NEXTGEN PROGRAMMING SOFTWARE
QUICK START GUIDE
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RECOMMENDED SYSTEM REQUIREMENTS
Processor: 500-MHz Intel Pentium-class processor (Minimum: 90-MHz)
Memory: 128MB RAM (Minimum: 32MB)
Operating System: Microsoft Windows® Server 2003; Windows XP Professional; Windows XP Home Edition; Windows 2000 Professional & Server
Supported Models; ET70115C, ET70115CR, ET70115CR24, ET70215C, ET70215CR, ET70215CR24, ET70415CR, ET70415CR24, ET70815CR, ET70815CR24, ET71615CR, and ET71615CR24.

Welcome to the NextGen Programming Software!!
Thank you for trying the NextGen programming software. This software is intended for use with Intermatic© brand Next Generation time switches. Use for any other purpose is strictly prohibited.

The first screen will give you the opportunity to Browse CD, Install, Contact Us, or Exit the installation utility. To install the NextGen programming software click "Install".

Selecting "Browse CD" will pull up a menu of screens which will allow you to view this manual or the various guides which ship with the Next Generation time switch for installation and manual data entry.

To view these guides you will need the Adobe Acrobat Reader© installed on your computer. If you do not have Adobe Acrobat Reader© installed it is included along with the option to install it from the CD. After reviewing the included information you can return to the main menu by clicking the "Main Menu" button.
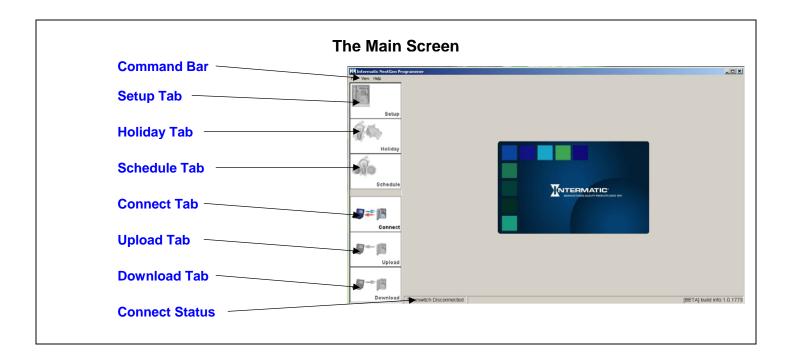
NOTE: It is not necessary to have the CD in the drive to use the NextGen programming software, however documentation including this manual are available on the CD.

Installation
After selecting "Install", the installation wizard will begin and ask you to confirm the installation. You will also be presented with Intermatic©'s software license agreement. After agreeing to the terms of use, the software will be loaded onto the hard drive of your computer.

When the installation is complete, the installation wizard will display that it has completed the installation. Click finish to leave the installation wizard.

The Main Screen

Command Bar

Setup Tab

Holiday Tab

Schedule Tab

Connect Tab

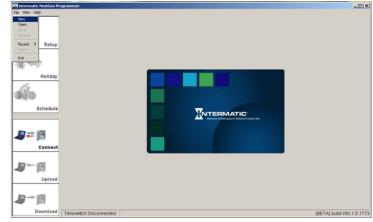Upload Tab

Download Tab

Connect Status

GETTING STARTED
The NextGen programming software can be started from the START menu or by selecting the NEXTGEN icon on the desktop.

When the initial programmer screen comes up, select either to start a new program or to connect to a timeswitch. If you currently have a time switch and wish to connect to it and upload its existing program, skip ahead to "Connecting the Hardware", otherwise begin with "Starting a New Program".

It is important that you become familiar with the Command Bar. As with other Windows® based programs there are menus to navigate.

File menu: The File menu allows you to start New programs, Open saved programs, Save programs that are in the PC's memory, or Exit the NextGen programming software.

View menu: The View menu gives you the opportunity to view the Astro map, set options, and print reports.

