

S3 Template Scheduler Instructions

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The "Template Scheduler-10" spreadsheet creates schedules for up to 10 employees for up to 52 weeks using a template of shifts and days off. The templates can be configured to have your people rotate days off (or not) and to rotate shifts (or not).

Watch for Cell Comments with Additional Instructions

Throughout the spreadsheet many of the column headers have comments (indicated by a small triangle in the upper right corner of the cell) describing the contents of the columns. To view the comment, simply place your cursor over the cell. **This cell has a comment as indicated by the small triangle in the top right corner.**

Office 2007/Excel 2007/Excel for the Mac Note:

This Excel workbook was created with Excel 2003 and is completely compatible with all PC versions of Excel from Excel 1997 to Excel 2007. When used in Excel 2007 it can be saved as either an Excel 1997-2003 workbook or as an Excel workbook with macros (an xlsm file). This workbook does not contain any information outside of the Excel 2003 range of 256 columns and 65536 rows so any Excel 2007 warnings about losing information outside of this range is erroneous and can be ignored. Since some versions of Excel for the Mac do not support vBasic code, this spreadsheet may not work properly on a Mac computer.

Navigation Note:

This spreadsheet has several sheets and there is room for only a limited number of sheet tabs at the bottom of the screen. You can display additional sheet tabs by clicking on the directional arrows on the left of the sheet tabs. Another way to display additional tabs is to hold the mouse cursor over the directional arrows and click the right mouse button. You can now select the sheet of interest from the table of sheet names. You can also go from one sheet to the next by holding down the control key and pressing the Page Down or Page Up key on the keyboard.

If you find that you do not need all of the sheets, you can hide the unwanted ones. If you prefer, you can delete the unwanted ones. **The following sheets contain input data and should not be deleted: Scheduling, ReSchedule, Daily Details.** Other sheets are schedule outputs and can be safely deleted.

A. Definitions

A schedule consists of shifts, legs, tours and campaigns as defined below:

Shift: A specified number of consecutive hours that an employee works in a 24 hour period.

Leg: A time period of one or more days in which daily shifts are assigned as defined in the "**Tour Definition Table**". One week and two week legs are common. This spreadsheet can have up to 100 days in a single leg.

Tour: A group of one or more legs assigned to your employees as defined by the "**Employee Rotation Table**".

Campaign: One or more tours. For example if your schedule is different in the Summer and in the Winter, you can define a "Summer" tour and a "Winter" tour. In this case Summer "Shifts" and "Legs" may be different than Winter "Shifts" and "Legs".

B. Scheduling Assistant.XLS

The "Scheduling Assistant" spreadsheet is provided as a companion to this one and can be used to create a "Tour Definition Table" to provide the exact number of people that you need on each shift each day of the week. You can create simple schedules where you need the same number of people on each shift each day of the week or you can create schedules where you need a different number of people on each shift each day. You can also create schedules that use both 8 and 12 hour shifts or any other combination of shifts that you would like to use.

A few typical 8, 10 and 12 hour shift templates are provided in the "Scheduling Assistant" spreadsheet that you can use as a basis for your "**Tour Definition Table**" and your "**Employee Rotation Table**".

We offer additional templates at our website in various template packages for 8, 10 and 12 hour shifts. The templates are structured to provide the same number of people each day. You can use a different template for each shift allowing a schedule with different staffing levels on each shift. If you need a schedule that does not provide the same number of people each day you can either create your template using the Scheduling Assistant or you can contact us to create a custom template for you.

C. Scheduling Sheet

On this sheet you define shifts in the "**Shift Definition Table**", assign shifts to "legs" in the "**Tour Definition Table**" and then assign "legs" to your employees in the "**Employee Rotation Table**". The "**Schedule Start Date**" and the "**Number of Days in a Leg**" can be input at the top of the Scheduling Sheet. Legs are typically 7 days (a week) long but can be any length up to 100 days to accommodate longer work patterns.

Shifts are defined in the "**Shift Definition Table**". Shifts are defined by indicating a shift name, a start time, a stop time and the number of paid hours in the shift. If you want the hours associated with vacations and other miscellaneous shift assignments to be counted on the schedules you can add the miscellaneous shift with a number in the "Paid Hours" column.

