

## Shift Scheduling Spreadsheets

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# Employee Shift Scheduling for Excel

<http://spreadsheetml.com/shiftschedules/shiftscheduling.shtml>

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## ConnectCode's Shift Scheduling Templates

*Have you thought about how often you use or reuse your shift scheduling spreadsheets? Everyday, day after day, shift after shift and spreadsheet after spreadsheet. We definitely have. This is why we build our shift scheduling templates to be reusable, customizable and easy to understand. We also test our templates vigorously with different scenarios so that you can be assured of their accuracy and quality, and that you can save significant amount of time by reusing them. We also provide comprehensive documentation on the templates so that you do not need to guess or figure out how we have implemented the spreadsheets.*

*All our template models are in black-and-white. We believe this is how a professional shift scheduling template should look like and also feel that this is the easiest way for you to understand and use the templates. All the input fields are marked with the '\*' symbol for you to identify them easily.*

*Whether you are a project manager, restaurant owner or human resource personnel. Or whether you are a student aspiring to join the management world or an entrepreneur needing to manage schedules, we hope that you will find this package useful as we have spent our best effort and a lot of time developing them.*

*Yours sincerely,  
ConnectCode*

# 1. Shift Scheduling

## 1.1 Background

The term Shift Work is used to describe an organization practice of using the 24 hours of the day to rotate employees. For example, a working day may be divided into three shifts with three employees each covering 8 hours per shift. The main aim of shift work is to increase the productivity of the organization through the effective use of human capital.

Historically, shift work started out from the manufacturing industry but it is now widely-used in other industries e.g. the service industry. For example, a hospital or clinic may require the nurses and doctors to rotate shifts to ensure patients are well taken care of at all times. A restaurant may require their waiters and waitresses to work on shifts to ensure the restaurant is always open during peak hours to maximize revenue.

Some organizations have more complex shift requirements. They may require their employees to work on weekends or have minimum and maximum hours. An employee may also be entitled to 2 days off per week; and the annual holidays of the employees will be accounted for.

Scheduling employee shifts can be a complex and difficult task. This is especially the case when there is a large number of employees and shift constraints. On top of that, shift work has never been popular and employees' morale problems must be handled with care.

With the introduction of computer systems, shift managers can now use dedicated software and algorithms to automatically generate shift schedules on weekly or monthly basis. The manager can review and make adjustments to the schedules before disseminating them.

## 2. Shift Scheduling Spreadsheet

### 2.1 Overview

This spreadsheet creates a monthly calendar of shift assignments to employees. The shift schedules can be printed easily and the assigned number of monthly shifts and hours of each employee are calculated automatically in a summary worksheet. This spreadsheet can be used to assign up to 20 employees and 8 different shifts over a period of one month.

Shifts	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6	7
Morning		Michael	Mark	Michael	Mark	Michael	
Afternoon		Mark	Anthony	Mark	Anthony	Mark	
Evening		Tony	Steve	Tony	Steve	Tony	
Night		Anthony	John	Anthony	John	Anthony	
	8	9	10	11	12	13	14
Morning		James	Mark	Michael	Mark	Michael	
Afternoon		Anthony	Anthony	James	Anthony	Mark	
Evening		Steve	James	Tony	John	Tony	
Night		John	John	Anthony	James	Anthony	

### 2.2 Shift Scheduling Inputs

The diagram below shows the "Input Parameters" worksheet. The various parameters supported by this worksheet are described below.

	A	B	C	D	E
1	SpreadsheetML.com Employee Shift Scheduling				
2					
3	Start Date*	12/5/2010			
4	Employees Names (maximum 20)*		Shift Names (maximum 8)*		Hours*
5		Michael		Morning	6
6		Mark		Afternoon	6
7		Tony		Evening	6
8		James		Night	6
9		Anthony			
10		Steve			
11		John			
12					
13					

- **Start Date\*** - The Start Date of the shift schedule. A monthly calendar will be generated in the "Shift Assignments" worksheet based on this date.
- **Employees Names** - The names of the different employees to be assigned to the shifts. It is recommended to use name initials up to 9 characters.

- Shift Names – The names of the shifts that will appear in the “Shift Assignments” worksheet. It is recommended to use shift initials up to 9 characters.
- Hours – The number of hours for the specified shift. This will be used to calculate the total number of hours that an employee has put in over a month.

## 2.3 Shift Assignments

This is the worksheet for assigning shifts to different employees. The monthly calendar and the shift names are automatically generated from the input worksheet.

	A	B	C	D	E	F	G	H
1								
2	December-10							
3								
4	Shifts	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5		1	2	3	4	5	6	7
6	Morning		Michael	Mark	Michael	Mark	Michael	
7	Afternoon		Mark	Anthony	Mark	Anthony	Mark	
8	Evening		Tony	Steve	Tony	Steve	Tony	
9	Night		Anthony	John	Anthony	John	Anthony	
10								
11								
12								
13								
14		8	9	10	11	12	13	14
15	Morning		James	Mark	Michael	Mark	Michael	
16	Afternoon		Anthony	Anthony	James	Anthony	Mark	
17	Evening		Steve	James	Tony	John	Tony	
18	Night		John	John	Anthony	James	Anthony	
19								
20								
21								

Different employees can be assigned to the shifts through a drop down list in each of the cell in the calendar as shown in the diagram below. The copy-and-paste function of Excel can also be used to assign the schedules.

Wednesday	Thursday	Friday
4	5	6
Michael	Mark	Michael
Mark	Anthony	Mark
Tony	Anthony	Tony
Anthony	Steve	Anthony
	John	

## 2.4 Shift Schedules Summary

This worksheet summarizes the shift schedules by calculating the total number of shifts and hours put in by the different employees. All the values are automatically calculated based on the "Shift Assignments" worksheet.

	A	B	C
1			
2	<b>December-10</b>		
3			
4	Employee Names	Number of Monthly Shifts	Number of Monthly Hours
5	Michael	5	30
6	Mark	8	48
7	Tony	5	30
8	James	4	24
9	Anthony	10	60
10	Steve	3	18
11	John	5	30