

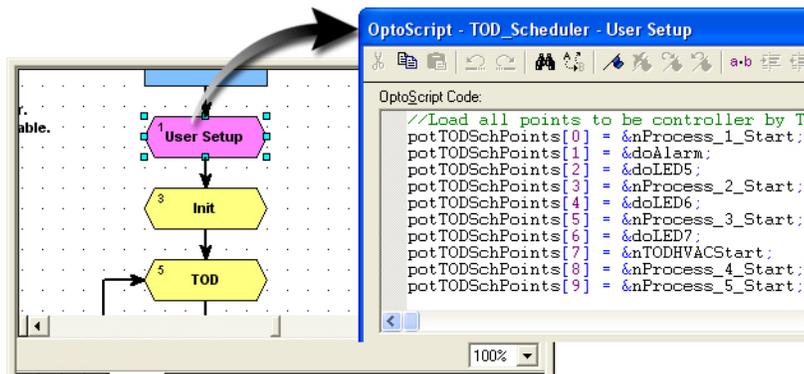
# Time of Day Scheduler Example

The Time of Day (TOD) Scheduler is provided to help you get started using TOD scheduling. The example zip file, PACTODrv85a.zip, includes a PAC Control Strategy and a PAC Display project as follows:

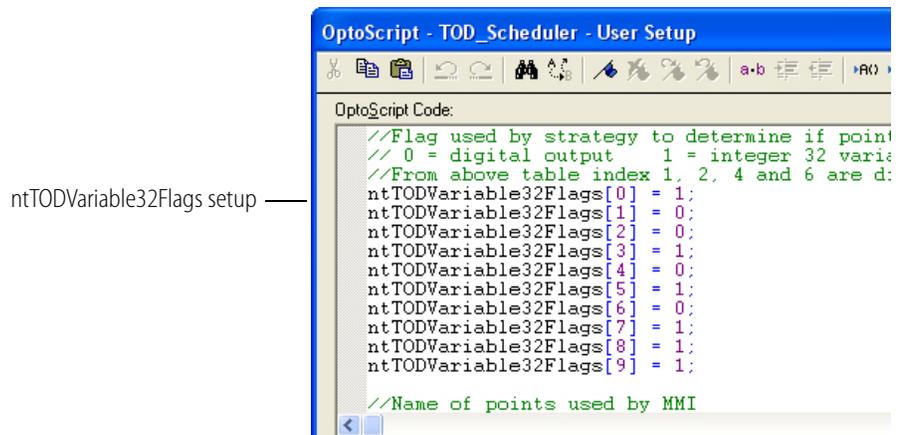
- PAC Control strategy, PACTOD.idb
- PAC Display project, PACTODScheduler.UUI

## Using the PAC Control Strategy

To add points that need scheduling, double-click the User Setup block and edit the OptoScript text. The points can be digital outputs or integer 32 variables.



The numeric table, ntTODVariable32Flags, identifies which indexes of the pointer table are integer 32 variables. In the User Setup OptoScript block, enter the name of the points that will be displayed in the provided PAC Display project in the table stTODMMIName.



## Using the PAC Display Project

The main display window shows the following things:

- Date, time, and Julian day of the controller
- Tables showing the Holidays and TOD schedules
- Point names, status, and overrides

The screenshot shows the 'Main' window of the PAC Display Project. At the top, there are two buttons: 'Add Holiday Schedule' and 'Add TOD Schedule'. Below these are input fields for 'Date =', 'Time =', and 'Julian =', along with a 'Holiday Active' indicator and a 'HELP' button. The window is divided into three main sections:

- Top Left Table (Holiday Schedule):** A table with columns 'Index' and 'Holiday Schedule'. The index ranges from 0 to 13. A label 'Date, time, and Julian day' points to the input fields above it.
- Top Right Table (Point Data):** A table with columns 'Index', 'Point Name', 'Point Status', and 'Point Override'. The index ranges from 0 to 17. A label 'Point names, status, and overrides' points to this table.
- Bottom Table (TOD Schedule):** A table with columns 'Index' and 'TOD Schedule'. The index ranges from 0 to 15. A label 'TOD schedule' points to this table.

The PAC Display project allows you to do the following things:

- Add or delete Holidays. Holidays have one on/off time that if left at 00:00 will be off all day.
- Add, delete, or edit schedules. Each schedule supports up to four on/off sets per day and can be active on any day of the week.
- Assign points to a schedule or schedules

Things to know about using the project:

- If the date matches a Holiday schedule, "Holiday Active" will be visible above the Holiday schedule table box.

