

FIGURE 2.1

A Maplet for substitution ciphers.

The image shows a Java Swing window titled "Substitution Cipher". The window contains the following elements:

- A dropdown menu labeled "Substitution cipher type?" with a question mark icon.
- A text input field labeled "Keyword:".
- A row of 26 empty square boxes labeled "Plain:".
- A row of 26 empty square boxes labeled "Cipher:".
- A small rectangular button centered below the "Plain:" and "Cipher:" rows.
- A dropdown menu labeled "Encipher or Decipher?" with a question mark icon.
- Radio buttons for "Preserve word divisions?" with options "Yes" and "No". The "No" option is selected.
- A button labeled "What is this?".
- A large text area labeled "Input Message:".
- A small rectangular button to the left of the "Input Message:" text area.
- A "Clear" button at the bottom left.
- A "Quit" button at the bottom right.

FIGURE 2.2

Substitution cipher Maplet showing cipher alphabet.

The screenshot shows a Java Swing window titled "Substitution Cipher". At the top, there is a dropdown menu for "Substitution cipher type?" set to "Keyword(simple)" and a text field for "Keyword:" containing "WILLROGERS". Below this, two rows of letter boxes are displayed: "Plain:" with letters A through Z, and "Cipher:" with the letters W, I, L, R, O, G, E, S, A, B, C, D, F, H, J, K, M, N, P, Q, T, U, V, X, Y, Z. A "Create Alphabet Assignment" button is centered below the cipher row. Further down, there is a dropdown for "Encipher or Decipher?" and radio buttons for "Preserve word divisions?" with "Yes" and "No" options, and a "What is this?" button. The bottom section contains a large text area for "Input Message:" and a smaller text area to its left. At the very bottom, there are "Clear" and "Quit" buttons.

FIGURE 2.3

Substitution cipher Maplet after encryption.

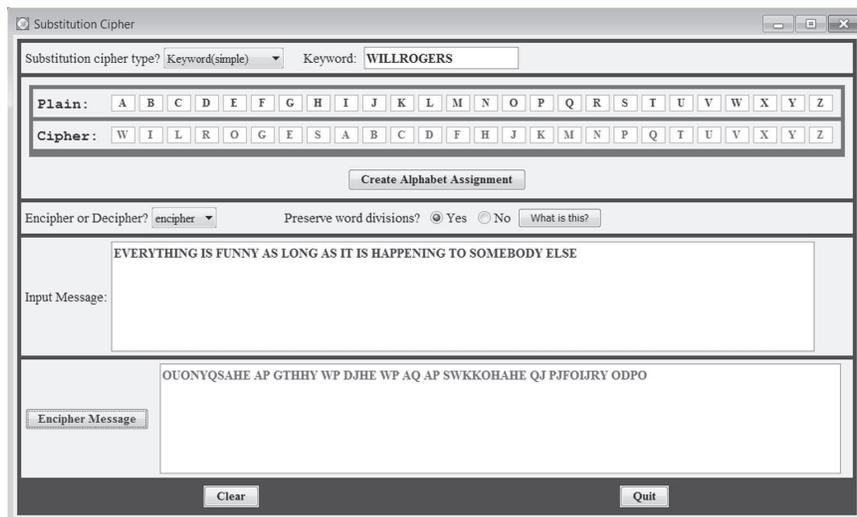


FIGURE 2.4
Substitution cipher Maplet after decryption.

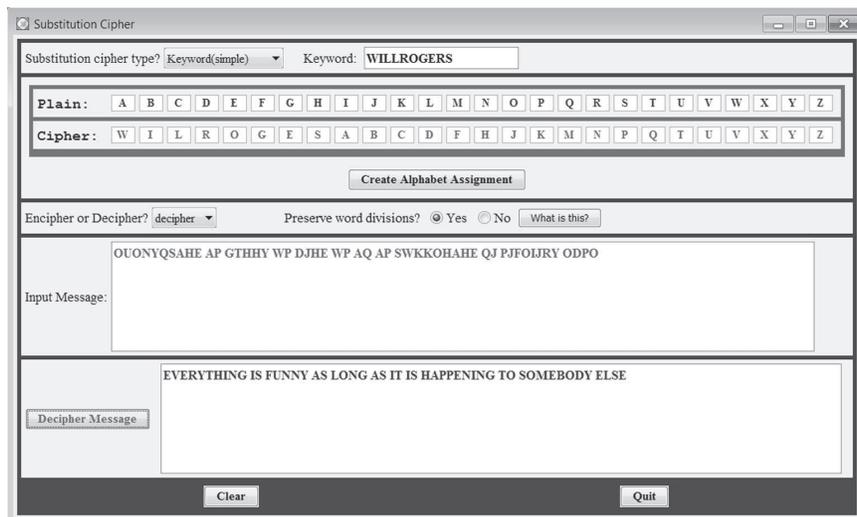


FIGURE 2.5

A Maplet for cryptanalysis of substitution ciphers.

