

BACON

Sir Francis Bacon (1561-1626) invented a cipher in which the cipher equivalents are five-letter groups and the resulting cipher is monoalphabetic in character.



Bacon uses a 24 letter cipher with I and J, U and W used interchangeably.

A = aaaaa	I/J = abaaa	R = baaaa
B = aaaab	K = abaab	S = baaab
C = aaaba	L = ababa	T = baaba
D = aaabb	M = ababb	U/V = baabb
E = aabaa	N = abbaa	W = babaa
F = aabab	O = abbab	X = babab
G = aabba	P = abbba	Y = babba
H = aabbb	Q = abbbb	Z = babbb

A B C D E F
Aaaaa aaaab. aaaba. aaabb. aabba. aabab.

G H I K L M
aabba aabbb. abaaa. abaab. ababa. ababb.

N O P Q R S
abbaa. abbab. abbaa. abbbb. baaaa. baaab.

T V W X Y Z
baaba. baabb. babaa. babab. babba. babbb.

Bacon described the steganographic effect of message enfolding in an innocent external message. Suppose we let capitals be the "a" element and lower-case letters represent the "b" elements. The message "All is well with me today" can be made to convey the message "Help." Thus:

A	L	l	i	s	W	E	l	L	W	I	t	H	m	E	T	o	d	a	Y
a	a	b	b	b	a	a	b	a	a	a	b	a	b	a	a	b	b	b	a
			H				E						L						P

Bacon describes many several variations on the theme. Note the regularity of construction of Bacon's biliteral alphabet, a feature which permits its reconstruction from memory.

[Excerpt from "Classical Cryptography Course" by Randy Nichols (LANAKI)]