- For the point status, 0 = OFF and 1 = ON
- The point override is a table in the strategy used to override the schedule. There is no provided logic in the strategy to set or clear the override.
- From the Main window (see the previous page), an operator can manually set an override. When an override is set the point will be ON until the override is cleared. The point will then follow the schedule. If you want to override a point in the user portion of the strategy, in the point override table, set the index for that point to 1. To clear the override, set the index back to 0.
- Holidays are sorted by strategy.
- Any schedule changes will take effect when the minute changes.
- Click HELP to see a help window that explains how to use the scheduler.

## Using the Holiday Schedule

To add, edit, or delete a Holiday schedule:

1. Click Add Holiday Schedule.

The Holiday Schedule display window opens:

Month	Day	Start Time	Stop Time	Duration
##	/ ##	## : ##	## : ##	##

**ADD**      **Delete**      **Close**

Enter Holiday schedule. Strategy will auto sort the dates  
Start Time and Stop Time = 00:00 = Off all day  
If using Start Time and Stop Time. Start Time < Stop Time  
Duration in days  
Status =

2. If you are using Holiday start and stop times, enter a start time that is earlier than the stop time.
3. Enter the duration in days for the Holiday.

All Holidays plus duration must be within the same year.

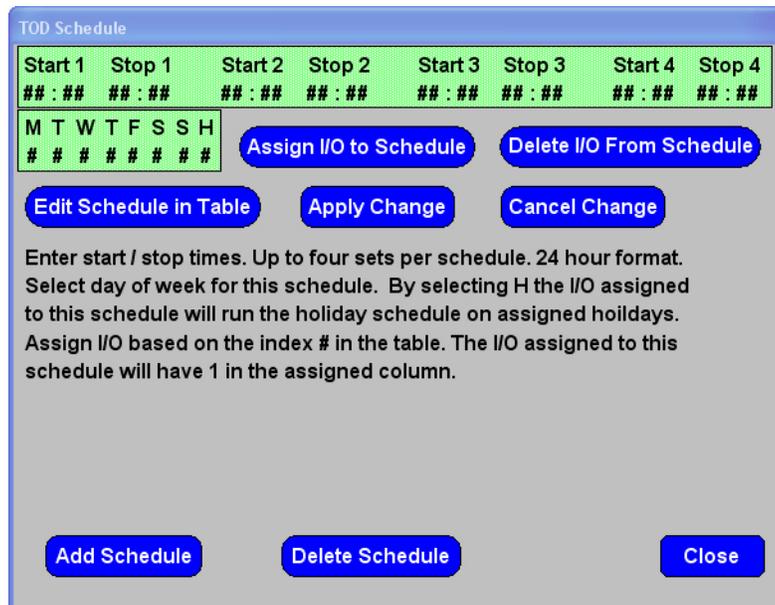
*NOTE: Leave Holiday Start and Stop time @ 00:00 for off all day.*

## Using the TOD Schedule

To add, edit, or delete a TOD schedule:

1. Click Add TOD Schedule.

The TOD Schedule window opens:



Start 1	Stop 1	Start 2	Stop 2	Start 3	Stop 3	Start 4	Stop 4
## : ##	## : ##	## : ##	## : ##	## : ##	## : ##	## : ##	## : ##
M	T	W	T	F	S	S	H
#	#	#	#	#	#	#	#

Buttons: Assign I/O to Schedule, Delete I/O From Schedule, Edit Schedule in Table, Apply Change, Cancel Change

Text: Enter start / stop times. Up to four sets per schedule. 24 hour format. Select day of week for this schedule. By selecting H the I/O assigned to this schedule will run the holiday schedule on assigned hoildays. Assign I/O based on the index # in the table. The I/O assigned to this schedule will have 1 in the assigned column.

Buttons: Add Schedule, Delete Schedule, Close

2. To enter the start and stop times, click on a pair of pound signs (##), up to four sets per schedule.
3. Click each day of the week you want included in the schedule.  
If you select H, the I/O assigned to this schedule will use the Holiday schedule on assigned Holidays.
4. To add I/O points to the schedule, click Assign I/O to Schedule.

## The Point Names, Status, and Overrides Table

This table lists I/O point names that are loaded in the TOD pointer table.

The Point Status column shows the current state of the I/O point. 1 = On

The Point Override column is used to turn on an I/O point that is off. 1 = On. A point will stay on until the override is set to 0.