**Calculator Instructions**

This is a math/matrix calculator. It supports functions for algebra and trigonometry.

The user can open a .txt file to calculate or save the calculation into a .txt file

**Functions**

functions can be entered by press the button

The matrix must first set the row and column then press the button to do the calculate

The user must choose if the matrix calculates with one or two matrixes

The people can analyze an input sequence and return the max, min, and average value.

**Function Button Description**

ABS |x| Return the absolute value of x

Analyze AS Input with a sequence numbers, and return the max, min, and average

Value of the numbers

Space Space input a blank space to separate the numbers

Bracket () Set the priority of the calculation

**Matrix-Function Button Description**

Add + Add one matric and another

Minus - Subtract the second matrix from the first

Multiply \* Multiply the first matrix with the second

Determinant Det Return the determinant of the matrix

Inverse Inverse Return the inverse matrix of the given one

QR decomposition QR Return the decomposition two matrix

SVD decomposition SVD Return the decomposition two matrix

Matrix trace Trace Return the specific trace of the matrix

Powers of a matrix Power(n) matrix times n of itself

LU decomposition LU Return the decomposition two matrix

Cholesky decomposition Cholesky Return the decomposition two matrix

Gaussian Elimination Gauss-Elimination Return the matrix after row reduction

EigenValue EiVector Return the eigenvalue of the matrix

**Arithmetic Operators**

Once you press the '=' button or press 'Enter', the expression is evaluated according to normal algebraic operator precedence. That is, parentheses first, followed by exponentiation, multiply, divide, add and subtract.

**Function Button**

Add +

Subtract -

Multiply ×

Divide ÷

Exponent exp

**Constants**

These two constants enter the value at high precision.

π Pi – approximately 3.142…

e e - approximately 2.718…