## Assignment #1

**Encrypted Chat** 

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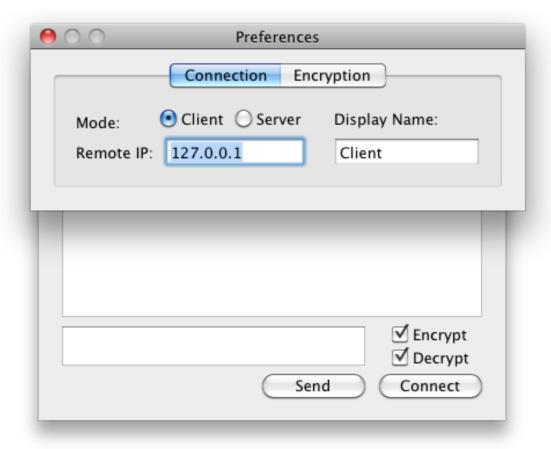
## **PURPOSE**

This is a simple encrypted chat program that allows two or more parties to connect to a server and chat with each other using either the Vigenère or Affine cipher. The user has the choice over which cipher to use at any point in time as well as the ability to encrypt or decrypt text that is sent back and forth.

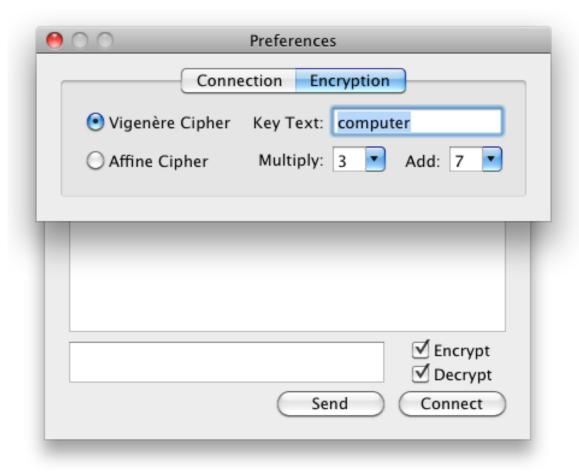
## **DOCUMENTATION**



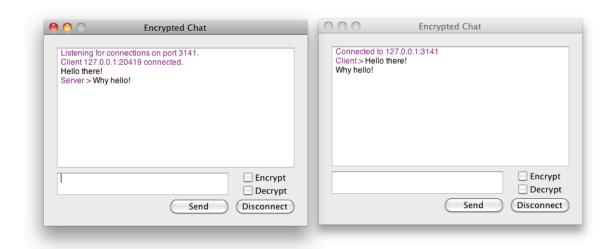
This is the main chat window. The application can act as either a client or a server for communication. This can be set in the preferences window by clicking "Encrypted Chat -> Preferences". The "Encrypt" checkbox controls whether outbound text is encrypted. The "Decrypt" checkbox controls whether inbound text is encrypted or not.



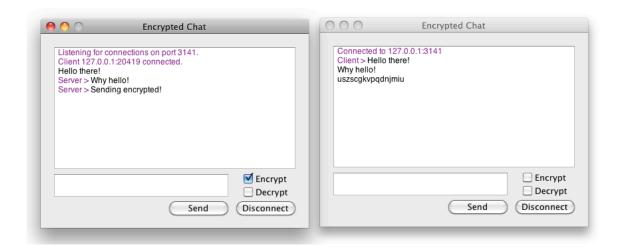
You can change the display name, the mode of operation (client or server) and the IP address if you are operating in client mode.



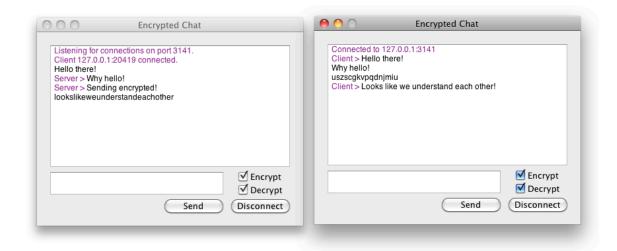
The encryption settings can be changed at any point in time, whether you are connected or not.



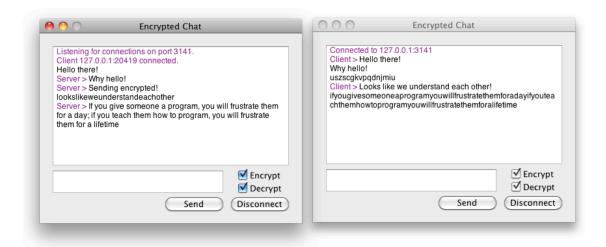
Here we have an example conversation with no inbound or outbound encryption enabled on either the client or server.



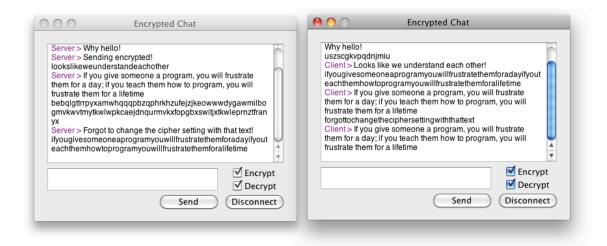
Here we see what happens if one end encrypts outbound text, but the other end doesn't decrypt inbound text.



In this example we see how text shows up when both inbound and outbound encryption/decryption is enabled.



Here the server sends the example text to the client using the Vigenère cipher.



Here we have the client sending the example text using the Affine cipher.