Help menu: The Help menu gives information about the version of the NextGen programming software you are using. You can also pull up this programming guide from the Help menu if you should ever need to consult it.
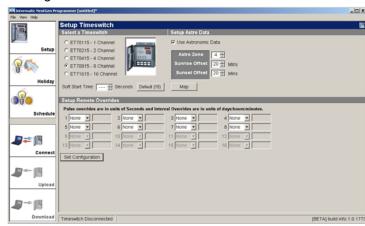
Starting a New Program
To start a new programming file use the mouse pointer to click the File menu item from the Command Bar. Select New from the drop down menu. This will create a new, blank programming file.

After selecting New, the display will change to the Setup screen. In the Setup screen you will be prompted to enter specific information related to your timeswitch.

First you will want to select which model of timeswitch you will be programming. As you select the different models of Next Generation timeswitch, the display will change to show an image of the timeswitch.

After selecting the model, you should select whether the timeswitch will use Astronomic Data. This is the built-in feature that allows the timeswitch to calculate Sunrise and Sunset. This is a common feature used with the Next Generation timeswitch.

To properly set the timeswitch to track Sunrise and Sunset you will need to consult the astro zone map. This map can be viewed in the Next Generation programming guide or by clicking on the Map button. After determining which zone your area falls in, close the map screen by clicking on the X in the upper right hand corner of the Map screen. Next you will need to enter that zone number in the Astro Zone field. This will se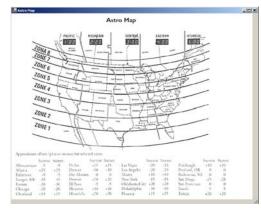t the timeswitch to the proper Sunrise and Sunset times as they would be in the middle of your time zone. Sunrise and Sunset offset times can be entered to more closely align the timeswitch with the actual Sunrise and Sunset times for your area.

The Soft Start Time is the amount of time the timeswitch will delay between switching loads ON that are set for the same time. This feature allows the timeswitch to avoid "hitting" the power-line too hard by staggering loads that could have an undesirable effect if allowed to switch simultaneously. The default is set to a 15 second delay between circuits, this can be reset to whatever delay you desire or no delay at all.

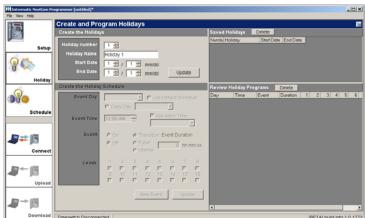The next step on the Setup Tab is to select what will occur when an override is activated either on the timeswitch itself or one that is remotely connected. Overrides can be set to either None, Pulsed, or Interval depending on your needs. None is the default function for overrides, in this mode the override button will force a change of state either ON or OFF to the associated load when activated. Pulsed overrides will change the state of the output to ON for a preset duration of 1 to 127 seconds. Interval overrides will change the state of the output to ON for a preset duration of 1 minute to 6 days, 23 hours and 59 minutes.

Finally the configuration that you have set needs to be saved. Do not leave this screen without clicking on the Set Configuration button. As this button is clicked, the Holiday and Schedule tabs will activate allowing them to be selected as desired.

Creating Holiday Schedules

Holidays: To the Next Generation time switch holidays are any time periods when you would like the timeswitch to operate differently than its normal daily schedule. For instance, if school will be on break during the summer, the timeswitch can be set to have a holiday period which starts on the first day of summer break and ends on the first day of class in the fall. During this period the timeswitch would not ring the hourly class bells, but it would continue to activate the parking lot lights on a slightly different schedule.

To establish a holiday, select the Holiday Tab. Next you will need to select the holiday number from the holiday menu. If you desire, you can change the name from the default.

Next you need to set the starting day and month and ending day and month of the holiday. Click the Update button to add the holiday to the holiday list. You will see the holiday appear in the Saved Holidays box on the right side of the display. Up to 99 holidays can be defined to take place during the year.

