

## Standalone Perpetual Calendar Description

### Introduction

This document describes the parts of the standalone perpetual calendar. Sufficient detail is provided to enable making an Excel spreadsheet for the template in the pdf document. There is no need to make an Excel spreadsheet unless you want to make modifications to the template.

To start the spreadsheet set all row heights to 15 and all column widths to 3. Then change the following rows to a height of 7.5: 27, 32, 49, 62, 65 and 70. When moving the window to bring a part of a table into the window, the horizontal alignment is near perfect, but the vertical alignment can be a little off. Therefore, the width of a window is equal to the total width of the columns in the window. To have some room for tolerance, the height of a window is equal to total height of the rows in the window plus one row with a height of 15. When a table is centred perfectly in a window there is row height of 7.5 from the bottom of the table to the bottom of the window and the same distance from the top of the table to the top of the window.

The Page Setup parameters for printing the spreadsheet are:

Orientation: Landscape

Scaling: Adjust to 50% of normal size

Top Margin: 0.5

Bottom Margin: 1.5

Left and Right Margins: 0.2

Header and Footer: 0.8

### Using Excel to make graphics

I use Excel to make my graphics. It is certainly not a powerful graphics program, but it is widely available and easy to use. Excel features that are useful for making perpetual calendar tables include: a wide range of fonts available, the capability to draw borders around selected cells, the capability to scale the document when printing, the capability to change row heights and column widths, and the capability to merge cells. A disadvantage of Excel is that row heights are usually set as points, where 1 point = 1/72 inches, and column widths are usually set as the number of zero characters ("0") that will fill the cell. The website <https://www.officetuto.com/column-width-and-row-height-units-in-excel/> describes a procedure for changing the units to inches or centimeters, but it is complicated. By adjusting cell heights and widths in the usual way and by scaling, I am able to obtain piece sizes close what I would make them if I were able to set exact dimensions. If you want to keep row heights and column widths when doing a copy and paste, you have to copy the whole spreadsheet and paste it into a new spreadsheet. Then delete the parts you pasted that you do not want. The other alternative is to copy and paste the area you want and adjust row heights and column widths after pasting. I usually start my spreadsheets by setting all row heights to 15 and all column widths to 3. This makes the cells close to square.

### Description of parts and tables

The main parts are a piece that is fixed in place and a moving window. The moving window, which actually has three windows, is in the top part in Figure 1 below and the piece that is fixed in place is the bottom part. There are two year tables, a day-of-week table (SWTWTFS) and three windows on the moving window piece. There are two month tables and a day-of-month

table (numbers 1 to 31) on the piece that is fixed in place. All commercially available slider calendars that I am aware of have a face with a day-of-week table and one window, and a slider with a day-of-month table. They are not standalone. The unique features of my standalone perpetual calendar are the year table and the month table.

