

Mirror SmugMug Statistics

February 16, 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.jssoftware.com/2021-12-16T15:15:09/
clang-13-0-0/SLEEF=1
16 Feb 2022 23:37:50
```

```
[2]: NB. required addons - set portable box characters
load 'data/sqlite 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 75 list }. grp 'mirrorstats'
smoutput lg 'mirrorstats'
```

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:/SmugMirror/Documents/XrefDb/'
elseif. IFUNIX do. ALTMIRRORDBPATH=: '~/pd/dbs/'
end.
if. fexist dbf=: ALTMIRRORDBPATH,MIRRORDB do. dbf else. 'db not set' end.
)
smoutput dbf

```

c:/SmugMirror/Documents/XrefDb/mirror.db

```

[5]: NB. fetch table columns
db=: sqlopen_psqliite_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 Total Online Image Count

```
[6]: sqlreads__db 'select count(*) as OnlineCount from OnlineImage'
```

	OnlineCount
4977	

0.1.3 Recent Image Additions

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

```
2022-02-13 - settlers park pond ducks.jpg
2022-02-15 - joplin cemetery collage.jpg
2022-02-15 - locust bogus moonrise.jpg
2022-02-15 - stop moon.jpg
2022-02-13 - horseshoe court conduct.jpg
2022-02-13 - more mcmansion construction.jpg
2022-02-12 - patio dob telescope.jpg
2022-02-12 - banbury golf course fishing sign.jpg
2022-02-12 - locust boise bench bend.jpg
2022-02-12 - banbury pond reflection.jpg
```

0.1.4 Album Statistics

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

Idaho Instant	462
The Way We Were	429
Cell Phoning It In	342
Weekenders	320
Missouri Moments	315
California Captures	231
My Kids	195
Montana Now and Then	165
Image Hacking	163
Panoramas	153

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

```

sample size:      77
minimum:          0
maximum:          462
1st quartile:     17
2nd quartile:     48
3rd quartile:     110
first mode:        7
first antimode:   462
mean:             78.5974
std devn:         95.0672
skewness:         2.2075
kurtosis:         8.0974

```

0.1.5 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.

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

```

2022 33, 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.

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

```

sample size:      23
minimum:          33
maximum:          446

```

```

1st quartile:      110
2nd quartile:      163
3rd quartile:      217
first mode:         33
first antimode:     163
mean:               171.8261
std devn:           94.1786
skewness:           1.0344
kurtosis:           4.355

```

0.1.6 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.

```
[12]: 70 list ', ' ,.~ " : uf=: \:~ | : upc=: > freq 0 {"1 udt=: itYMDhms UploadDate
```

```

2022 38, 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,

```

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

```

sample size:      12
minimum:          38
maximum:          362
1st quartile:     156
2nd quartile:     227.5
3rd quartile:     316.5
first mode:       38
first antimode:   38
mean:             226.8333
std devn:         103.0691
skewness:         _0.3843
kurtosis:         2.1243

```

0.1.7 Flarp Rate

The *flarp rate* gives a rough indication of how much image rework and reloading I do. It shows up as a discrepancy between year counts and upload counts.

```
[14]: smoutput flc=: (0{upc) ,: (1{upc) - 1{(\:~)&. |: yic #"1~ (0{yic) e. 0{upc
```

```

2022 2021 2020 2019 2018 2017 2016 2015 2014 2013 2012 2011 2010 2009
   5   40   11  278   58   92   64   15    4   84   55   97   60 1387

```

Flarp statistics excluding the first upload year.

```
[15]: dstat }: 1{flc
```

```
sample size:      13
minimum:          4
maximum:          278
1st quartile:     13
2nd quartile:     58
3rd quartile:     88
first mode:       5
first antimode:   5
mean:             66.3846
std devn:         71.2946
skewness:         2.0888
kurtosis:         7.1736
```

0.1.8 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.

```
[16]: 10 {. NotDivisible dbf
```

```
+-----+--+---+-----+
| [Count] |3|5|15| [Album Name]      |
+-----+--+---+-----+
|163      |2|2|2 |Image Hacking      |
+-----+--+---+-----+
|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      |
+-----+--+---+-----+
|109       |2|1|11|utilimages        |
+-----+--+---+-----+
```

0.1.9 Color Keywords

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

```
[17]: db=: sqlopen_psqliite_dbf
      (;0{kf})=: ;1{kf}=: sqlread__db 'select * from ImageKeywordXr'
      'ImageKeywordXr columns' ; 0{kf}
```

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

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

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

512 0_darkslategrey	1 0_forestgreen
371 0_black	1 0_aquamarine
244 0_darkolivegreen	1 0_magenta
230 0_dimgrey	1 0_lightyellow
226 0_steelblue	1 0_lawngreen
207 0_darkgrey	1 0_lavenderblush
185 0_rosybrown	1 0_indigo
177 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
152 0_cornflowerblue	1 0_floralwhite
120 0_silver	1 0_cornsilk
118 0_lavender	1 0_mediumorchid
86 0_lightslategrey	2 0_greenyellow
85 0_sienna	2 0_lime
81 0_peru	2 0_limegreen
78 0_skyblue	2 0_seashell
77 0_saddlebrown	2 0_mediumblue

0.1.10 Print Size Keywords

```
[20]: 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
850 5x7      1 8x32
539 8x12     1 10x16
274 5x6.7    1 8x40
262 10x15    1 12x30
251 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
 19 10x14    2 11x28
 13 6x6      2 8x10.6
 13 5x6      2 9x36
```

[21]: *NB. size keys that indicate not enough pixels or nonstandard aspect ratio*

```
NssKeys ,. <"0 +/"1 NssKeys =/ Keyword
```

```
+---+---+
|0z0|258|
+---+---+
|0z1|466|
+---+---+
```

0.1.11 Descriptive Keywords

All keywords that are not color or size keys.

[22]:

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

```
1215 geotagged      1 rafting
 960 usa            1 prayer
 524 mali           1 tooth
 371 me             1 saber
 236 idaho          1 columns
 225 park           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
111 sculpture	1 hazard
102 canyon	1 lectern
99 evelyn	1 bride
87 sun	1 bedazzled

0.1.12 GPS Distances

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

[24]: *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

[25]: *NB. format image distance*
fmdist=: {{"1 " :&.> (<"0] 0.01 round 0 {"1 y) ,. (<' - ') ,. (1 {"1 [↵](#)
↪y){OnlineImageFile}}

[26]: *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 - more mcmansion construction.jpg
0.64 - new meridian neighborhood.jpg
0.64 - territory drive house construction august.jpg
0.64 - territory drive house building.jpg

[27]: *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

```

```

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

```

```

sample size:      1215
minimum:          0.1089
maximum:          15830.934
1st quartile:     431.8081
2nd quartile:     946.0361
3rd quartile:     2258.1433
first mode:       849.1692
first antimode:   0.1089
mean:             1821.7332
std devn:         2551.2272
skewness:         3.1576
kurtosis:         14.8052

```

```

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

```

```

[30]: 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:             3063.0605
std devn:         3386.4081
skewness:         1.8852
kurtosis:         5.9978

```

```

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

```

[32]: *NB. 10 nearest albums*

```
10 fmtad /:~ mad
```

```
4.05 - Improvised Imaging Devices
9.88 - Camera Tests
118.58 - Idaho Instanta
305.60 - Anne and Reza Visit
346.91 - 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
```

[33]: *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
```

[34]: 3 od ''

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