NOTE: If a holiday period crosses through the end of the year (i.e. New Years break starts on the 28th of December and ends on the 3nd of January). You will need to start the holiday on 12/28 and end it on 12/31 and then start a second holiday on 1/1 and end it on 1/3.

Occasionally you may need to adjust the days that certain holidays fall on. To modify a holiday, either select the holiday number using the up and down arrows or select the holiday in question in the Saved Holidays box. The holiday information will be displayed in the fields. Make your changes and click the Update button. The new information will replace the old information in the Saved Holidays box.
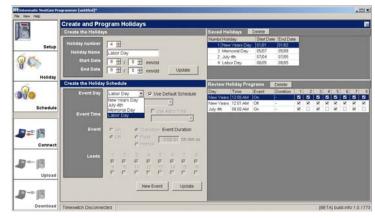
If you need to remove a holiday that was added by mistake, simply select the holiday in the Saved Holidays box. Then click on the Delete button at the top of the box.

Now that your holidays are established, it is time to set the schedules that will take place during those periods. By clicking on the arrow next to the Event Day field all the holidays you have defined will be displayed. Select the holiday you would like to add events to from the list.
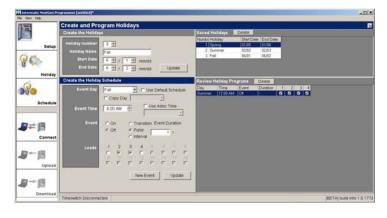
You will note that the "Use Default Schedule" checkbox is checked, this will suspend all events during the holiday period. If this is your desire, simply click the Update button at the bottom of the screen. The event will be added to the Review Holiday Programs box.

On the other hand, if you need a special set of events to be executed during the holiday period, you just need to unselect the "Use Default Schedule" checkbox. If the event will occur at sunrise or sunset, check the "Use Astro Time" checkbox. By clicking on the arrow beside the astro field, you will be able to select Sunrise or Sunset. Otherwise select the time the event will occur at in the Event Time field. Next you will need to select whether the event will turn output(s) ON or OFF. Select the Event radio button next to ON or OFF to make this selection.

The Next Generation time switch is capable of three types of output modes: 1) Transition, 2) Pulse, or 3) Interval. Transition events simply turn the output ON or OFF and maintain that state until a second event occurs to change it. This is the most common type of event. The Pulse mode pulses the output from 1 to 127 seconds when activated. Pulses are often used to ring bells or control lighting contactors. The Interval event can be from 1 minute to 6 days, 23 hours, and 59 minutes and adds the convenience of creating an event that can be self-terminating. For example if you would like to turn a light on at 6:00pm and back off at 8:00pm you can create an Interval ON event starting at 6:00pm lasting for 2 hours. The selected loads will turn ON at the beginning of the

Interval and turn back OFF at the end of the Interval without the need for a second event. Finally you will need to select which output(s) will be affected by the event. Simply check the boxes of the associated outputs to select or de-select them. When you have finished creating your event click the Update button. The event will be added to the Review Holiday Programs box.

You may at some point need to adjust the time that certain events occur. To modify an event select the event in question in the Review Holiday Programs box. The event information will be displayed in the fields. Make your changes and click the Update button. The new information will replace the old information in the Review Holiday Programs box.

NOTE: After changing an event it is important to click the NEW EVENT button before making additional changes to the information in the event selection area. Otherwise you may mistakenly make changes to the event that was previously selected.

If you need to remove an event that was added by mistake simply select the event in the Review Holiday Programs box. Then click on the Delete button at the top of the box.
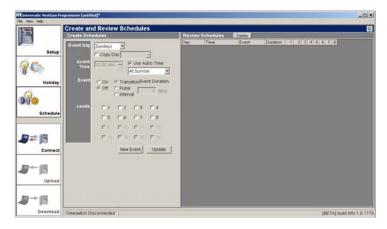
After setting up all holidays and all events that will occur on those holidays, you can move on to setting your daily schedules.