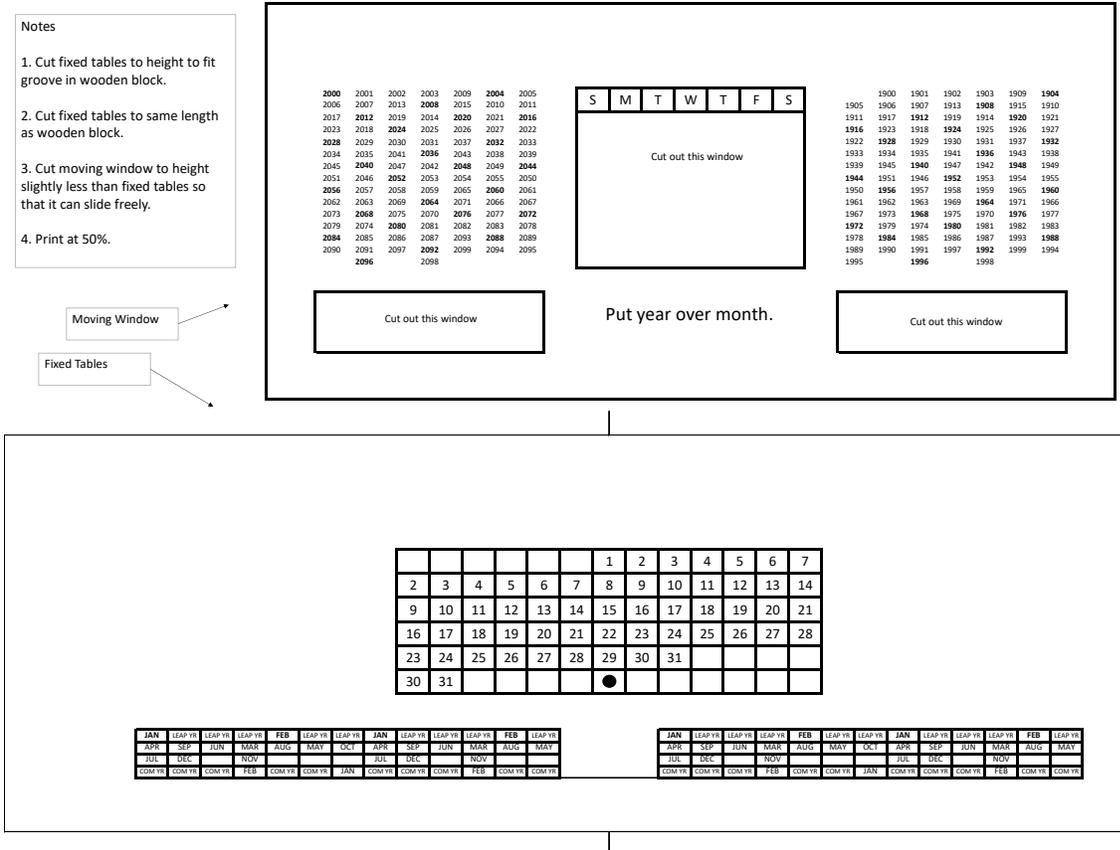


Figure 1: The two pieces of the standalone perpetual calendar.

In Figure 1, the top piece moves and the bottom piece is fixed in place. The top piece is moved to put the column that has the year of interest over the column that has the month of interest. The excel cells of the outlines of the two pieces are as follows:

Location	Top Piece	Bottom Piece
Upper Left Corner	R3	B40
Lower Left Corner	R36	B74
Upper Right Corner	BQ3	BW40
Lower Right Corner	BQ36	BW70

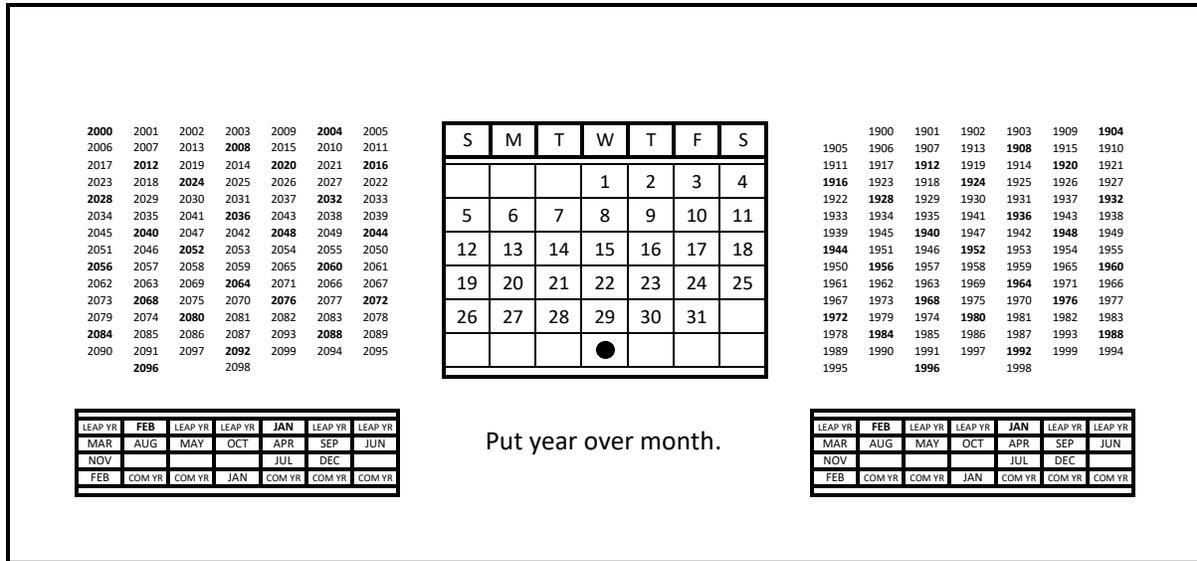


Figure 2: Assembled calendar set for January or October 2025 (The parts of the bottom piece that extend beyond the window are not shown)

In the month tables on the bottom piece, the top row applies to January and February of a leap year, the middle two rows apply to March to December of all years, and the bottom row applies to January and February of a common year. To bring attention to leap years, JAN and FEB are in bold in the top row and leap years are also in bold in the year table. The calendar always displays 31 days for the month, with 29, 30 and 31 to be ignored as applicable. The figures below show details of the tables and windows on the two pieces. The procedure to create these figures is as follows:

1. In the Excel spreadsheet for page setup for printing, temporarily check the boxes for printing gridlines and row and column headings.
2. Select the area of the spreadsheet you want to copy into Word.
3. Under Copy, select “Copy as Picture”, “As shown when printed”, “OK”.
4. Paste into Word and make the size smaller or larger if necessary

