

Mirror SmugMug Statistics

January 21, 2022

0.1 Mirror SmugMug Statistics

This notebook runs queries against the `sqlite` database `mirror.db` that holds consolidated SmugMug online image metadata.

```
[1]: NB. J version - notebook runtime
smoutput 9!:14''
smoutput timestamp 6!:0 ''
```

```
j903/j64avx2/windows/release-a/commercial/www.jsoftware.com/2021-12-16T15:15:09/
clang-13-0-0/SLEEF=1
21 Jan 2022 13:53:01
```

```
[2]: NB. required addons - set portable box characters
load 'general/jod'
0 0$portchars ''
```

0.1.1 Load Utilities and SQLITE data

```
[3]: NB. open dictionaries and fetch
od ;:'imex smugpyter utils' [ 3 od ''
smoutput 2 1 disp 'mirrorstats' NB. group header
smoutput 75 list }. grp 'mirrorstats' NB. group words
smoutput lg 'mirrorstats' NB. load group
```

NB.*mirrorstats s-- sqlite mirror database statistics.

NB.

NB. created: 2022jan08

NB. changes: -----

require 'data/sqlite'

NB.*dependents

NB. (*)=: AlbumImageCount_sql GeotaggedAlbumImages_sql

NB.*enddependents

AlbumImageCount_sql=: (0 : 0)

```
select count(1) as ImageCnt, a.AlbumKey, b.AlbumName from ImageAlbumXr a
inner join Album b on a.AlbumKey=b.AlbumKey group by a.AlbumKey
```

)

```
GeotaggedAlbumImages_sql=: (0 : 0)
select AlbumName, OnlineImageFile, Latitude, Longitude from OnlineImage a
inner join ImageAlbumXr b on a.ImageKey = b.ImageKey
inner join Album c on b.AlbumKey = c.AlbumKey
where (not (a.Latitude = 0 and a.Longitude = 0))
and c.AlbumName like
)
```

ALTMIRRORDBPATH	AlbumImageCount	AlbumImageCount_sql
GeotaggedAlbumImages_sql	MIRRORDB	MIRRORDBPATH
MeeusHomeLonLat	NotDivisible	albdist
albextent	antimode	arctan
assert	beforestr	charsub
cos	dbquote	dev
dstat	earthdist	freq
itYMDhms	kurtosis	mean
meanalbdist	meanalblonlat	median
midpt	mirrorcn	mode2
nonemptyalbums	ofreq	pwcf
q1	q3	rfd
round	sin	skewness
ssdev	stddev	var

+--+-----+
|1|mirrorstats group loaded|
+--+-----+

```
[4]: NB. set sqlite db file
(3 : 0)''
ALTMIRRORDBPATH=: ''
if. IFWIN do. ALTMIRRORDBPATH=: 'c:/pd/diaries/'
elseif. IFUNIX do. ALTMIRRORDBPATH=: '~/pd/dbs/'
end.
dbf=: ALTMIRRORDBPATH,MIRRORDB
if. -.fexist dbf do. dbf=: 'db not set' end.
)
smoutput dbf
```

c:/pd/diaries/mirror.db

```
[5]: NB. fetch table columns
db=: sqlopen_psqli_dbf
showpass 'Tables' ;< >sqltables__db ''
(;0{oi)=: ;1{oi=: sqlread__db 'select * from OnlineImage order by UploadDate_
↳desc'
showpass 'OnlineImage columns' ; 50 list ;0{oi
```

```
(;0{al})=: ;1{al=: sqlread__db 'select * from Album order by OnlineImageCount_
↳desc'
'Album columns' ; 50 list ;0{al
```

```
+-----+-----+
|Tables|Album      |
|      |ImageAlbumXr |
|      |ImageKeywordXr|
|      |LocalImage    |
|      |LocalPath     |
|      |OnlineImage   |
|      |OnlineKeyword |
+-----+-----+

+-----+-----+-----+-----+
|OnlineImage columns|ImageKey      |OnlineImageFile| ArchivedMD5  |
|                   |ArchivedSize  |Latitude       | Longitude    |
|                   |Altitude     |OriginalHeight | OriginalWidth |
|                   |RealDate     |UploadDate    | LastUpdated  |
|                   |Uri          |ThumbnailUrl   | Keywords     |
|                   |Caption      |               |              |
+-----+-----+-----+-----+

+-----+-----+-----+-----+
|Album columns|AlbumKey      |LocalPathID    |
|             |LocalPresent  |OnlineImageCount|
|             |OnlineCreateDate|LastUpdated    |
|             |ImagesLastUpdated|AlbumName      |
|             |ParentFolders  |WebUri         |
|             |AlbumDescription|               |
+-----+-----+-----+-----+
```