Creating Daily Schedules

Daily schedules are those events that happen during the course of a normal week. Events can be set to happen on specific days, all days, weekdays, or weekends. To set your daily schedules select the Schedule Tab.

By clicking on the arrow next to the Event Day field all the days that can have scheduled events will be displayed. Select the day or group of days you would like to add events to from the list.

The default setting will be to use astro times if you have selected the use of astro times in the initial setup of the timeswitch. By clicking on the arrow beside the astro field you will be able to select Sunrise or Sunset.
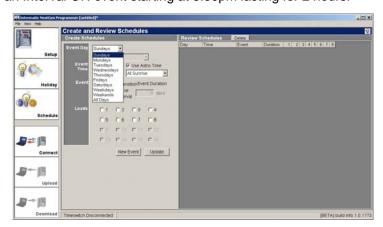
If the event is not an astro event, uncheck the "Use Astro Time" checkbox. Select the time the event will occur at in the Event Time field. Next you will need to select whether the event will turn output(s) ON or OFF. Select the Event radio button next to ON or OFF to make this selection.

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Finally you will need to select which output(s) will be affected by the event. Simply check the boxes of the associated outputs to select or de-select them. When you have finished creating your event, click the Update button. The event will be added to the Review Schedules box.

After you have created one or more events, you may wish to use the Copy Day feature of the timeswitch. This feature is helpful if you want one day to act exactly as a previously set day. For example if you were to set several events to occur on Monday and you wanted to have the

same schedule of events happen on Thursday you would simply select Thursday as the Event Day and then select the Copy Day checkbox. In the field would be a list of days that had been previously set for you to pick from to copy. In our example you would select Monday and then click the Update button. Now the timeswitch will perform the same series of events on Thursdays that it does for Mondays with one simple function rather than manually entering all the information again.

You may at some point need to adjust the time that certain events occur. To modify an event select the event in question in the Review Schedules box. The event information will be displayed in the fields. Make your changes and click the Update button. The new information will replace the old information in the Review Schedules box.

NOTE: If you are intending to create a new event without changing an existing event, it is important to click the NEW EVENT button before making additional changes to the information in the event selection area. Otherwise you may mistakenly make changes to the event that was previously selected.

If you need to remove an event that was added by mistake simply select the event in the Review Schedules box. Then click on the Delete button at the top of the box.

After setting up all events that will occur during the week you are ready to connect your PC to the Next Generation timeswitch.

Connecting the Hardware

To exchange information between the Next Generation timeswitch and your PC you will need to connect it via a serial communications cable. The Next Generation timeswitch is equipped with a digital communications port on the back of the logic module. This telephone jack type port is used to connect the timeswitch to the ET7232M1 serial interface. This interface also allows you to connect remote overrides to the timeswitch. A standard serial extension cable (Blackbox Cat. #BC00242 or B&B Electronics Cat. #9PAM6) is used to connect your PC's serial port to the front of the ET7232M1.
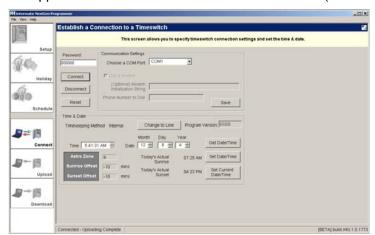
Connection of the timeswitch through Ethernet networks is also supported with the use of a Serial Server interface (B&B Electronics Cat. #ESP901). This device acts as an extended serial port for your PC allowing you to attach serial devices over an extended network. To your PC the serial server just looks like another local serial port.

Now that your PC is physically connected to the Next Generation timeswitch you are ready to go to the "Connect Tab".

The Connection Tab

The Connection Tab takes you to the Connection Screen. In this area you can configure the serial port you will be using with the timeswitch, query the timeswitch for current time & date settings, and initiate a link with the timeswitch.

