

## Time it took to complete program











### Command Window

```
97.00% Loaded  
97.50% Loaded  
98.00% Loaded  
98.50% Loaded  
99.00% Loaded  
99.50% Loaded  
100.00% Loaded  
Elapsed time is 10746.365990 seconds.  
fx >>
```

10746.365990 seconds = 2 hours 59 minutes 6.365990000000238 seconds

### Profile Summary

Generated 02-Jun-2018 00:07:15 using performance time.

<a href="#">Function Name</a>	<a href="#">Calls</a>	<a href="#">Total Time</a>	<a href="#">Self Time*</a>	Total Time Plot (dark band = self time)
<a href="#">CPU_Sort_Data</a>	1	10746.366 s	49.142 s	
<a href="#">getframe</a>	201	10163.727 s	3459.812 s	
<a href="#">Scatter.doUpdate</a>	201	6092.766 s	6064.237 s	
<a href="#">graphics/private/alternateGetframe</a>	201	605.226 s	0.025 s	
<a href="#">getframeWithDecorations</a>	201	605.196 s	605.161 s	
<a href="#">scatter3</a>	201	527.980 s	0.259 s	
<a href="#">newplot</a>	201	526.829 s	0.048 s	
<a href="#">newplot&gt;ObserveAxesNextPlot</a>	201	526.728 s	0.041 s	
<a href="#">cla</a>	201	526.686 s	0.020 s	
<a href="#">graphics/private/clo</a>	201	526.596 s	526.596 s	
<a href="#">Scatter.Scatter&gt;Scatter.set.MarkerHandle</a>	201	27.608 s	27.608 s	
<a href="#">Scatter.getXYZDataExtents</a>	201	5.880 s	0.814 s	
<a href="#">..VideoWriter&gt;VideoWriter.writeVideo</a>	201	5.209 s	0.448 s	
<a href="#">arraytolimits</a>	201	4.176 s	4.176 s	
<a href="#">IProfile&gt;IProfile.writeVideoFrame</a>	201	4.101 s	0.005 s	
<a href="#">...tionIpegAviFilePlugin.writeVideoFrame</a>	201	4.096 s	0.026 s	
<a href="#">...ugin&gt;AviFilePlugin.writeVideoFrame</a>	201	4.070 s	0.014 s	
<a href="#">OutputStream&gt;OutputStream.write</a>	201	4.038 s	0.022 s	

## CPU\_Sort\_Data (Calls: 1, Time: 10746.366 s)

Generated 02-Jun-2018 00:12:44 using performance time.

script in file [/home/eemaj/lorja/EE147\\_PROJECT/CPU\\_Sort\\_Data.m](#)

[Copy to new window for comparing multiple runs](#)



Refresh

☒ Show parent functions    ☒ Show busy lines    ☒ Show child functions  
☒ Show Code Analyzer results ☒ Show file coverage ☒ Show function listing



### Parents (calling functions)

No parent

### Lines where the most time was spent

Line Number	Code	Calls	Total Time	% Time	Time Plot
<a href="#">28</a>	currentFrame = getframe(h);	201	10163.740 s	94.6%	
<a href="#">23</a>	scatter3(coordinate(:,1,i),coo...	201	528.165 s	4.9%	
<a href="#">9</a>	load('data_new.mat')	1	44.876 s	0.4%	
<a href="#">30</a>	writeVideo(obj,currentFrame);	201	5.213 s	0.0%	
<a href="#">19</a>	if color(j,1) < .45        %4...	20906814	1.092 s	0.0%	
All other lines			3.281 s	0.0%	
Totals			10746.366 s	100%	

### Children (called functions)

Function Name	Function Type	Calls	Total Time	% Time	Time Plot
<a href="#">getframe</a>	function	201	10163.727 s	94.6%	
<a href="#">scatter3</a>	function	201	527.980 s	4.9%	
<a href="#">...VideoWriter&gt;VideoWriter.writeVideo</a>	class method	201	5.209 s	0.0%	
<a href="#">...ideoWriter&gt;VideoWriter.VideoWriter</a>	class method	1	0.120 s	0.0%	
<a href="#">...iter.VideoWriter&gt;VideoWriter.close</a>	class method	1	0.087 s	0.0%	
<a href="#">view</a>	function	201	0.066 s	0.0%	
<a href="#">daspect</a>	function	201	0.030 s	0.0%	
<a href="#">VideoWriter.VideoWriter&gt;VideoWriter.open</a>	class method	1	0.006 s	0.0%	
Self time (built-ins, overhead, etc.)			49.142 s	0.5%	
Totals			10746.366 s	100%	

### Code Analyzer results

No Code Analyzer messages.