The "**Tour Definition Table**" is where each leg of the tour is defined. You need to give each leg a "name". The name can be a number such as 1, 2, 3, or it can be more descriptive such as Day-1, Day-2, etc. A leg is defined by a series of shift names and blanks (for days off). See the example templates in the "Scheduling Assistant" spreadsheet to see what a typical Tour Definition Table looks like. Schedule "Legs" can be up to 100 days long (per the number you input in the "**Number of Days in a Leg**" cell. Unused columns in the Tour Definition Table are hidden and you need to only insert shifts in the visible columns.

Below the "Tour Definition Table" is the "**Employee Rotation Table**" where you input employee names and employee groups (optional). You also assign "Legs" to each employee for up to 100 time periods. Since the spreadsheet creates schedules for up to 52 weeks, columns that extend beyond the 52 week period are hidden. If, for example, your schedule has 7 day legs, 52 columns will be available for you to assign schedule legs to your employees. If, on the other hand you are using 4 day legs, $364/4= 91$ columns will be visible and available for "Legs".

Your employees will work legs, and the shifts in those legs, in the order in which you input them in the Employee Rotation Table. If, for example, you have defined 4 week-long Legs named 1, 2, 3 & 4 and you need one person to be working each of the 4 legs each week your employee #1 should be assigned legs 1,2,3,4 over a 4 week period. Employee #2 should be assigned legs 2,3,4,1 and employee #3 should be assigned legs 3,4,1,2 and employee #4 should be assigned legs 4,1,2,3. This pattern should then be repeated for each 4 week block until you have defined a 52 week schedule. If you input this pattern into the Employee Rotation Table someone will be working each of your 4 legs each week.

If you want to be sure that your daily shift coverage is what you need it to be you can check the charts on the "**Coverage Charts**" sheet that will give you a quick check on your daily staffing levels. If the charts are not right you will need to adjust the Employee Rotation Table or maybe the Tour Definition Table.

A macro button is located just above the Employee Names column to alphabetically sort employee names. Click this macro button if you would like to sort employee names along with the "Group" and "Legs" you have assigned to them. When you sort with this macro the names and shifts are also sorted on the ReSchedule sheet, Overtime Log sheet and E-Mail sheet. If you sort names on this sheet without using this macro then just the names on the various Sheets will be sorted, but the other information will not be sorted and will be incorrect. Whenever this macro is run, the "Update Overtime Ledger" macro on the Overtime Log Sheet is also run to preserve any overtime hours you have recorded for your employees.

D. ReSchedule Sheet

After you have created your schedule on the "Scheduling" sheet you can modify it on this sheet. Your employees are shown in columns across the top of the sheet along with 364 rows showing the shifts assigned to each employee each day for 52 weeks. There are 2 columns under each employee with the left column showing the assigned shift and the right column is blank. The blank columns have drop-down menus containing the shifts you have defined in the "Shift Definition Table". You can change daily shift assignments for an employee by selecting a shift from the drop-down menu. After you assign a new shift it will appear in the left column and become part of the employee's schedule on the various output calendars and schedules. Vacations, shift-swaps and other schedule modifications can be easily taken care of on this sheet.

On the left side of this sheet are 5 columns with drop-down menus that you can use to select shifts to be counted each day to show you the number of people assigned to the shift. The counting **cells are formatted to turn gray** if the daily shift count is less than it was in the original schedule as defined by the tables on the Scheduling sheet. The counting cells are also **formatted to turn pink** if the daily count is less than the daily minimum staffing levels you have specified on the "**Daily Details**" sheet.

There is a check box at the top of the sheet that you can use to "**Allow Half-Shifts**". If this option is checked, the drop-down menus will display half shifts that you can assign to your employees. The "-A" half shift is the first half of the shift and the "-B" half shift is the second half of the shift. These are useful if you have employees who agree to stay late or to come in early to cover for an absent employee. The shift counting columns will count an "-A" half-shift plus a "-B" half-shift as a whole shift. Employee hours shown on the "Scheduling" sheet and on the "**Individual Schedules**" sheet include the hours associated with the half-shifts assigned to each employee.

Another check-box at the top of this sheet, "**Count New Shifts in OT Calculations**", gives you the option of having all shift assignments that you make on this sheet be included in the employees overtime hours tracked on the "OT Log" sheet.

A macro button is provided at the top of the sheet for you to use if you want to delete all shift reassignments (the right-hand columns under the employee names) in preparation for another year's schedule.

