

## 1 Short Help on load

Matlab recognizes two general types of external files:

- Files with the extension ‘.mat’ are binary data files. You can load them into your Matlab workspace by typing

```
load name;
```

where name is the filename without the .mat extension. Sometimes the data will appear as new matrix variable having the same name as the file. More often the file contains multiple variables that will all be loaded into your workspace. To find out which matrices were loaded, you can see a list of workspace variables in the “Workspace” window, or by using the command

```
whos
```

- Files with the extension ‘.m’, ‘.p’, and ‘.mex...’ contain Matlab source code. They can either be **functions** or **scripts**. You can execute these files as Matlab code by just typing their name (script files) or using them as if they were built-in Matlab functions (functions). It is not necessary to load these files into Matlab using the load command.

## 2 Matlab help on load

LOAD Load workspace variables from disk.

LOAD FILENAME retrieves all variables from a file given a full pathname or a MATLABPATH relative partial pathname (see PARTIALPATH). If FILENAME has no extension LOAD looks for FILENAME.mat and, if found, LOAD treats the file as a binary "MAT-file". If FILENAME.mat is not found, or if FILENAME has an extension other than .mat it is treated as an ASCII file.

LOAD, by itself, uses the binary "MAT-file" named 'matlab.mat'. It is an error if 'matlab.mat' is not found.

LOAD FILENAME X loads only X.

LOAD FILENAME X Y Z ... loads just the specified variables. The wildcard '\*' loads variables that match a pattern (MAT-file only).

LOAD FILENAME -REGEXP PAT1 PAT2 can be used to load all variables matching the specified patterns using regular expressions. For more

information on using regular expressions, type "doc regexp" at the command prompt.

LOAD -ASCII FILENAME or LOAD -MAT FILENAME forces LOAD to treat the file as either an ASCII file or a MAT-file regardless of file extension. With -ASCII, LOAD will error if the file is not numeric text. With -MAT, LOAD will error if the file is not a MAT-file generated by SAVE -MAT.

If FILENAME is a MAT-file, requested variables from FILENAME are created in the workspace. If FILENAME is not a MAT-file, a double precision array is created with name based on FILENAME. Leading underscores or digits in FILENAME are replaced with X. Other non-alpha chars in FILENAME are replaced with underscores.

S = LOAD(...) returns the contents of FILENAME in variable S. If FILENAME is a MAT-file, S is a struct containing fields matching the variables retrieved. If FILENAME is an ASCII file, S is a double precision array.

Examples for pattern matching:

```
load fname a*           % Load variables starting with "a"
load fname -regexp \d   % Load variables containing any digits
```

Examples for specifying filename and variables:

```
load mydata.mat v1      % Use with literal filename
load 'my data file.mat' v1 % Use when filename has spaces
d = load('mydata.mat', 'v1') % Use when output is specified
load(savefile, 'v1') % Use when filename is stored in a variable
```

See also save, whos, regexp, uiload, spconvert, partialpath, iofun, fileformats.