## Coverage results

[Show coverage for parent directory](#)

Total lines in function	39
Non-code lines (comments, blank lines)	14
Code lines (lines that can run)	25
Code lines that did run	25
Code lines that did not run	0
Coverage (did run/can run)	100.00 %

## Function listing

Color highlight code according to

time	Calls	line	
< 0.01	1	<u>3</u>	tic
		4	
		5	%% change directory
< 0.01	1	<u>6</u>	cd('/home/eemaj/jborja/EE147_PROJECT')
		7	
		8	%% load data
44.68	1	<u>9</u>	load('data_new.mat')
		10	
0.05	1	<u>11</u>	h = figure;
		12	%Create Object to create video
0.12	1	<u>13</u>	obj = VideoWriter('CPU_3D_damage.avi');
< 0.01	1	<u>14</u>	open(obj);
		15	
< 0.01	1	<u>16</u>	for i = 300:500
0.07	201	<u>17</u>	color = damage(:,i); %damage is the percentenge of the number of bonds broken
< 0.01	201	<u>18</u>	for j = 1:atoms
1.09	20906814	<u>19</u>	if color(j,1) < .45 %45 percent is standard accepted value of broken glass
0.89	18026282	<u>20</u>	color(j) = .000001; %close to zero
0.83	18026282	<u>21</u>	end
1.05	20906814	<u>22</u>	end
528.16	201	<u>23</u>	scatter3(coordinate(:,1,i),coordinate(:,2,i),coordinate(:,3,i),color)
0.03	201	<u>24</u>	daspect([1 1 1])
0.07	201	<u>25</u>	view([70 50])
< 0.01	201	<u>26</u>	pos_h = [0 0 1362 687]; % Adjusted to indidual user's PC
0.02	201	<u>27</u>	set(h,'Position',pos_h)
10163.74	201	<u>28</u>	currentFrame = getframe(h);
		29	
5.21	201	<u>30</u>	writeVideo(obj,currentFrame);
		31	
		32	%Display percent complete
< 0.01	201	<u>33</u>	num = (i-300)/200 * 100;
0.05	201	<u>34</u>	fprintf('%.2f%% Loaded\n',num)
		35	
< 0.01	201	<u>36</u>	end
		37	
0.09	1	<u>38</u>	close(obj);
		39	
		40	%End the stopwatch
< 0.01	1	<u>41</u>	toc

getframe (Calls: 201, Time: 10163.727 s)

Generated 02-jun-2018 00:15:09 using performance time.  
function in file [jusr/local/MATLAB/R2016b/toolbox/matlab/graphics/getframe.m](#)  
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Refresh

☒ Show parent functions    ☒ Show busy lines    ☒ Show child functions  
☒ Show Code Analyzer results    ☒ Show file coverage    ☒ Show function listing

Parents (calling functions)

Function Name	Function Type	Calls
<a href="#">CPU_Sort_Data</a>	script	201

Lines where the most time was spent

Line Number	Code	Calls	Total Time	% Time	Time Plot
<a href="#">53</a>	drawnow;	201	9512.231 s	93.6%	<div></div>
<a href="#">111</a>	x = alternateGetframe(parentFi...	201	605.228 s	6.0%	<div></div>
<a href="#">54</a>	drawnow;	201	46.230 s	0.5%	
<a href="#">56</a>	parentFig = ancestor(h, 'figur...	201	0.018 s	0.0%	
<a href="#">42</a>	if isa(h,'matlab.ui.control.UI...	201	0.005 s	0.0%	
All other lines			0.015 s	0.0%	
Totals			10163.727 s	100%	

Children (called functions)

Function Name	Function Type	Calls	Total Time	% Time	Time Plot
<a href="#">Scatter.doUpdate</a>	function	201	6092.766 s	59.9%	<div></div>
<a href="#">graphics/private/alternateGetframe</a>	function	201	605.226 s	6.0%	<div></div>
<a href="#">Scatter.getXYZDataExtents</a>	function	201	5.880 s	0.1%	
<a href="#">Scatter.getColorAlphaDataExtents</a>	function	201	0.043 s	0.0%	
Self time (built-ins, overhead, etc.)			3459.812 s	34.0%	<div></div>
Totals			10163.727 s	100%	

Code Analyzer results  
No Code Analyzer messages.