If a password has been set on the timeswitch, fill in the 6-digit number field. If there is currently no password and you want to establish one, you will have to enter it on the timeswitch manually using the keypad. See the Users Guide for your specific model for details on setting a password. Save this number, it will be required to access the timeswitch in the future. If you decide to not use a password just leave the password as the default "000000".

Next verify the Communication Settings. The COM port setting should match the port that the serial cable is connected to.

After verifying the proper COM port and Password click the Connect button. Upon connecting to the clock a flashing bar will be present on the timeswitch's display and the Upload and Download tabs will become active. The status of the connection will also be displayed in the lower left corner of the NextGen screen.

If the timeswitch has been previously programmed you can query the timeswitch for its current time and date settings. To do this, click the Get Date/Time button. The information will be displayed in the fields.

To modify or set the time and date for the first time fill in the correct information in the fields provided. If you would like to set the timeswitch to the current time and date that your PC is set to simply click the Set Current Date/Time button. To write the new time and date information to the timeswitch click the Set Date/Time button.
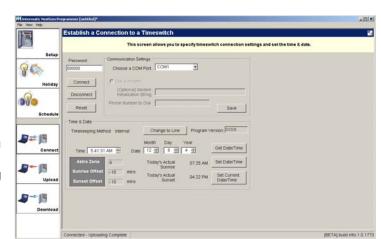
NOTE: It is necessary to set the time and date before downloading a program to the timeswitch.

To disconnect from the timeswitch click the Disconnect button. This is used when you have completed your communications with the timeswitch.

Finally the Reset button can be used to reset the timeswitch after making alterations to the program that you want to take effect immediately. This should be used with caution since the timeswitch will interrupt all outputs during the reset process which may cause undesirable effects.

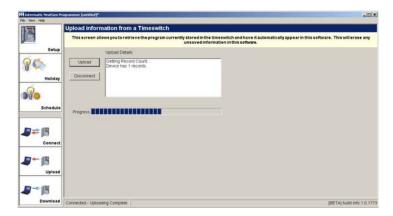If you want to Upload a program that is currently in the timeswitch you can proceed to "Uploading a Program from the Timeswitch". If you wish to Download the program that is in your PC to the timeswitch skip to "Downloading a Program to the Timeswitch".

Uploading a Program from the Timeswitch

Uploading a program from the timeswitch can only be done after connecting to it. If you have not connected the timeswitch to your PC or have not initiated the link between the timeswitch and your PC then you should review "Connecting the Hardware" and the "Connect Tab" sections.

NOTE: If you have a program in the PC's memory, uploading the program from the timeswitch will overwrite it and it will be lost. Be sure to save any programs you want to keep.
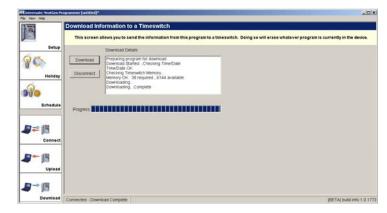
The Upload screen is very simple, all you have to do is click the upload button and provided the timeswitch is properly connected and linked to the PC it will upload the complete contents of the timeswitch's memory into the PC. This program can then be viewed, edited, and reloaded into the timeswitch.

After the upload is complete, you will be informed by a message in the Upload Details screen.

Downloading a Program to the Timeswitch

Downloading a program to the timeswitch can only be done after connecting to it. If you have not connected the timeswitch to your PC yet or have not initiated the link between the timeswitch and your PC then you should review "Connecting the Hardware" and the "Connection Tab" sections.

NOTE: If you have a program in the timeswitch's memory, downloading the program from the PC will overwrite it and it will be lost. Be sure to save any programs you want to keep.

The Download screen is very simple, all you have to do is click the Download button and provided the timeswitch is properly connected and linked to the PC it will download the program from the PC's memory into the timeswitch.

After the download is complete, you will be informed by a message in the Download Details screen. This program is now ready to run on the timeswitch.