM3) with the COM4 information.

Displaying the BIOS Data Area

Exit Windows, and then run the DOS program DEBUG.EXE.

At the DEBUG prompt (**-**), enter: **d40:0**

You should see a display similar to the one below:

40:0 F8 03 F8 02 E8 02 00 00

The above display (hi/low bytes reversed) corresponds to addresses:

03F8
02F8
02E8

If you do not have an actual COM3, the BIOS finds your COM4 port at 02E8, and calls it COM3 in the BIOS Data Area. This confuses Windows, which thinks that there is no COM4, and that COM3 is at 02E8/IRQ4 --- and the IRQ4 will conflict with anything on COM1.

You can solve this problem by placing the following in your SYSTEM.INI file (Windows directory), under the **[386Enh]** section:

COM3IRQ=-1
COM4Base=02E8
COM4IRQ=3

This will disable the false COM3 BIOS entry, and set the correct parameters for COM4.

IRQ Conflicts

If you have more than one serial ports defined with the same IRQ number (typically, COM1 and COM3 default to IRQ4; and COM2 and COM4 default to IRQ3), then there is a good chance that you will have problems under Windows.

There are problems with Windows 3.0, that will not even allow you to alternate between ports that share the same IRQ. Under Windows 3.1, in all circumstances, you should be able to use COM1, and then COM3 (but not at the same time) as long as you successfully close COM1.

If you are using either a Micro-Channel or EISA machine, than you may be able to simultaneously access both COM1 and COM3 under Windows 3.1, if your serial ports support IRQ sharing. If they were standard equipment on your computer, than they probably do support IRQ sharing. Make sure that you have specified COMIrqSharing=TRUE in SYSTEM.INI (in your Windows directory).

COM References

For more information concerning Windows and the serial ports, refer to the following MicroSoft Knowledge Base articles available on Compu-Serv. To access them, enter **GO MSKB.**

Q65796 Communications Problems in Terminal

Q82545 Sharing Comm Ports IRQs with Windows 3.1

Q83449
Q83450 Windows 3.1 Serial Communications Q & A, Part I and II

Conflicts with Other Windows Programs

XtenWIN is written using MicroSoft's Visual Basic programming environment. There have been problems reported, in some environments, between Visual Basic and some screen blankers. Particularly, problems have been reported with AFTER DARK. If you are experiencing unexplained problem, remove screen blankers and restart Windows.

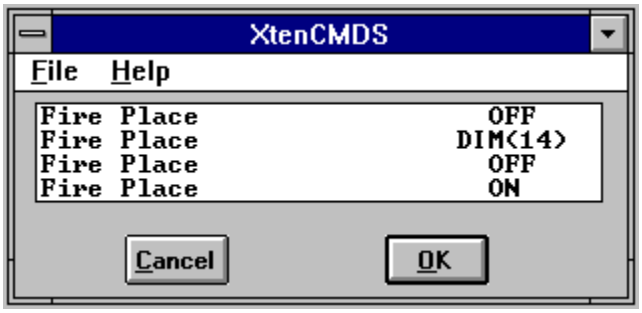
There have been problems reported using XtenWIN with the program launcher **WINEZ**. This program modifys other application menu bars, and apparently there is some conflict with Visual Basic applications.

X10 Background EVENTs (XTENCMDS.EXE)

Introduction

Several users of XtenWIN have requested the capability to have a mini-XtenWIN program running as an icon that can be used to issue immediate commands to X10 modules via the CP-290. The XTENCMDS.EXE program provided with XtenWIN now provides this capability.

This program can be started, and allowed to run in the background as an icon. This program, then, is immediately available to issue commands to X10 devices for immediate execution. Just double-click on the icon, and a list of EVENTS (defined through use of the EVENTs Editor) is displayed (see dialog box below). Double-click on the EVENT you want executed, and the program returns to the background and executes the specified command.



In addition, XTENCMDS can also be run in *batch* mode, in which it is given a file of X10 commands to be executed, it issues these commands in the background, and then terminates. This provides a way for other Windows programs to easily issue X10 commands by starting XTENCMDS with the correct EVENTs file as a parameter.

Starting XTENCMDS

The following command line parameters are used to determine how XTENCMDS.EXE will process EVENTs:

/Efilename This parameter defines the name of the file that contains the EVENTs that are to be used by XTENCMDS. These EVENTs are defined and then saved using the EVENTs Editor.

/Dfilename This parameter defines the name of the file that contains the DEVICEs that are referenced by the EVENTs in the file defined by the above **/E** parameter.

/NOUPDATE If this parameter is specified, then the EVENTs Update Program will not be run during initialization of XTENCMDS. If this parameter is not specified, then the X10UPDTE.EXE program will be run during XTENCMDS initialization.

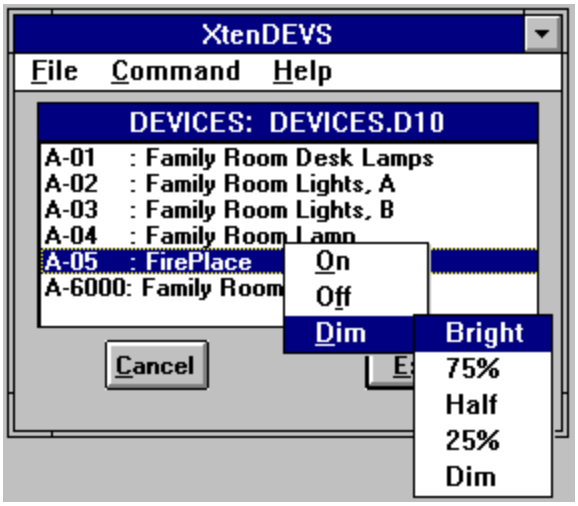
/B Normally, XTENCMDS runs as an icon in the background, waiting for the user to interact with it to initiate a single X10 command. If the **/B** parameter is specified, then

XTENCMDS will run in batch mode. In batch mode, XTENCMDS will immediately execute all of the commands in the file specified by the **/E** parameter, and then terminate.

X10 Background DEVICEs (XTENDEVS.EXE)

Introduction

The XTENDEVS program runs as an icon in the background, waiting for the user to activate it by double-clicking on the icon. Then, the following dialog box is displayed:



A list of DEVICEs is displayed in the list box. When you click on one of the DEVICEs, a drop down menu is displayed from the point where you clicked, displaying the commands **ON**, **OFF**, and **DIM**. Click on the command that you want sent to the DEVICE that you selected. If you select the **DIM** command, another drop down menu is displayed, allowing you to select how much to dim the DEVICE. The dialog box shown above shows the drop down menus for initiating a **DIM** command for the **Fireplace** DEVICE.

Command Line Parameters

/Dfilename This parameter specifies the filename that contains the DEVICE definitions that you want displayed in the dialog box. This DEVICE definition file is created using the EVENTs Editor.

/NOUPDATE If this parameter is specified, then the EVENTs Update Program will not be run during initialization of XTENDEVS. If this parameter is not specified, then the X10UPDTE.EXE program will be run during XTENDEVS initialization.