What is MATLAB?

MATLAB is a high-level language, integrating computing, visualization, and programming capabilities in an easy-to-use environment, where problems and solutions are presented in the same annotation.

MATLAB is a high-level language, integrating computing, visualization, and programming capabilities in an easy-to-use environment, where problems and solutions are presented in the same annotation. Usually MATLAB is used for:

1. Math and computing
2. Development of algorithms
3. Model, simulate, create prototypes
4. Analyze and explore data visualization
5. Scientific and technical graphics

Application development, including a graphical user interface for Graphic User Interface users

MATLAB is an interactive system, in which data elements are arrayed, no need for dimension, allowing solving many computational problems, especially with matrices and vectors, in fast time , in part, compared to writing software in non-interactive languages ??like C or Fortran.

MATLAB stands for Matrix Laboratory. MATLAB was originally written to easily access matrix software developed by LINPACK and EISPACK projects. They also brought the latest features to the software in the matrix computing world.

Over the years, MATLAB has grown and served many users. In the training environment, it is the standard instruction tool for both introductory and intensive courses in mathematics, engineering and science. In the industry, MATLAB is also a tool selected by many research, analysis and development.

MATLAB also has a set of solutions towards the application called the toolbox. Toolbox is very important for most MATLAB users because it allows learning and applying specialization technology. Toolbox is a collection of MATLAB functions (M-file) that extends the MATLAB environment to solve each problem layer. The areas in which toolbox can work include signal processing, control system, neural network, fuzzy logic, wavelet transform, simulation .

MATLAB system

MATLAB system consists of 5 main parts

MATLAB language

This is a high-level array / matrix language with control commands, functions, data structures, inputs. Outputs and features of object-oriented programming. It allows for 'small-scale programming: quickly creating and removing software, as well as' large-scale programming' to create large, complex programs.

MATLAB working environment

This is the tool set you will use when you are a MATLAB user or programmer, including variable management tools in the work environment, import - export data. It also has tools for developing, managing, debugging, creating profiles for M-files and MATLAB applications.

Graphics processing

This is the graphics system of MATLAB, including advanced commands to visualize data into 2D and 3D, image processing, effects, graphic display. It also has low-level commands that allow you to customize the graphical display, build GUI user interface on your MATLAB applications.

Library of MATLAB calculation function

This is a collection of computational algorithms, from basic functions such as sum, sine, cosine, and complex arithmetic calculations to complex functions such as matrix inversion, own and vector values ??of ma Battle, Bessel function and fast Fourier transform.

MATLAB API * Application Program Interface

This is the library that allows writing software C and Fortran to interact with MATLAB. It includes a tool for calling routines in MATLAB (dynamic linking), using MATLAB as a computing tool for reading and writing M-files.

See more:

1. 16 programming languages ??will change your luck in 2018
2. Top 5 best programming languages ??for kids today
3. These programming languages ??for the best mobile application development