












Profile Summary

Generated 16-Jul-2016 18:44:49 using performance time.

Function Name	Calls	Total Time	Self Time*	Total Time Plot (dark band = self time)
dPendCartMain	1	18.172 s	0.010 s	
trajOpt2	1	18.159 s	0.022 s	
fmincon	1	18.033 s	0.046 s	
barrier	1	17.093 s	0.180 s	
optim\private\computeTrialStep	5	12.751 s	0.018 s	
optim\private\formAndFactorKKTmatrix	5	12.359 s	0.020 s	
...AndFactorKKTmatrix>factorKKTmatrix	5	11.887 s	11.887 s	
...>@(decVars)nlConFun(decVars,param)	6	4.707 s	0.001 s	
trajOpt2>nlConDirCol	6	4.706 s	0.135 s	
trajOpt2>dircolFiniteDiffGrads	1194	3.745 s	0.908 s	
doublePendCartEom	111042	3.053 s	1.691 s	
doublePendCart_auto	111042	1.363 s	1.363 s	
trajOpt2>plotPhaseDiagram	6	0.512 s	0.237 s	
...rmAndFactorKKTmatrix>formKKTmatrix	5	0.452 s	0.449 s	
optim\private\backsolveSys	7	0.370 s	0.370 s	
optim\private\solveKKTsystem	5	0.364 s	0.002 s	
subplot	4	0.153 s	0.103 s	
workspacefunc	5	0.126 s	0.043 s	
optim\private\computeHessian	6	0.100 s	0.100 s	

cell2mat	1194	0.097 s	0.097 s	
mdbfileonpath	1	0.077 s	0.019 s	
optimoptions	2	0.068 s	0.004 s	
createSolverOptions	2	0.064 s	0.002 s	
...in>optim.options.Fmincon(varargin{:})	2	0.062 s	0.001 s	
Fmincon>Fmincon.Fmincon	2	0.060 s	0.002 s	
...ithm>MultiAlgorithm.MultiAlgorithm	2	0.059 s	0.002 s	
...ptions>SolverOptions.SolverOptions	2	0.057 s	0.010 s	
workspacefunc>getShortValueObjectJ	48	0.050 s	0.015 s	
subplot>addAxesToGrid	4	0.044 s	0.018 s	
SolverOptions>SolverOptions.setProperty	11	0.038 s	0.010 s	
mdbfileonpath>checkIfShadowed	1	0.035 s	0.004 s	
workspacefunc>num2complex	39	0.034 s	0.007 s	
newplot	4	0.031 s	0.005 s	
xlabel	3	0.030 s	0.028 s	
optim\private\formJacobian	6	0.028 s	0.023 s	
optim\private\inlpStopTest	6	0.027 s	0.023 s	
ylabel	4	0.026 s	0.023 s	
newplot>ObserveAxesNextPlot	4	0.025 s	0.003 s	
checkfield	11	0.024 s	0.012 s	
loadTrajectory	1	0.024 s	0.007 s	
...ager>@(o,e)subplotlayout(ax,e,fig)	1	0.023 s	0.007 s	
...ubplotListenersManager.addToListeners	4	0.022 s	0.018 s	
prepareOptionsForSolver	1	0.021 s	0.002 s	
cla	4	0.021 s	0.005 s	
createExitMsg	1	0.021 s	0.021 s	
workspacefunc>getWhosInformation	2	0.020 s	0.020 s	

optim\private\updatePenaltyParam	5	0.019 s	0.012 s	
...rithm>MultiAlgorithm.set.Algorithm	1	0.018 s	0.008 s	
workspacefunc>getAbstractValueSummaryJ	20	0.017 s	0.011 s	
mdbfileonpath>filepartsWithoutPackages	2	0.016 s	0.001 s	
optim\private\leastSquaresLagrangeMults	2	0.015 s	0.004 s	
optim\private\formAndFactorAugMatrix	1	0.015 s	0.001 s	
mdbfileonpath>removePackageDirs	2	0.014 s	0.001 s	
interp1	7	0.014 s	0.008 s	
barrier>nlpInterfaceFcn	7	0.013 s	0.012 s	
...ultiAlgorithm.extractOptionsStructure	1	0.013 s	0.005 s	
graphics\private\clo	4	0.013 s	0.013 s	
optim\private\solveAugSystem	2	0.011 s	0.003 s	
...AndFactorAugMatrix>factorAugMatrix	1	0.011 s	0.011 s	
optimfcnchk	2	0.011 s	0.008 s	
getlpOptions	1	0.011 s	0.008 s	
fullfile	5	0.011 s	0.006 s	
strcat	2	0.010 s	0.010 s	
close	1	0.009 s	0.006 s	
spdiags	22	0.009 s	0.009 s	
workspacefunc>getCleanupHandler	2	0.009 s	0.005 s	
...er>SubplotListenersManager.disable	1	0.009 s	0.009 s	
mdbfileonpath>getFileToRun	1	0.009 s	0.002 s	
optim\private\formLambdaStruct	1	0.009 s	0.009 s	
Fmincon>Fmincon.set.UseParallel	1	0.008 s	0.001 s	
Fmincon>Fmincon.set.TolFun	1	0.008 s	0.001 s	
fileparts	7	0.008 s	0.007 s	
optim\private\hessTimesVector	5	0.008 s	0.008 s	