E. OT Signups Sheet

Shifts that are not covered due to changes you have made on the **ReSchedule sheet** are shown on this sheet. There is a **check-box** at the top of the sheet to allow you to change the OT sheet to only show shifts that fall below the daily minimum you have specified on the **Daily Coverage sheet**. After you select the week from the drop-down menu at the top of the sheet you need to click the "Show Signup Sheet for the Week" macro button to reveal all of the overtime shifts available. This sheet can be posted to allow people to sign-up for the available OT shifts.

Shifts available for OT signups are limited to the first 10 shifts listed in the **Shift Definition Table** on the Scheduling sheet and to a maximum of 10 people per shift each day.

F. Scheduling Output Sheets

Schedules of 52 weeks duration are shown on the **Individual Schedules Sheet** for each employee. The **All Schedule sheet** has a table showing shift/location assignments each day that can be filtered to display only selected shift/locations, employees and dates. A calendar is shown on the **Calendar Sheet**. You can select the calendar start day and date from drop-down menus in the light green cells at the top of the sheet. You can also have the option of keeping employee names on the same calendar row with a blank displayed for days the employee is not scheduled. Shifts assigned to each employee for 52 weeks are shown on the **Group Schedule Sheet** and a 4 week group schedule is shown on the **Group Schedule-2 sheet**.

The **Pocket Calendar** shows the individual schedule for each employee in a format that can be printed, trimmed and folded in half to provide a credit card-sized schedule for the employee to carry with him for handy reference when making dentist appointments etc.

G. ECalendar Sheet

When you click the macro button at the top of the Calendar sheet, the **ECalendar sheet** will be populated with the information on the Calendar sheet and sent via e-mail to your employees. Insert your employees e-mail address next to their name on the **E-Mail sheet** if you want them to be eligible to receive the calendar. You may also insert other recipient e-mail addresses in the table if there is room. Be sure to select employees to receive the calendar by clicking on the individual check boxes, or you can choose the "Send to Everyone" option.

The **ECalendar sheet** will be sent to your recipients as a single sheet Excel workbook. If any of your recipients do not have the Excel software, they can download a free Excel viewer from Microsoft at:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=c8378bf4-996c-4569-b547-75edbd03aaf0&displaylang=EN>

Your e-mail client will probably alert you that a program is attempting to send a message and you will need to click "Yes" in order to send each message. This is okay for a few messages, but if you are sending schedules to all of your people, this can become bothersome and time-consuming. You can change the security settings for your e-mail client to allow a program to send e-mail messages without asking your permission. The down-side of changing the security settings is that some not-so-friendly program can flood the world with spam from your computer. You need to decide if the reward is worth the risk. Instructions on how to adjust the Windows security settings for Outlook Express, Outlook and Windows Mail can be found at:

If you use **Outlook Express or Windows Mail** as your default mail program you can turn off this warning as follows:

- 1: Start Outlook Express or Windows Mail, and then on the Tools menu, click Options.
- 2: Click the Security tab, and then click to remove the check mark from the "Warn me when other applications try to send mail as me" check box.
- 3: Click OK to close the Options dialog box.

If you use **Outlook 2007** you can learn about changing your Trust Center settings at:

<http://msdn2.microsoft.com/en-us/library/ms778202.aspx>

If you use **Outlook 2000-2003** you must use a third party program to avoid the warning. Two of these third party programs can be found at

<http://www.contextmagic.com/express-clickyes/>

<http://www.dimastr.com/redemption/>

H. vCalendar Sheets

The scheduling information can be saved as a file using the vCalendar data format that can be imported into MS Outlook or other software that can read vCalendar files. The file includes a "summary" field that shows the employee's name and the shift assignment and a "categories" field that displays "Shift". A full 52 week schedule for a single employee is created on the **vCalendar-1 sheet** and is saved in the vCalendar file. Select the employee's name from the drop-down menu and click the "Create the vCalendar Now" macro button to create the file for the selected employee. The macro will save scheduling spreadsheet under it's current name and then save the vCalendar file in your scheduling directory with the name shown in the cell below the macro button. After the vCalendar file is created, the spreadsheet will close. A seven day schedule for all employees is created on the **vCalendar-2 sheet**. Select the first day of the schedule from the drop-down menu and click on the macro button to create the seven day file for all employees. The hidden **vCal Out sheet** appears blank, but is used in the creation of the

If there is already a file in your scheduling directory with the same name as the vCalendar file being created by the macro, Excel will ask if you want to replace the old file with the new one. If you select "No" the macro will display an error message. Simply select "End" and the macro will stop. Also, after the vCalendar file is saved, Excel will ask you if you want to save the changes in the ????????.vcs file. You can select either "Yes" or "No" since the old file is the same as the new file.