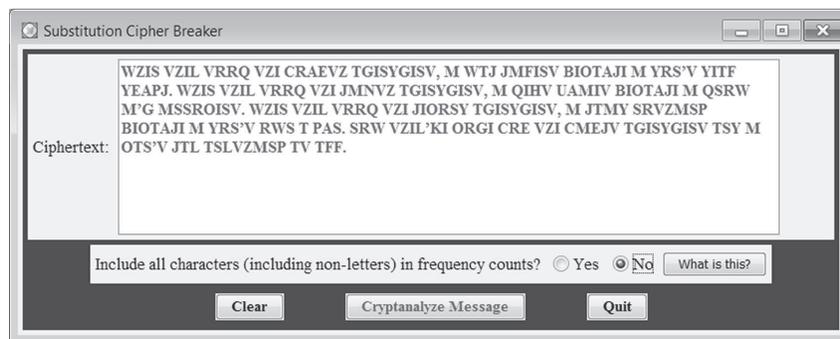


FIGURE 2.6

Substitution cipher breaker Maplet second window.

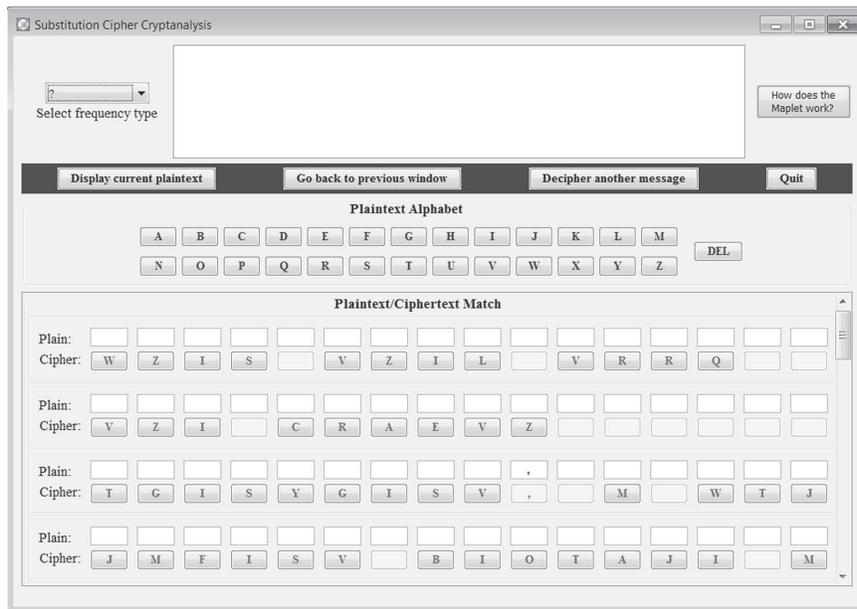


FIGURE 2.7

Substitution cipher breaker Maplet with one letter assigned.

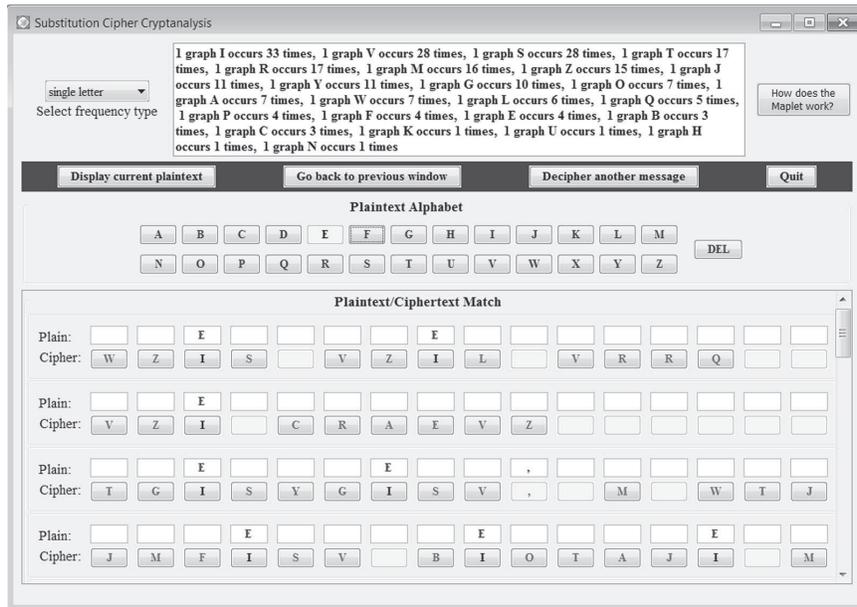


FIGURE 2.8

Substitution cipher breaker Maplet with all letters assigned.

