brutForce (Calls: 1000, Time: 948.949 s)

Generated 28-дек.-2020 04:19:20 using performance time.
Function in file C:\Users\yarba\Desktop\ДО\course_4\code\brutForce.m
Copy to new window for comparing multiple runs

Parents (calling functions)

Function Name	Function Type	Calls
ImageProcessing	Script	1000

Lines that take the most time

Line Number	Code	Calls	Total Time (s)	% Time	Time Plot
33	`if(squeeze(imageGS(j, i, :)) ~= 0)`	360960000	921.942	97.2%	
37	`end`	360960000	13.645	1.4%	
38	`end`	360960000	12.373	1.3%	
34	`coloredX(end + 1) = i;`	1484025	0.386	0.0%	
35	`coloredY(end + 1) = j;`	1484025	0.269	0.0%	
All other lines			0.334	0.0%	
Totals			948.949	100%	

Children (called functions)

Function Name	Function Type	Calls	Total Time (s)	% Time	Time Plot
squeeze	Function	360960000	330.565	34.8%	
deg2rad	Function	1000	0.006	0.0%	
Self time (built-ins, overhead, etc.)			618.378	65.2%	
Totals			948.949	100%	

Code Analyzer results

Line Number	Message
4	`The value assigned to variable 't' might be unused.`
5	`The value assigned to variable 'h' might be unused.`
11	`The value assigned to variable 'pxH' might be unused.`
18	`The value assigned to variable 'yPx' might be unused.`
19	`The value assigned to variable 'defPxRadius' might be unused.`
23	`The value assigned to variable 'x' might be unused.`
24	`The value assigned to variable 'y' might be unused.`
29	`The value assigned to variable 'isFlag' might be unused.`
34	`The variable 'coloredX' appears to change size on every loop iteration. Consider preallocat…`
35	`The variable 'coloredY' appears to change size on every loop iteration. Consider preallocat…`
36	`The value assigned to variable 'isFlag' might be unused.`
47	`Using ISEMPTY is usually faster than comparing LENGTH to 0.`
47	`Using ISEMPTY is usually faster than comparing LENGTH to 0.`

Coverage results

Show coverage for parent folder

Total lines in function	60
Non-code lines (comments, blank lines)	21
Code lines (lines that can run)	39
Code lines that did run	39
Code lines that did not run	0
Coverage (did run/can run)	100.00 %

Function listing

```
    Time            Calls               Line
                                          1   function [brutX, brutY] = brutForce(imageGS)
```

		2	% параметры устройства
< 0.001	1000	3	d = 0.0003; % диаметр отверстия
< 0.001	1000	4	t = 0.00005; % толщина отверстия
< 0.001	1000	5	h = 0.0007; % высота отверстия
		6	
0.056	1000	7	format long
< 0.001	1000	8	height = 4.51e-3; % Размеры матрицы
< 0.001	1000	9	width = 2.88e-3;
< 0.001	1000	10	pxW = 752;
< 0.001	1000	11	pxH = 480;
< 0.001	1000	12	pxSize = width / pxW;
		13	
0.014	1000	14	angle = deg2rad(0 : 359); % вспомогательный массив углов
0.018	1000	15	defCircleX = (d/2) * cos(angle); % координата x контура пятна
0.009	1000	16	defCircleY = (d/2) * sin(angle); % координата y контура пятна
0.004	1000	17	xPx = ceil((defCircleX + width/2) / pxSize); % x - контур пятна в пикселях
0.004	1000	18	yPx = ceil((defCircleY + height/2) / pxSize); % y - контур пятна в пикселях
0.003	1000	19	defPxRadius = ceil((max(xPx) - min(xPx)) / 2);
		20	
< 0.001	1000	21	columns = 752;
< 0.001	1000	22	rows = 480;
0.004	1000	23	x = 1:columns;
0.002	1000	24	y = 1:rows;
		25	
< 0.001	1000	26	coloredX = [];
< 0.001	1000	27	coloredY = [];
		28	
< 0.001	1000	29	isFlag = false;
		30	
< 0.001	1000	31	for i = 1 : columns
0.077	752000	32	for j = 1 : rows
921.942	360960000	33	if(squeeze(imageGS(j, i, :)) ~= 0)
0.386	1484025	34	coloredX(end + 1) = i;
0.269	1484025	35	coloredY(end + 1) = j;
0.046	1484025	36	isFlag = true;
13.645	360960000	37	end
12.373	360960000	38	end
0.076	752000	39	end
		40	
		41	% if (length(coloredX) ~= 0 && length(coloredY) ~= 0)
		42	
		43	% for i = 1 : length(coloredX)
		44	% imageProcessed(coloredY(i), coloredX(i), [2 2 2]) = 1;
		45	% end
		46	
0.002	1000	47	if (length(coloredX) == 0 || length(coloredY) == 0)
< 0.001	107	48	brutX = 0;
< 0.001	107	49	brutY = 0;
< 0.001	107	50	return;
< 0.001	893	51	end
0.003	893	52	brutX = ceil(sum(coloredX) / length(coloredX));
0.001	893	53	brutY = ceil(sum(coloredY) / length(coloredY));
		54	% if (ansX > 0 && ansX <= pxW)
		55	% if (ansY > 0 && ansY <= pxH)
		56	% imageProcessed(yAns1, xAns1, [2 1 2]) = 5;
		57	% end
		58	% end
		59	% end
0.008	893	60	end