Fmincon>Fmincon.replaceSpecialStrings	1	0.008 s	0.001 s	
replaceFinDiffRelStepString	1	0.007 s	0.002 s	
...ger>SubplotListenersManager.enable	1	0.007 s	0.007 s	
num2str	3	0.007 s	0.004 s	
barrier>initialization	1	0.007 s	0.007 s	
optimget	39	0.006 s	0.003 s	
optim\private\barrierTestAndUpdate	5	0.006 s	0.001 s	
workspacefunc>createComplexVector	9	0.005 s	0.004 s	
mdbContextonpath>areDirectoriesEqual	1	0.005 s	0.002 s	
workspacefunc>getclass	20	0.005 s	0.005 s	
optim\private\setSizes	1	0.005 s	0.005 s	
interp1>parseinputs	7	0.005 s	0.004 s	
workspacefunc>createComplexScalar	10	0.005 s	0.003 s	
validateopts__UseParallel	8	0.005 s	0.005 s	
...2>@(decVars)costfun(decVars,param)	6	0.005 s	0.001 s	
graph2d\private\labelcheck	7	0.005 s	0.003 s	
...rierTestAndUpdate>barrierStopTest	5	0.004 s	0.004 s	
Fmincon>Fmincon.set.FinDiffRelStep	1	0.004 s	0.000 s	
onCleanup>onCleanup.onCleanup	2	0.004 s	0.004 s	
Fmincon>Fmincon.createOptionFeedback	1	0.004 s	0.004 s	
opt...vate\fractionToBoundaryHonorBounds	5	0.004 s	0.004 s	
Fmincon>Fmincon.set.MaxFunEvals	1	0.004 s	0.001 s	
setOptimFcnHandleOnWorkers	1	0.004 s	0.002 s	
...>SolverOptions.setPropertyNoChecks	11	0.004 s	0.004 s	
subplot>datasiblings	4	0.004 s	0.004 s	
shiftInitPtToInterior	1	0.004 s	0.004 s	
trajOpt2>costfun	6	0.004 s	0.004 s	

isoptimargdbl	2	0.004 s	0.004 s
opaque.strcmpi	1	0.004 s	0.001 s
onCleanup>onCleanup.delete	2	0.004 s	0.002 s
classifyBoundsOnVars	1	0.004 s	0.003 s
graphics\private\claNotify	4	0.003 s	0.003 s
codetools\private\dataviewerhelper	19	0.003 s	0.002 s
optim\private\formConstraints	6	0.003 s	0.003 s
fullfile>ensureTrailingFilesep	5	0.003 s	0.001 s
optim\private\xFixedAndBounds	5	0.003 s	0.003 s
Fmincon>Fmincon.set.GradObj	1	0.003 s	0.001 s
@opaque\private\fromOpaque	2	0.003 s	0.001 s
optim\private\computeFinDiffGradAndJac	6	0.003 s	0.003 s
isdir	6	0.003 s	0.003 s
checkbounds	1	0.003 s	0.003 s
int2str	3	0.003 s	0.003 s
...rmAndFactorAugMatrix>formAugMatrix	1	0.003 s	0.002 s
optim\private\fractionToBoundary	5	0.003 s	0.003 s
grid	3	0.003 s	0.003 s
...otListenersManager>find3emptycells	3	0.003 s	0.003 s
optimget>optimgetfast	39	0.003 s	0.003 s
fcnchk	2	0.003 s	0.003 s
orderfields	1	0.003 s	0.003 s
getNumericOrStringFieldValue	4	0.003 s	0.002 s
ishold	4	0.002 s	0.002 s
checkfield>nonNegInteger	2	0.002 s	0.002 s
mdbfileonpath>doesFileExist	5	0.002 s	0.002 s
optim\private\fractionToBoundaryScaled	5	0.002 s	0.002 s

