What’s New for MATLAB with R2012b

Ned Gulley
MATLAB
Introducing the New MATLAB Desktop
Agenda

- MATLAB Toolstrip
  - MATLAB apps
  - Import Tool
  - Command line suggestions
  - Help System
MATLAB Toolstrip
Find what you need

- Tabs organize commonly used functionality

- Functionality only appears when needed
Agenda

- MATLAB Toolstrip
- MATLAB apps
  - Import Tool
  - Command line suggestions
- Help System
What are MATLAB Apps?

- Interactive MATLAB programs that include a GUI
- Apps are included in many MATLAB products
- There are also many user-written apps
MATLAB Apps Gallery

- Tab within the MATLAB Toolstrip

- Prominently displays both user-written apps and apps included in MATLAB products

- Makes it easy to find and launch MATLAB apps
Packaging and Sharing MATLAB Apps

- Automatically includes all necessary files
- Documents required products
- Creates single installation file for easy distribution and installation into the MATLAB apps gallery
Getting More Apps

MATLAB Apps

Finding, creating, and sharing MATLAB apps

File Exchange

Search Files

Files
Categories
Authors
Tags
Comments

Sort By: Date Updated (Newest - Oldest)

GPUBench by Ben Torode
Compare GPUs using standard numerical benchmarks in MATLAB. (gpu, performance, benchmark)

Simple Stock Ticker by David
A simple stock ticker app written with a MATLAB class (class, oop)

Monte Carlo Simulation with Simulink by Ryan G
Select blocks to vary parameters for Monte Carlo Simulation. (control design, simulink, gui)
Agenda

- MATLAB Toolstrip
- MATLAB apps
  - Import Tool
- Command line suggestions
- Help System
**Knots Contest**

**Latest News**

**The Problem:** Given a deranged hairball of a knot, can you untie it?

In more software-friendly terms, the problem can be restated as this: given a list of points and their connectivity, as supplied by an adjacency matrix, move them around so that the lines do not cross.

To get started, read the Contest Rules and download the zip file. If you have questions or comments, please post to the MATLAB Central internal newsgroup.

[>> More from the Contest Blog]

<table>
<thead>
<tr>
<th>Submit Date</th>
<th>Rank</th>
<th>Title</th>
<th>Player</th>
<th>Results</th>
<th>CPU Time</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 25 18:16</td>
<td>1</td>
<td>bunch nodes</td>
<td>Navan Ruthramoorthy</td>
<td>84263</td>
<td>1.257</td>
<td>84269.4</td>
</tr>
<tr>
<td>Oct 26 06:54</td>
<td>2</td>
<td>Smart Center</td>
<td>Mathijs Faase</td>
<td>84262</td>
<td>1.251</td>
<td>84270.4</td>
</tr>
<tr>
<td>Oct 25 13:41</td>
<td>3</td>
<td>SortedSmallCircle</td>
<td>Mathijs Faase</td>
<td>88249</td>
<td>1.096</td>
<td>88252.6</td>
</tr>
<tr>
<td>Oct 25 13:55</td>
<td>4</td>
<td>MostConnectedInMiddle</td>
<td>Gareth Thomas</td>
<td>89681</td>
<td>1.095</td>
<td>89686.5</td>
</tr>
<tr>
<td>Oct 25 13:08</td>
<td>5</td>
<td>SmallCircle</td>
<td>Mathijs Faase</td>
<td>338721</td>
<td>0.013</td>
<td>338721.0</td>
</tr>
</tbody>
</table>
Presidential debates: 10 datasets and charts you need to know

The US Presidential debates are over. So, what are the key datasets to help you understand the issues that were raised?

- Download the data
- More data journalism and data visualisations from the Guardian
Import Tool

- Interactive import of delimited and fixed-width text files
- Improved handling of dates and text
- Define rules for handling nonnumeric values
- Automatically generate MATLAB code
Agenda

- MATLAB Toolstrip
- MATLAB apps
- Import Tool
  - Command line suggestions
- Help System
Command Line Suggestions

- Suggested corrections for mistyped code
- Enter runs the suggested command
- Esc deletes it
Agenda

- MATLAB Toolstrip
- MATLAB apps
- Import Tool
- Command line suggestions
- Help System
Documentation Center and Redesigned Help

- Content organized by topic rather than content type

- Browser-like interface, with improved search
  - Facets allow users to filter search results
  - Multiple tabs

- Documentation installed locally
  - Option to use the online Documentation Center

Demos are now “Examples”
When did @MATLAB’s online help become so iPhone friendly? #Awesome!

4:39 PM - 29 Oct 12 from Austin, TX · Embed this Tweet
3-D shaded surface plot - MATLAB

Search R2012b Documentation

MATLAB  ...  ...  ... Surface and Mesh Plots

surf
3-D shaded surface plot

Syntax

surf(Z)
surf(Z,C)
surf(X,Y,Z)
surf(X,Y,Z,C)
surf(...,'PropertyName',PropertyValue)
surf(axes_handles,...)
MATLAB Mobile for Android

MATLAB Mobile

>> ezsurf('sqrt(1-x^2-y^2)')

>> ezmesh('y^2 - x^2',[-3 3],[-3 3])

>> imagesc(magic(5))

>> plotData
Learn More