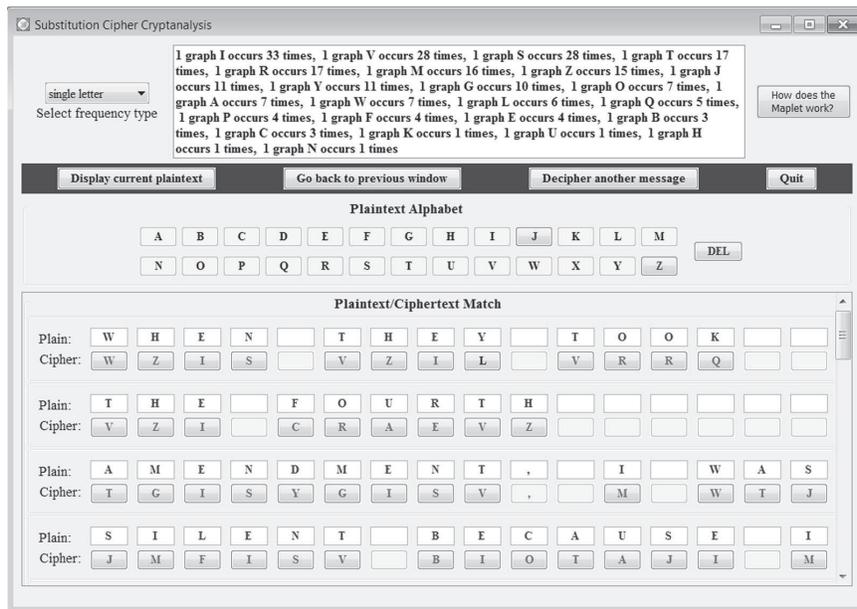


FIGURE 2.9
A Maplet for Playfair ciphers.

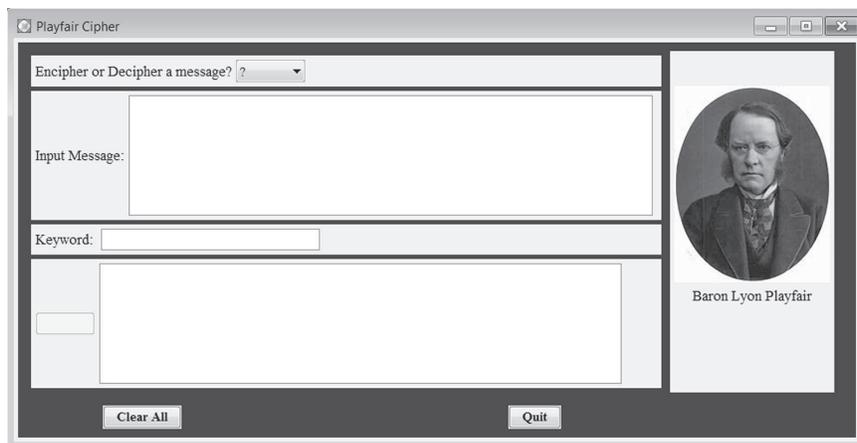


FIGURE 2.10

Playfair cipher Maplet after encryption.

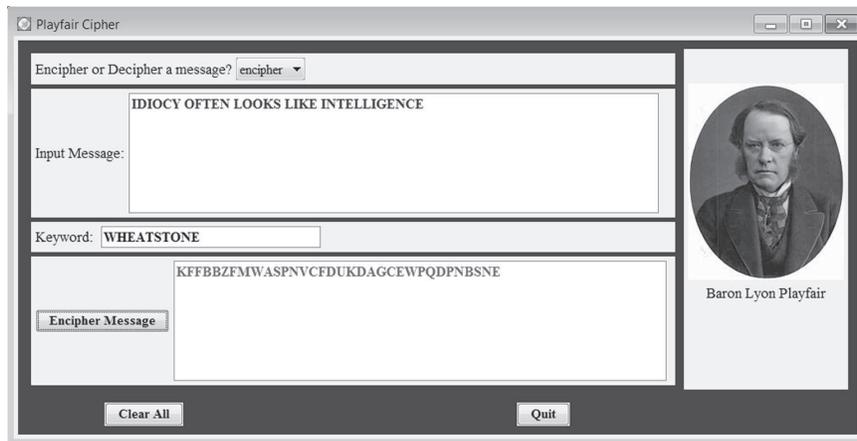


FIGURE 2.11

Playfair cipher Maplet after decryption.

