SPARSEfun2DC (Calls 2400, Time: 11.293 s)

Generated 16-May-2017 09:58:46 using performance time.
function in file C:\Gits\IndiEngiSchola\Matlab\SFDTD\SPARSEfun2DC.m
Copy to new window for comparing multiple runs

Refresh

☑ Show parent functions ☑ Show busy lines ☑ Show child fu
☑ Show Code Analyzer results ☑ Show file coverage ☑ Show functic

Parents (calling functions)

Function Name	Function Type	Calls
SFDTD2Dtesting	script	2400

Lines where the most time was spent

Line Number	Code	Calls	Total Time	% Time
13	`idx = imfilter(temp2,PSF,'symm...`	2400	7.922 s	70.2%
5	`PSF = fspecial('gaussian',7,10...`	2400	2.470 s	21.9%
11	`temp2(temp2 > 1) = 1;`	2400	0.369 s	3.3%
9	`temp2 = floor(temp);`	2400	0.276 s	2.4%
7	`temp = abs(p) ./ threshold;`	2400	0.181 s	1.6%
All other lines			0.074 s	0.7%
Totals			11.293 s	100%

Children (called functions)

-
-

unctions

on listing

Time Plot

Function Name	Function Type	Calls	Total Time	% Time	Time Plot
imfilter	function	2400	7.624 s	67.5%	
fspecial	function	2400	2.010 s	17.8%	
Self time (built-ins, overhead, etc.)			1.659 s	14.7%	
Totals			11.293 s	100%	

Code Analyzer results
No Code Analyzer messages.

Coverage results
Show coverage for parent directory

Total lines in function	14
Non-code lines (comments, blank lines)	7
Code lines (lines that can run)	7
Code lines that did run	7
Code lines that did not run	0
Coverage (did run/can run)	100.00 %

Function listing
Color highlight code according to time

```
  time    Calls    line
                      1  function [idx] = SPARSEfun2DC(p, thresholddB, p0
                      2  %Transform threshold to Pa
< 0.01     2400      3  threshold = p0 * 10^(thresholddB/20);
                      4  %Calculate blurring filter
  2.47     2400      5  PSF = fspecial('gaussian',7,10);
                      6  %Create copy of p that is normalised by threshol
  0.18     2400      7  temp = abs(p) ./ threshold;
                      8  %Set the 'quiet' regions to 0
  0.28     2400      9  temp2 = floor(temp);
                     10  %Reduce values above 1 to 1, so that blurring is
  0.37     2400     11  temp2(temp2 > 1) = 1;
                     12  %Convolve 2d matrix with gaussian blurring filte
  7.92     2400     13  idx = imfilter(temp2,PSF,'symmetric','conv');
  0.01     2400     14  end
```

0)

ld

ent too strong in some areas

er to smooth

Other subfunctions in this file are not included in this listing.