TRITHEMIAN

The abbot Trithemius, born Johann von Heydenberg (1462-1516) invented one of the first multiliteral ciphers.

It was fashioned similar to the Baconian Cipher and was a means for disguising secret text. His work "*Steganographia*" published in 1499 describes several systems of 'covered writing.' The science of steganography is named after him. Several Internet discussion groups currently discuss the use of steganography to hide messages in graphics files. (.GIF files)

His alphabet, modified to include 26 letters of present-day English, is shown in Figure 3-10, below; it consists of all the permutations of three things taken three at a time or $3 ** 3 = 27$ in all.

```
A - 111    G - 131    M - 221    S - 311    Y - 331
B - 112    H - 132    N - 222    T - 312    Z - 332
C - 113    I - 133    O - 223    U - 313    * - 333
D - 121    J - 211    P - 231    V - 321
E - 122    K - 212    Q - 232    W - 322
F - 123    L - 213    R - 233    X - 323
```

The cipher text does not have to be restricted to digits; any groupings of three things taken three at a time will do.