Coverage results  
[Show coverage for parent directory](#)

Total lines in function	116
Non-code lines (comments, blank lines)	66
Code lines (lines that can run)	50
Code lines that did run	15
Code lines that did not run	35
Coverage (did run/can run)	30.00 %

## Scatter.doUpdate (Calls: 201, Time: 6092.766 s)

Generated 02-Jun-2018 00:16:11 using performance time.

function in file /usr/local/MATLAB/R2016b/toolbox/matlab/specgraph/+matlab/+graphics/+chart/+primitive/@Scatter/doUpdate.p

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This is a P-file for which there is no corresponding MATLAB code file

Refresh

- ☒ Show parent functions    ☒ Show busy lines    ☒ Show child functions  
☒ Show Code Analyzer results    ☒ Show file coverage    ☒ Show function listing


### Parents (calling functions)

Function Name	Function Type	Calls
<a href="#">getframe</a>	function	201

### Lines where the most time was spent

No MATLAB code to display

### Children (called functions)

Function Name	Function Type	Calls	Total Time	% Time	Time Plot
<a href="#">Scatter.Scatter&gt; Scatter.set.MarkerHandle</a>	class method	201	27.608 s	0.5%	
<a href="#">isInvalidInLogScale</a>	function	603	0.609 s	0.0%	
<a href="#">Scatter.cacheLegendIconColors</a>	function	201	0.129 s	0.0%	
<a href="#">...catter&gt; Scatter.get.MarkerFaceColor</a>	class method	402	0.046 s	0.0%	
<a href="#">...catter&gt; Scatter.get.MarkerEdgeColor</a>	class method	402	0.033 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.get.Marker</a>	class method	201	0.016 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.get.SizeData</a>	class method	201	0.015 s	0.0%	
<a href="#">...catter&gt; Scatter.get.MarkerFaceAlpha</a>	class method	201	0.015 s	0.0%	
<a href="#">...catter&gt; Scatter.get.MarkerEdgeAlpha</a>	class method	201	0.013 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.get.LineWidth</a>	class method	201	0.013 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.get.CData</a>	class method	201	0.010 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.get.BrushHandles</a>	class method	529	0.006 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.set.MarkerOrder</a>	class method	201	0.006 s	0.0%	
<a href="#">Scatter.Scatter&gt; Scatter.get.MarkerHandle</a>	class method	312	0.005 s	0.0%	
<a href="#">...catter&gt; Scatter.get.SelectionHandle</a>	class method	201	0.005 s	0.0%	
Self time (built-ins, overhead, etc.)			6064.237 s	99.5%	
Totals			6092.766 s	100%	

**Code Analyzer results**

No MATLAB code to display

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**Coverage results**

No MATLAB code to display

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**Function listing**

No MATLAB code to display

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graphics/private/alternateGetframe (Calls: 201, Time: 605.226 s)

Generated 02-jun-2018 00:17:50 using performance time.

function in file /usr/local/MATLAB/R2016b/toolbox/matlab/graphics/private/alternateGetframe.p

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Refresh

- ☒ Show parent functions
- ☒ Show busy lines
- ☒ Show child functions
- ☒ Show Code Analyzer results
- ☒ Show file coverage
- ☒ Show function listing

Parents (calling functions)

Function Name	Function Type	Calls
<a href="#">getframe</a>	function	201

Lines where the most time was spent

No MATLAB code to display

Children (called functions)

Function Name	Function Type	Calls	Total Time	% Time	Time Plot
<a href="#">getframeWithDecorations</a>	function	201	605.196 s	100.0%	<div></div>
<a href="#">isFigureShowEnabled</a>	function	201	0.004 s	0.0%	
Self time (built-ins, overhead, etc.)			0.025 s	0.0%	
Totals			605.226 s	100%	

Code Analyzer results

No MATLAB code to display

Coverage results

No MATLAB code to display

Function listing

No MATLAB code to display