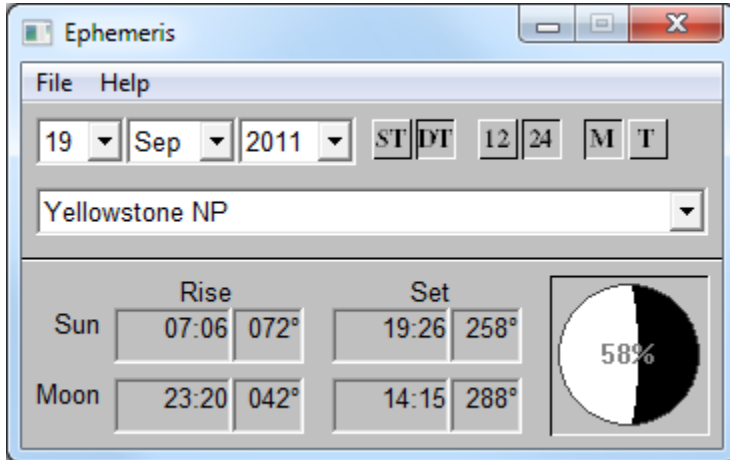


## In the Right Place, at the Right Time

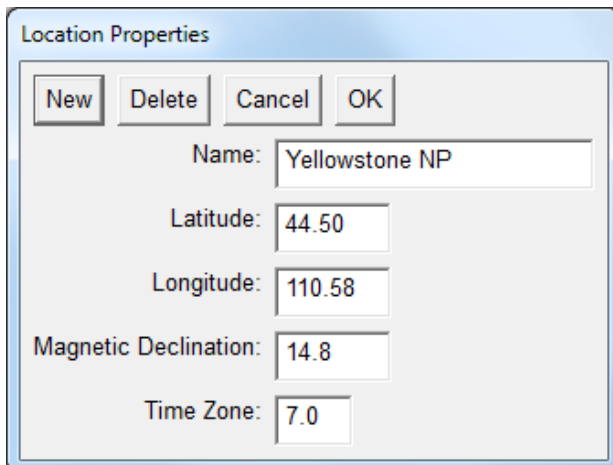
by Dennis Goulet

Many of us enjoy photographing sunrises and sunsets, and have admired images of the moon sitting above a rugged mountain range. One tool I use quite often to determine when and where the moon or sun will rise or set is called Ephemeris 2.0. The software tool is available free from Digital Light & Color ([www.dl-c.com](http://www.dl-c.com)).

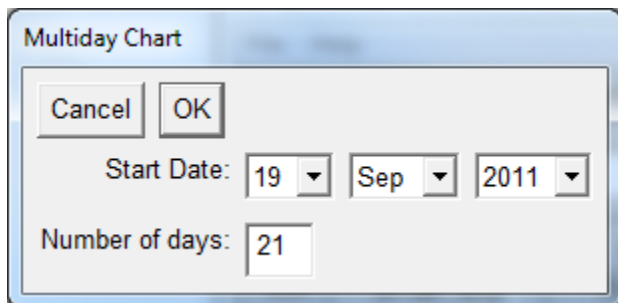


Ephemeris provides both the time and compass bearing to the point where the sun or moon will hit the horizon. Knowing this, especially for places you have not been to before, can certainly help determine a good place to set up for sunrise or sunset. One thing I do when traveling to new places is to drive around during the day when I arrive (if the light is not best for image making) to find where I want to be for the next dawn or sunset. Using a compass, and the map of the area, I can determine where the sun will rise, and where it will cast its gorgeous light.

After the small software file is downloaded and installed, the user enters the location from a comprehensive built-in database. You can create and add new locations to the database using readily available geographical data. The Help files provide great instruction on using the tool and websites for the “readily available” location data.



Ephemeris 2.0 include the capability to generate a multi-day chart for a location that lists rise and set times and bearings, but also the phase of the moon on each date. I use this when planning a trip to be able to select locations that will offer great evening or morning scenics that include the moon.



