Cipher Changes
Wednesday, 20 October 2010 18:00

One of the major changes in Sprint 3 is the extensions of the available ciphers - my aim is that this website will provide puzzles that are a bit harder to solve than some others...

I have now added changes to support a German alphabet.   If this is used when creating the puzzle, then all the German characters (ÄÖÜß) are also available in both plaintext and cipher. This will also mark a puzzle in the database as being German, which will later be used to allow filtering in the browse puzzles interface.   Note that using the German alphabet does not mean the puzzle has to be in German, or vice versa...

(One side effect is that I had to write a custom version of toUpper() which preserved the ß character, which apparently is never typographically regarded as an upper case character.)

(Another side effect is that alphabets can now be too long to fit in the width of the screen so I have had to put them into a FlowPanel which can wrap the elements it contains.)

(Another side effect: You have to tell eclipse explicity to encode resources as utf-8 - select the properties for a file/directory and change resource->encoding->utf-8.)

I have also added two ways to deal with digits in a puzzle - either, like punctuation, they are unencrypted and made visible by using the appropriate hint, or the cipher alphabet is extended to include the digits - thus making a significantly bigger choice of letters.   With the second alternative, the digits in the plain text are encrypted just like any others.   You will know which you are dealing with by the alphabet that the sover interface offers you.

The third change is that I have allowed non 1-1 mappings in the ciphers.   This means that a plain text character may be encrypted as one of several different cipher characters, e.g. an 'e' could be encoded to one of 'F', '2' or 'Z', at random.   This is designed to mess up your statistical analysis...

With these changes, I now have a need for some kind of difficulty rating for the puzzles. That will be my next step.