

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. abbbba. 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)]