0.1.2 Recent Image Additions

```
[6]: NB. last 10 images loaded
; "1 ] 10 { . (10 {.> RealDate) ,. (<' - ') ,. OnlineImageFile
```

```
2022-01-21 - qr self reference.jpg
2022-01-14 - first 254-1200 dob light.jpg
2022-01-04 - unfortunate framed pirhana.jpg
1979-08-01 - pantanal pirhana.jpg
1966-01-01 - persepolis brownie evelyn frank steve lion 1966.jpg
2021-12-31 - labelle lake ice palace new years.jpg
2021-12-31 - mali labelle lake ice palace entrance.jpg
2021-12-31 - mali labelle lake ice palace tunnel.jpg
1967-08-01 - agha jari bazaar august 1967.jpg
1969-04-06 - easter at wins helen frank margo apr 6 1969.jpg
```

0.1.3 Album Statistics

```
[7]: NB. 10 largest albumns
10 {. (>AlbumName) ,. ": ,. >OnlineImageCount
```

Idaho Instantns	443
The Way We Were	429
Cell Phoning It In	338
Weekenders	320
Missouri Moments	315
California Captures	231
My Kids	195
Montana Now and Then	165
Image Hacking	162
Panoramas	152

```
[8]: NB. album image counts
dstat OnlineImageCount
```

```
sample size:      77
minimum:          0
maximum:          443
1st quartile:     17
2nd quartile:     48
3rd quartile:     110
first mode:       7
first antimode:   443
mean:             78.1948
std devn:         93.8805
skewness:         2.1633
kurtosis:         7.8193
```

0.1.4 Images per Year

My image dates are a mixture of EXIF dates and manually assigned dates. The manually assigned dates are rarely accurate and reflect my best guess as to when a picture was taken. Many images do not have dates. They show up in year 0.

```
[9]: NB. images per year - year 0 means no date
70 list ', ' ,.~ ": rf=: \:~ |: > freq 0 {"1 rdt=: itYMDhms RealDate
```

```
2022 3, 2021 163, 2020 98, 2019 446, 2018 294, 2017 227, 2016 298,
2015 207, 2014 98, 2013 172, 2012 178, 2011 217, 2010 152, 2009 144,
2008 180, 2007 284, 2006 166, 2005 120, 2004 110, 2003 79, 2002 118,
2001 135, 2000 33, 1999 6, 1996 1, 1995 19, 1994 8, 1993 8,
1992 17, 1991 12, 1990 4, 1989 14, 1988 6, 1987 10, 1986 6,
1985 4, 1984 2, 1983 42, 1982 4, 1981 37, 1980 17, 1979 90,
1978 27, 1977 10, 1976 20, 1975 8, 1974 22, 1973 4, 1972 5,
1971 23, 1970 33, 1969 22, 1968 45, 1967 32, 1966 24, 1965 5,
1964 13, 1963 8, 1962 20, 1961 6, 1960 7, 1959 15, 1958 13,
```

```

1957 7, 1956 6, 1955 11, 1954 10, 1953 4, 1952 6, 1951 3,
1950 9, 1949 17, 1948 10, 1947 3, 1946 5, 1945 2, 1944 2,
1943 1, 1942 1, 1941 7, 1940 6, 1939 2, 1938 3, 1937 2,
1936 5, 1935 4, 1934 3, 1933 1, 1932 1, 1931 4, 1930 1,
1929 1, 1928 1, 1927 2, 1925 2, 1924 1, 1920 2, 1919 2,
1917 2, 1916 2, 1914 1, 1912 1, 1910 4, 1908 3, 1907 1,
1906 2, 1905 3, 1902 2, 1901 1, 1900 1, 1897 1, 1894 1,
1880 2, 1870 1, 1864 1, 0 180,