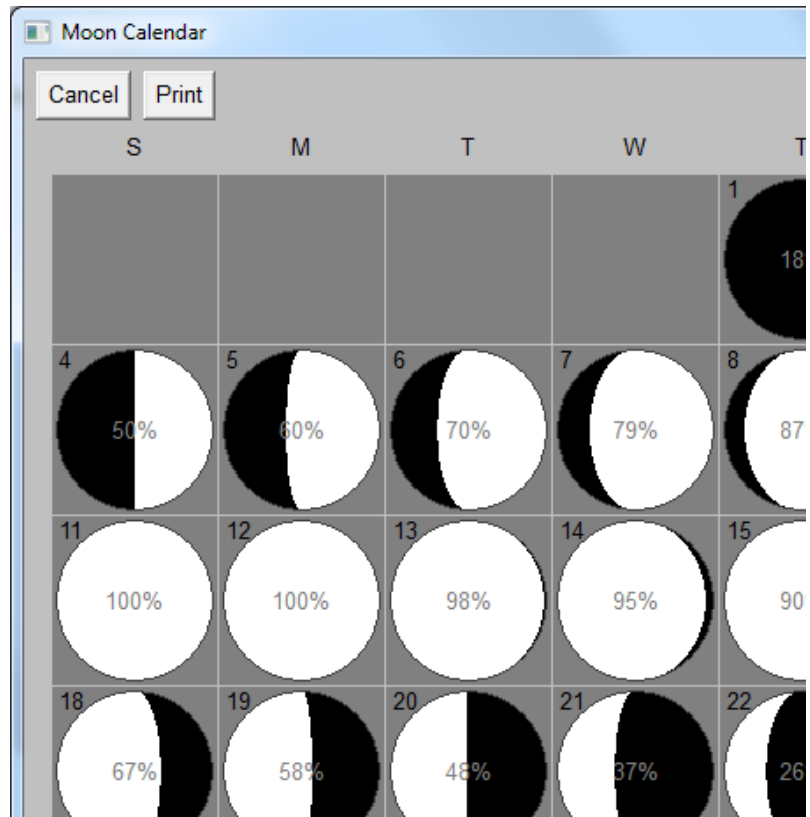
Date	Sunrise	Sunset	Moonrise	Moonset	%illum
19-Sep-11	07:06 072°	19:26 258°	23:20 042°	14:15 288°	58%
20-Sep-11	07:07 073°	19:24 257°		15:04 287°	48%
21-Sep-11	07:08 073°	19:22 257°	00:18 044°	15:47 284°	38%
22-Sep-11	07:09 074°	19:20 256°	01:22 047°	16:25 279°	28%
23-Sep-11	07:10 074°	19:18 256°	02:32 053°	16:59 273°	18%
24-Sep-11	07:12 075°	19:16 255°	03:46 059°	17:30 266°	10%
25-Sep-11	07:13 076°	19:14 254°	05:01 067°	17:59 258°	4%
26-Sep-11	07:14 076°	19:13 254°	06:19 076°	18:28 250°	0%
27-Sep-11	07:15 077°	19:11 253°	07:38 084°	18:59 242°	0%
28-Sep-11	07:16 077°	19:09 253°	08:59 092°	19:33 234°	2%
29-Sep-11	07:18 078°	19:07 252°	10:18 099°	20:12 228°	7%
30-Sep-11	07:19 078°	19:05 252°	11:35 104°	20:58 224°	15%
01-Oct-11	07:20 079°	19:03 251°	12:45 107°	21:51 222°	24%
02-Oct-11	07:21 079°	19:01 251°	13:45 108°	22:51 222°	35%
03-Oct-11	07:22 080°	19:00 250°	14:35 106°	23:55 225°	45%
04-Oct-11	07:24 080°	18:58 250°	15:16 102°		56%
05-Oct-11	07:25 081°	18:56 249°	15:50 097°	01:01 229°	66%
06-Oct-11	07:26 081°	18:54 249°	16:19 092°	02:06 235°	75%
07-Oct-11	07:27 082°	18:52 248°	16:44 085°	03:10 241°	83%
08-Oct-11	07:28 083°	18:51 247°	17:07 079°	04:13 247°	90%
09-Oct-11	07:30 083°	18:49 247°	17:30 072°	05:14 254°	94%

Additional features of Ephemeris 2.0 are the Alt/Az Table that lists the angle of altitude as well as the compass bearing to the sun or moon every 15 minutes. The moon calendar shows the phase of the moon for each day of the month selected in the opening screen. AS you can see in the screen captures, the multi-day, Alt/Az, and moon calendar tables can be printed.

Alt/Az Table

Cancel Print

Time	Sun			Moon	
	Alt	Az	Shad	Alt	Az
12:00	44°	139°	1.04	21°	266°
12:15	45°	144°	1.00	18°	268°
12:30	46°	149°	0.97	16°	271°
12:45	46°	154°	0.95	13°	273°
13:00	47°	160°	0.94	11°	275°
13:15	47°	165°	0.94	08°	278°
13:30	47°	170°	0.94	06°	280°
13:45	46°	176°	0.95	04°	283°
14:00	46°	181°	0.98	02°	285°
14:15	45°	186°	1.01	-01°	288°
14:30	44°	191°	1.05	-03°	290°
14:45	42°	196°	1.09	-05°	293°
15:00	41°	201°	1.15	-07°	295°
15:15	39°	205°	1.22	-09°	298°
15:30	37°	209°	1.31	-11°	301°
15:45	36°	213°	1.40	-12°	304°
16:00	33°	217°	1.51	-14°	307°
16:15	31°	221°	1.65	-16°	310°



Other tools freely available from this site include a depth of field calculator and scan resolution calculator as well as articles and tutorials related to digital imaging. Digital Light and Color is a Massachusetts company that designs software for image editing.