Code for MATLAB II: Recovering Martian Logs

% MATLAB II: Recovering Martian Logs

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file = fopen("chunk"); % open and read the binary file

chunk = fread(file, 'int32'); %fread returns the character array, chunk

load('key\_80.mat'); % load all variables from the file

key = randomKey;

for Q = 0 :length(key) %shift the keys for each element in the array

    newKey = circshift(key,Q); % shift the keys

    text = chunk - newKey; % subtract the keys from the 'chunk' array

    % if readable text is found ('^' not in the array)

    if ~ismember(94, text(:))

    %save and open the file Decrypted\_Logs.txt for binary read access

    fid = fopen('Decrypted\_Logs.txt','wt');

    fprintf(fid,char(text.')); %Write data to the text file

    fclose(fid); %closes the open file.

    disp('Text saved successfully.');

         break

    end

end