```

Images per year statistics since the year 2000. It was around 2000 that I started saving digital image files.

```

[10]: NB. images per year statistics for years after 1999
dstat (1 {"1 rf) #~ 1999 < 0 {"1 rf

```

```

sample size:      23
minimum:          3
maximum:          446
1st quartile:     110
2nd quartile:     163
3rd quartile:     217
first mode:       98
first antimode:   3
mean:             170.5217
std devn:         96.3709
skewness:         0.896
kurtosis:         4.2634

```

0.1.5 Uploads per Year

I often upload old images that get counted in prior years. These counts reflect actual database inserts. Note the count of 724 in 2019. I did not insert that many images in 2019. The upload count probably reflects reorganizing existing images. The count of 1531 in 2009 marks the year I transferred my online images to SmugMug.

```

[11]: 70 list ', ' ,.~ ": uf=: \:~ |: > freq 0 {"1 udt=: itYMDhms UploadDate

```

```

2022 8, 2021 203, 2020 109, 2019 724, 2018 352, 2017 319,
2016 362, 2015 222, 2014 102, 2013 256, 2012 233, 2011 314,
2010 212, 2009 1531,

```

```

[12]: NB. uploads per year statistics - less outliers > 600
dstat (1 {"1 uf) #~ 600 > 1 {"1 uf

```

```

sample size:      12
minimum:          8
maximum:          362
1st quartile:     156
2nd quartile:     227.5
3rd quartile:     316.5

```

```

first mode:          8
first antimode:      8
mean:                224.3333
std devn:            108.297
skewness:            _0.5389
kurtosis:            2.4241

```

0.1.6 NotDivisible counts

NotDivisible counts how many images must be added to a gallery so that the total number of gallery images is evenly divisible by 3 and 5. The iPhone SmugMug app displays images in rows of 3 (portrait) or 5 (landscape) and I like completely filled rows. When the total is evenly divisible by $15 = 3 * 5$ both portrait and landscape rows are filled.

```
[13]: 10 {. NotDivisible dbf
```

```

+-----+--+--+-----+
| [Count] |3|5|15| [Album Name]      |
+-----+--+--+-----+
|338      |1|2|7 |Cell Phoning It In  |
+-----+--+--+-----+
|443      |1|2|7 |Idaho Instants     |
+-----+--+--+-----+
|7         |2|3|8 |Does Not Fit         |
+-----+--+--+-----+
|7         |2|3|8 |Test Patterns     |
+-----+--+--+-----+
|7         |2|3|8 |Partial Restorations |
+-----+--+--+-----+
|22        |2|3|8 |To Much Information |
+-----+--+--+-----+
|7         |2|3|8 |Fake Pixels       |
+-----+--+--+-----+
|64        |2|1|11|Banff and Jasper 2006|
+-----+--+--+-----+
|49        |2|1|11|New York 2005      |
+-----+--+--+-----+

```

0.1.7 Color Keywords

Keywords starting with 0_ are dominant color keys assigned by the Python SmugPyter program.

```
[14]: db=: sqlopen_psqlite_dbf
      (;0{kf)=: ;1{kf=: sqlread_db 'select * from ImageKeywordXr'
      'ImageKeywordXr columns' ; 0{kf
```

```

+-----+-----+
|ImageKeywordXr columns|+-----+-----+|
|                      ||ImageKey|Keyword||