I. Importing the .vcs file into MS Outlook

In MS Outlook select **F**ile, **I**mport and **E**xport. Then choose "Import an iCalendar or vCalendar file (.vcs) and browse to your scheduling directory or other folder where you have stored the vCalendar file. Select file type = vCalendar and all of the .vcs files will be displayed. Click on the one you want to import and then click "Ok". The procedure to import a file into a PDA or other device is probably similar, but you may need to check your operating manual.

If you receive an error when importing the .vcs file into MS outlook, it is probably due to miscellaneous punctuation marks in the "SUMMARY" line in the .vcs file. When Excel saves a worksheet as a text file, it puts quotation marks (" ") around lines containing certain punctuation marks such as a comma (.). MS Outlook can't import the lines with the quotes and will give you an error message. You can open the .vcs file with Notepad or other text editor and search for the lines containing quotation marks to locate the miscellaneous punctuation marks causing the problem.

The spreadsheet will convert employee names in the format "Last Name", "First Name" into "First Name" "Last Name" (without the comma) format in the .vcs file, so you can use employee names in the Last Name, First Name format.

J. Overtime Log Sheet

The **Overtime Log Sheet** allows you to keep track of overtime hours assigned to each employee and shows you at a glance people who are available for an overtime shift. You enter overtime hours in the "**Overtime Ledger**" and the program shows employees with the least overtime and those with the most overtime. The "**Date for Overtime Candidates Check**" box is where you put the date that you want to assign an overtime shift. Employees with the fewest overtime hours will be shown in the "**OT Candidates Table**". If two or more employees have the same number of overtime hours, the employee closer to the top of the "**Employee Rotation Table**" on the **Scheduling Sheet** will be shown first. The "**OT Candidates Table**" shows shifts that each candidate has been assigned on the date of interest as well as shifts assigned on the previous day and the next day. The "**Leading OT Employees Table**" shows which people have been assigned the most overtime for the period.

The "Overtime Ledger" is 364 rows (52 weeks) long and the first date of the ledger is input in the light-green cell at the top of the date column. If you want to keep track of overtime assignments from one year to the next, or if your initial schedules included overtime hours, you can put the overtime Carryover in the first row of the Overtime Ledger and it will be included in the OT Hours shown in the OT Candidates and the Leading OT Employees tables. The "Update Overtime Ledger" Macro can be run anytime that you want to accumulate all overtime assignments in the "Carryover" row and update the "First Day of Overtime Tally Date" to today's date.

K. Daily Details

The data on the Daily Details Sheet shows the shift coverage on a daily basis and is used in the charts on the Coverage Charts Sheet. Rows are provided at the top of this sheet where you can specify the minimum number of people you need on each shift. If the number of people scheduled is less than the minimum specified, the daily value will turn Rose-colored. You can add people to a shift on the Unfilled Shifts sheet.

L. Coverage Charts Sheet

Three charts are provided on the Coverage Charts sheet show how many people are assigned to the selected shifts for each day of the schedule. You can select the shift to be plotted from the drop-down menu near the top of each chart.

M. Password Protected Sheets

All of the sheets have protected cells (cells that you may not use to input data). All of the unprotected cells for use in storing data are light green in color. Each worksheet is protected to prevent you from overwriting the information in the protected cells. We advise that you leave the worksheets protected unless you want to make changes on a worksheet that can not be made if the sheet is protected. For example, if you want to hide or unhide rows and columns or change cell colors you will need to unprotect the sheet (Tools, Protection, Unprotect Sheet). Be sure that you do not change the contents of the protected (non-light green) cells. You can, however, change the color, formatting, etc of the protected cells. After you have made the changes, be sure to protect the sheet (Tools, Protection, Protect Sheet). Many of the macros protect and unprotect various sheets and if you have added a password to the sheet protection sequence any macros requiring access to that sheet will not run properly and will end in an error message.

N. Cautions

Do not add or delete rows or columns on any of the worksheets, for it may corrupt the spreadsheet logic. Rows and columns may be hidden if you do not need them or do not want to see them.

If cells with input data are hidden (the light green cells), any data contained in those cells will still be used by the spreadsheet.

O. Technical Support

Technical Support is available by phone, fax or e-mail during normal business hours.

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