```
      aaa          cccccc        mmmmm   mmmmm
    a    a        cc    cc       mm mm    mm mm
   aa    aa       cc      c      mm   mm mm   mm
  aaaaaaaaa       cc             mm    mmmm    mm
 aa        aa     cc       c     mm     m      mm        MEETING NOTICE
 aa        aa     cc     cc      mm            mm
aa          aa    ccccccc        mm           mm     Free and open to the public
```

## Topic: Lossless Compression for Structured Data

**Speaker:** Luther Woodrum

**When:** Monday, May 21st, 2018, 7:30 pm

**Where:** Marist College, **Hancock Center**, Room **2023**

**Directions:** Building **14** on the map at **http://www.marist.edu/about/map.html**

**Parking:** Please park at black dot #10 on http://www.marist.edu/about/map.html (the lot North of the Hancock Center #14) or in the lot on the South-East corner of Route 9 & Fulton St. (S/E of the former Main Entrance).

**About the Topic:** Examples of structured data are database tables and spreadsheets. The most important measures of a data compression program are four numbers:
- The time to compress.
- The time to uncompress.
- The compression ratio.
- The time to query compressed data.

This presentation will discuss the tradeoffs between choices of compression methods and data structures for the four measures. It will focus on combinations of methods, including partial use of gzip and gunzip in combination with other methods. Special attention will be focused on querying compressed data, as it is not a usual function of a compression program.

**About the Speaker:** Luther began programming in 1957 as an actuarial programmer at an insurance company in Chicago. While there, he wrote sorts and, in 1958, implemented what is now called pivot tables. In 1960, he decided to make a change to more involvement with computer development, and left the insurance company. He joined IBM in 1961 to work on the 7070 sort and spent the following years working on sorting, indexing, and storage allocation using radix partition trees. Eventually this led to a component of MVS, called RPTS. While working on the sort, he developed a method of ensuring program correctness so that the 8,000 line sort had no errors from the first release forever. In 1968 he attended the graduate school, IBM SRI, and majored in probability, statistics, and queueing theory. This led to a paper on semi-Markov processes, published in the IBM Systems Journal in 1970. In 1987 he retired from IBM as a senior programmer. He was granted many patents by that time, and more since then. In retirement he builds computers, does contract programming, and develops applications for sorting, pattern matching, data compression, and a query language for operating on compressed database files, for a licensed program product.

**Cost:** Our meeting is **Free** and open to the public

**Dinner:** 6:00 pm, Palace Diner, 845.473.1576
Map and menu: **www.thepalacediner.com**
All are welcome to join us for dinner.

**We thank Marist College for hosting the chapter's meetings.**

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