```

```
|
|+-----+-----+|
+-----+-----+
```

```
[15]: topbotk=: 4 : 0
      NB. topbotk v-- (x) top and bottom (y) keys
      kf=: ofreq y
      kf=: (' ' ,. >0{kf) ,.~ ":",.;1{kf
      (x {. kf) ,. |. (-x) {. kf
      )
```

```
[16]: NB. top/bottom 20 color keywords
      ColorKeys=: Keyword #~ ('0_'&-:.)@(2&{.)> Keyword
      20 topbotk ColorKeys
```

509 0_darkslategrey	1 0_forestgreen
370 0_black	1 0_aquamarine
243 0_darkolivegreen	1 0_magenta
229 0_dimgrey	1 0_lightyellow
223 0_steelblue	1 0_lawngreen
207 0_darkgrey	1 0_lavenderblush
185 0_rosybrown	1 0_indigo
176 0_gainsboro	1 0_lightgreen
174 0_lightsteelblue	1 0_springgreen
171 0_lightgrey	1 0_cyan
168 0_grey	1 0_hotpink
154 0_tan	1 0_darkmagenta
148 0_cornflowerblue	1 0_floralwhite
120 0_silver	1 0_cornsilk
117 0_lavender	1 0_mediumorchid
85 0_lightslategrey	2 0_greenyellow
85 0_sienna	2 0_lime
81 0_peru	2 0_limegreen
77 0_saddlebrown	2 0_moccasin
77 0_skyblue	2 0_seashell

0.1.8 Print Size Keywords

```
[17]: NB. top/bottom 20 print size keywords
      SizeKeys=: ColorKeys -.~ Keyword #~ ({.> Keyword) e.> <'0123456789'
      NB. remove odd keys that do not follow name conventions
      NssKeys=: <;._1 ' 0z0 0z1'
      SizeKeys=: SizeKeys -. (<;._1 ' 50th'),NssKeys
      20 topbotk SizeKeys
```

939 4x6	1 2.25x4
844 5x7	1 8x32
532 8x12	1 10x16
274 5x6.7	1 8x40
257 10x15	1 12x30

247	6x8	1	6x24
198	3x4	1	16x24
151	2.5x3.5	1	3x3
133	4x5	1	5x8
92	5x5	1	5.5x14
64	6x10	1	9x21
60	3x5	1	4x5.3
52	2x3	1	2x2.5
50	8x10	2	16x20
28	4x4	2	12x24
24	3.5x5	2	6x15
23	8x8	2	10x13
18	10x14	2	11x28
13	6x6	2	8x10.6
13	5x6	2	9x36

```
[18]: NB. size keys that indicate not enough pixels or nonstandard aspect ratio
NssKeys ,. <"0 +/"1 NssKeys =/ Keyword
```

```
+---+---+
|0z0|258|
+---+---+
|0z1|465|
+---+---+
```

0.1.9 Descriptive Keywords

All keywords that are not color or size keys.

```
[19]: DescKeys=: Keyword -. ColorKeys,SizeKeys,NssKeys
20 topbotk DescKeys
```

1203	geotagged	1	rafting
948	usa	1	prayer
519	mali	1	tooth
366	me	1	saber
224	park	1	columns
224	idaho	1	remnants
202	iphone	1	pictographs
198	helen	1	skeleton
180	lake	1	sizes
172	river	1	rafts
168	missouri	1	dell
153	canada	1	large
150	jacob	1	josie
141	museum	1	powers
125	montana	1	fremont
121	ontario	1	knife
110	sculpture	1	hazard