checkfield>stringsType	4	0.002 s	0.002 s	
mdbfileonpath>isPrivate	1	0.002 s	0.001 s	
linspace	20	0.002 s	0.002 s	
checkfield>posVectorType	1	0.002 s	0.002 s	
checkfield>nonNegReal	3	0.002 s	0.002 s	
mdbfileonpath>isPackageDirectory	3	0.002 s	0.001 s	
mdbfileonpath>isFileInPackage	1	0.002 s	0.001 s	
fullfile>addTrailingFileSep	5	0.002 s	0.002 s	
...pace.MatlabWorkspaceListener.swl(swI)	2	0.002 s	0.002 s	
mdbfileonpath>isObject	1	0.002 s	0.001 s	
graph2d\private\subplot_parseargs	4	0.002 s	0.002 s	
sym.sym>sym.loadobj_	9	0.002 s	0.002 s	
fullfile>refinePath	5	0.002 s	0.002 s	
...tenersManager.SubplotListenersManager	1	0.002 s	0.002 s	
opaque.char	2	0.002 s	0.002 s	
Fmincon>Fmincon.set.Display_	1	0.002 s	0.001 s	
...DeleteListenersManager.addToListeners	4	0.002 s	0.002 s	
newplot>ObserveFigureNextPlot	4	0.002 s	0.002 s	
validateFinDiffRelStep	1	0.002 s	0.002 s	
close>safegetchildren	1	0.002 s	0.002 s	
...ons>SolverOptions.convertForSolver	1	0.001 s	0.001 s	
...viewerhelper>upconvertIntegralType	19	0.001 s	0.001 s	
...plotListenersManager>findemptycell	3	0.001 s	0.001 s	
interp1>sanitycheckmethod	7	0.001 s	0.001 s	
gra...labelcheck>local_validlabelobj	1	0.001 s	0.001 s	
barrier>displayHeader	1	0.001 s	0.001 s	
...:@(o,e)subplotlayoutInvalid(ax,e,fig)	7	0.001 s	0.001 s	

...:@()MLFileUtils.isMdlFile(inFilename)	2	0.001 s	0.001 s
sym.sym>sym.delete	9	0.001 s	0.001 s
mdbfileonpath>areFileNamesEqual	2	0.001 s	0.001 s
optim\private\accStepTRupdate	5	0.001 s	0.001 s
Fmincon>Fmincon.set.TolCon	1	0.001 s	0.001 s
classifyBoundsOnVars>equalFloat	1	0.001 s	0.001 s
barrier>printLevel	1	0.001 s	0.001 s
interp1>parseValuesV	7	0.001 s	0.001 s
checkoptionsize	1	0.001 s	0.001 s
ispc	10	0.001 s	0.001 s
SolverOptions>SolverOptions.isSetByUser	4	0.001 s	0.001 s
close>checkfigs	1	0.001 s	0.001 s
Fmincon>Fmincon.set.MaxIter	1	0.001 s	0.000 s
Fmincon>Fmincon.set.TolX	1	0.001 s	0.001 s
optim\private\acceptanceTest	5	0.001 s	0.001 s
...Manager.SubplotDeleteListenersManager	4	0.001 s	0.001 s
...:@()MlxFileUtils.isMlxFile(inFilename)	1	0.001 s	0.001 s
blanks	2	0.001 s	0.001 s
Fmincon>Fmincon.get.FinDiffRelStep	2	0.001 s	0.001 s
filesep	2	0.001 s	0.001 s
Fmincon>Fmincon.set.GradConstr	1	0.001 s	0.000 s
close>getEmptyHandleList	1	0.001 s	0.001 s
close>request_close	1	0.001 s	0.001 s
...FileUtils.isNativeMexFile(inFilename)	1	0.001 s	0.001 s
...gt:@()MLFileUtils.isPFile(inFilename)	1	0.001 s	0.001 s
java.io.File (Java method)	10	0.001 s	0.001 s
optim\private\dampingProcedure	5	0.000 s	0.000 s

barrier>computeObjScalingFactor	1	0.000 s	0.000 s	
...s.mlwidgets.workspace.WhosInformation (Java method)	2	0.000 s	0.000 s	
barrier>displayUndefinedValueMsg	5	0.000 s	0.000 s	
...>SolverOptions.mapOptionsForSolver	1	0.000 s	0.000 s	
java.lang.String (Java method)	9	0.000 s	0.000 s	
symfun.symfun>symfun.delete	3	0.000 s	0.000 s	
...widgets.spreadsheet.data.ValueSummary (Java method)	13	0.000 s	0.000 s	

Self time is the time spent in a function excluding the time spent in its child functions. Self time also includes overhead resulting from the process of profiling.