	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10							<b>2000</b>	2001	2002	2003	2009	<b>2004</b>	2005						
11							2006	2007	2013	<b>2008</b>	2015	2010	2011						
12							2017	<b>2012</b>	2019	2014	<b>2020</b>	2021	<b>2016</b>						
13							2023	2018	<b>2024</b>	2025	2026	2027	2022						
14							<b>2028</b>	2029	2030	2031	2037	<b>2032</b>	2033						
15							2034	2035	2041	<b>2036</b>	2043	2038	2039						
16							2045	<b>2040</b>	2047	2042	<b>2048</b>	2049	<b>2044</b>						
17							2051	2046	<b>2052</b>	2053	2054	2055	2050						
18							<b>2056</b>	2057	2058	2059	2065	<b>2060</b>	2061						
19							2062	2063	2069	<b>2064</b>	2071	2066	2067						
20							2073	<b>2068</b>	2075	2070	<b>2076</b>	2077	<b>2072</b>						
21							2079	2074	<b>2080</b>	2081	2082	2083	2078						
22							<b>2084</b>	2085	2086	2087	2093	<b>2088</b>	2089						
23							2090	2091	2097	<b>2092</b>	2099	2094	2095						
24							<b>2096</b>			2098									
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			

The years are in two merged horizontal cells. The font is Calibri 11.

Figure 3: Left side year table and window on top piece.

If you imagine that the columns in a year table are labeled Sunday to Saturday from left to right, common years are under the day of the week that January 1 falls on and leap years are under the day of the week after the day that January 1 falls on. In a month table, the months are in columns that the day of the week that first of the month falls on relative to the day of the week that the first of January falls on.

To reduce the height of the year tables, there are no empty cells. Thus, the first three rows in the left-hand year table are:

<b>2000</b>	2001	2002	2003	2009	<b>2004</b>	2005
2006	2007	2013	<b>2008</b>	2015	2010	2011
2017	<b>2012</b>	2019	2014	<b>2020</b>	2021	<b>2016</b>

If there were empty cells, the table would be

<b>2000</b>	2001	2002	2003		<b>2004</b>	2005
2006	2007		<b>2008</b>	2009	2010	2011
	<b>2012</b>	2013	2014	2015		<b>2016</b>
2017		2019		<b>2020</b>	2021	

Finding a year in a compacted table is a little more difficult than in a table that is consecutive with blanks. However, keeping the height of the standalone perpetual calendar at the bottom as low as possible enhances the overall appearance of the small perpetual calendar.

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																

The days of the week are in four merged cells. The font is Calibri 18. The font for the caption below the window is Calibri 24.

Figure 4: Day of week table and centre window on top piece.

	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10				1900	1901	1902	1903	1909	<b>1904</b>										
11		1905	1906	1907	1913	<b>1908</b>	1915	1910											
12		1911	1917	<b>1912</b>	1919	1914	<b>1920</b>	1921											
13		<b>1916</b>	1923	1918	<b>1924</b>	1925	1926	1927											
14		1922	<b>1928</b>	1929	1930	1931	1937	<b>1932</b>											
15		1933	1934	1935	1941	<b>1936</b>	1943	1938											
16		1939	1945	<b>1940</b>	1947	1942	<b>1948</b>	1949											
17		<b>1944</b>	1951	1946	<b>1952</b>	1953	1954	1955											
18		1950	<b>1956</b>	1957	1958	1959	1965	<b>1960</b>											
19		1961	1962	1963	1969	<b>1964</b>	1971	1966											
20		1967	1973	<b>1968</b>	1975	1970	<b>1976</b>	1977											
21		<b>1972</b>	1979	1974	<b>1980</b>	1981	1982	1983											
22		1978	<b>1984</b>	1985	1986	1987	1993	<b>1988</b>											
23		1989	1990	1991	1997	<b>1992</b>	1999	1994											
24		1995		<b>1996</b>		1998													
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			

The years are in two merged horizontal cells. The font is Calibri 11.

Figure 5: Right side year table and window on top piece.

	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
48																												
50																												
51															1	2	3	4	5	6	7							
52																												
53																												
54																												
55																												
56																												
57																												
58																												
59																												
60																												
61																												
62																												
63																												

The days of the month are in four merged cells. The font is Calibri 18.

Figure 6: Day of month table on bottom piece.

	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
64																												
66																												
67																												
68																												
69																												
70																												
71																												

The months are in two merged horizontal cells. The font for months is Calibri 11. The font for “LEAP YR” AND “COM YR” is Calibri 9.

Figure 7: Month table in lower left of the bottom piece

	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP
64																												
66																												
67																												
68																												
69																												
70																												
71																												

Figure 8: Month table in lower right of the bottom piece