102 canyon	1 lectern
99 evelyn	1 bride
84 fall	1 bedazzled

0.1.10 GPS Distances

```
[20]: NB. longitude and latitude of home decimal degrees
NB. western longitudes +, northern latitudes +
MeeusHomeLonLat=: 116.375956 43.646775
```

```
[21]: NB. distances in km from near to far excluding (0,0) lb
NB. convert to Meeus lb convention for (earthdist)
plb=: (i. #Longitude) ,. (-Longitude) ,. Latitude
plb=: |: plb #~ -.0 0 -:"1 ] 1 2 {"1 plb
plb=: /:~ (0{plb) ,.~ MeeusHomeLonLat earthdist 1 2{plb
```

```
[22]: NB. format image distance
fmdist=: {{"1 " :&.> (<"0 ] 0.01 round 0 {"1 y) ,. (<' - ') ,. (1 {"1
→y){OnlineImageFile}}
```

```
[23]: NB. 10 nearest geotagged images km
fmdist 10{.plb
```

```
0.11 - neighborhood intersection park.jpg
0.12 - road end promises.jpg
0.16 - not so burning bush.jpg
0.32 - meridian irrigation canal.jpg
0.51 - mashed squirrel roadkill.jpg
0.57 - school playground map.jpg
0.64 - new meridian neighborhood.jpg
0.64 - territory drive house construction august.jpg
0.64 - territory drive house building.jpg
0.85 - bogus latter day saints.jpg
```

```
[24]: NB. 10 furthest geotagged images km
fmdist |. _10{.plb
```

```
15830.93 - pishi on pishi [47018603].jpg
15487.74 - air malawi [42502530].jpg
15477.27 - victoria falls hotel distance marker [36406766].jpg
15476.92 - me livingstone statue [19983766].jpg
15476.82 - vic falls train station [51228396].jpg
15476.62 - curio market from balloon [49529252].jpg
15476.31 - mali sprayview hotel [51064919].jpg
15467.23 - me nude kafunta chalet [1157046406].jpg
15467.23 - kafunta lodge veranda [2486888].jpg
15466.71 - me livingstone airport [47004492].jpg
```

```
[25]: NB. image distance statistics
      dstat 0 {"1 plb
```

```
sample size:      1203
minimum:          0.1089
maximum:          15830.934
1st quartile:     452.0854
2nd quartile:     1014.1753
3rd quartile:     2261.6165
first mode:       849.1692
first antimode:   0.1089
mean:             1839.084
std devn:         2557.9619
skewness:         3.1468
kurtosis:         14.7084
```

```
[26]: NB. mean album geotagged image distances
      mad=: albdist 0
```

```
[27]: NB. album "centroid" distance statistics
      dstat ;0 {"1 mad
```

```
sample size:      59
minimum:          4.051
maximum:          15482.402
1st quartile:     826.8154
2nd quartile:     2198.38
3rd quartile:     3203.335
first mode:       930.5087
first antimode:   930.5087
mean:             3064.1298
std devn:         3385.7457
skewness:         1.8857
kurtosis:         5.9997
```

```
[28]: NB. format album distances.
      fmtad=:{{('8.2'&(8!:2) ,. km) ,. ' - ' , "1 alb [ 'km alb'=. |: x {. y}}}
```

```
[29]: NB. 10 nearest albums
      10 fmtad /:~ mad
```

```
4.05 - Improvised Imaging Devices
9.88 - Camera Tests
118.43 - Idaho Instants
305.60 - Anne and Reza Visit
371.43 - Collages
490.53 - Montana Now and Then
503.38 - Logos Screenshots Covers
535.33 - North by Northwest
```

546.91 - Tetons Yellowstone 2013
610.78 - From Hazel's Albums

[30]: *NB. 10 furthest albums*

```
10 fmtad \::~ mad
```

15482.40 - Zambia Eclipse Trip
11660.41 - Iran 1960's
11272.49 - Ghana 1970's
11225.88 - ACS School Trips 1960's
10963.97 - Beirut Lebanon 1960's
8457.47 - South America 1979
8409.77 - Enewetak Atoll 1980's
6347.19 - Diving at Bellairs Barbados BW
6346.13 - Barbados Late 1970's
6046.94 - GPS Extremes

[31]: 3 od ''

```
+-----+-----+-----+-----+  
|1|closed ->|imex|smugpyter|utils|  
+-----+-----+-----+-----+
```