Profile Summary

Function Name	Calls	Total Time	Self Time*	Total Time Plot (dark band = self time)
dPendCartMain	1	104.774 s	0.038 s	
trajOpt2	1	104.731 s	0.019 s	
fmincon	1	104.461 s	0.049 s	
barrier	1	103.809 s	0.168 s	
parallel_function	8	90.540 s	0.064 s	
parallel_function>distributed_execution	8	90.397 s	0.104 s	
optim\private\computeFinDiffGradAndJac	6	90.144 s	0.007 s	
parfinitedifferences	6	90.137 s	0.012 s	
...>remoteparfor.getCompleteIntervals	34	90.077 s	0.107 s	
java.util.concurrent.LinkedBlockingQueue (Java method)	120	89.833 s	89.833 s	
optim\private\computeTrialStep	5	13.071 s	0.025 s	
optim\private\formAndFactorKKTmatrix	5	12.667 s	0.020 s	
...AndFactorKKTmatrix>factorKKTmatrix	5	12.180 s	12.180 s	
...rmAndFactorKKTmatrix>formKKTmatrix	5	0.467 s	0.464 s	
optim\private\backsolveSys	7	0.378 s	0.378 s	
optim\private\solveKKTsystem	5	0.370 s	0.002 s	
setOptimFcnHandleOnWorkers	1	0.365 s	0.007 s	
...>@(decVars)nlConFun(decVars,param)	6	0.249 s	0.001 s	
trajOpt2>nlConDirCol	6	0.247 s	0.034 s	

[doublePendCartEom](#)	3582	0.211 s	0.062 s	
[close](#)	1	0.179 s	0.007 s	
[doublePendCart_auto](#)	3582	0.149 s	0.149 s	
[mdbfileonpath](#)	1	0.147 s	0.046 s	
[close>request_close](#)	1	0.134 s	0.006 s	
[remoteparfor>remoteparfor.addInterval](#)	40	0.128 s	0.007 s	
[workspacefunc](#)	6	0.126 s	0.044 s	
[optim\private\computeHessian](#)	6	0.117 s	0.117 s	
[closereq](#)	1	0.115 s	0.109 s	
[serialize](#)	64	0.107 s	0.028 s	
[...x.distcomp.pmode.ParforControllerImpl](#) (Java method)	216	0.090 s	0.090 s	
[remoteparfor>remoteparfor.displayOutput](#)	120	0.082 s	0.038 s	
[parallel_function>iMakeRemoteParfor](#)	8	0.060 s	0.004 s	
[workspacefunc>getShortValueObjectJ](#)	54	0.056 s	0.016 s	
[remoteparfor>remoteparfor.remoteparfor](#)	8	0.056 s	0.017 s	
[deserialize](#)	46	0.051 s	0.025 s	
[optimoptions](#)	1	0.047 s	0.002 s	
[createSolverOptions](#)	1	0.045 s	0.002 s	
[remoteparfor>remoteparfor.complete](#)	8	0.044 s	0.001 s	
[...in)optim.options.Fmincon(varargin{:})](#)	1	0.043 s	0.001 s	
[...arfor.awaitCompletionDisplayingOutput](#)	8	0.043 s	0.008 s	
[Fmincon>Fmincon.Fmincon](#)	1	0.043 s	0.001 s	
[...ithm>MultiAlgorithm.MultiAlgorithm](#)	1	0.042 s	0.001 s	
[...ptions>SolverOptions.SolverOptions](#)	1	0.040 s	0.005 s	
[workspacefunc>num2complex](#)	45	0.040 s	0.008 s	
[mdbfileonpath>checkIfShadowed](#)	1	0.039 s	0.004 s	

close>safegetchildren	1	0.037 s	0.006 s	
optim\private\formJacobian	6	0.037 s	0.029 s	
distcompserialize64 (MEX-file)	64	0.037 s	0.037 s	
fullfile	5	0.034 s	0.018 s	
maybeUpdateAttachedFiles	1	0.034 s	0.003 s	
optim\private\nlpStopTest	6	0.032 s	0.028 s	
distcompMakeByteBufferHandles (MEX-file)	64	0.031 s	0.031 s	
setdiff	2	0.030 s	0.003 s	
SolverOptions>SolverOptions.setProperty	9	0.030 s	0.007 s	
...:distributed_execution/consume_reduce	38	0.030 s	0.030 s	
setdiff>setdiffR2012a	2	0.027 s	0.006 s	
onCleanup>onCleanup.delete	20	0.026 s	0.003 s	
loadTrajectory	1	0.023 s	0.007 s	
optim\private\formAndFactorAugMatrix	1	0.022 s	0.002 s	
fileparts	7	0.021 s	0.018 s	
createExitMsg	1	0.021 s	0.021 s	
workspacefunc>getAbstractValueSummaryJ	24	0.021 s	0.014 s	
prepareOptionsForSolver	1	0.020 s	0.002 s	
remoteparfor>iDisplayStringArray	128	0.020 s	0.020 s	
gcp	2	0.019 s	0.003 s	
...upWorkers(pool,old_objfun,old_confun)	1	0.019 s	0.001 s	
barrier>nlpInterfaceFcn	7	0.019 s	0.014 s	
optim\private\leastSquaresLagrangeMults	2	0.019 s	0.005 s	
checkfield	9	0.019 s	0.009 s	
...mFcnHandleOnWorkers>CleanupWorkers	1	0.019 s	0.002 s	
PoolArrayManager>iManipulatePoolArray	74	0.018 s	0.013 s	
optim\private\updatePenaltyParam	5	0.017 s	0.010 s	

mdbfileonpath>filepartsWithoutPackages	2	0.017 s	0.001 s	
...AndFactorAugMatrix>factorAugMatrix	1	0.016 s	0.016 s	
...rithm>MultiAlgorithm.set.Algorithm	1	0.016 s	0.006 s	
workspacefunc>getWhosInformation	3	0.015 s	0.014 s	
mdbfileonpath>removePackageDirs	2	0.015 s	0.002 s	
ismember	3	0.014 s	0.003 s	
interp1	7	0.014 s	0.007 s	
getJavaFutureInterruptibly	8	0.014 s	0.008 s	
...ultiAlgorithm.extractOptionsStructure	1	0.013 s	0.005 s	
...rfor>remoteparfor.addFinalInterval	16	0.013 s	0.003 s	
optim\private\solveAugSystem	2	0.013 s	0.003 s	
...;FileManager.maybeUpdateAttachedFiles	1	0.013 s	0.003 s	
close>request_close_helper	2	0.013 s	0.007 s	
getIpOptions	1	0.012 s	0.009 s	
spdiags	22	0.012 s	0.012 s	
distcompByteBufferHandles2MxArray (MEX-file)	46	0.012 s	0.012 s	
unique	2	0.012 s	0.006 s	
mdbfileonpath>getFileToRun	1	0.011 s	0.005 s	
ismember>ismemberR2012a	3	0.011 s	0.006 s	
fullfile>ensureTrailingFilesep	5	0.011 s	0.003 s	
...anager>PoolArrayManager.getCurrent	64	0.011 s	0.002 s	
optimfcnchk	2	0.011 s	0.008 s	
...ox.distcomp.pmode.DrainableOutputImpl (Java method)	128	0.010 s	0.010 s	
barrier>initialization	1	0.010 s	0.010 s	
strcat	2	0.010 s	0.010 s	
distcompdeserialize (MEX-file)	46	0.010 s	0.010 s	

optim\private\barrierTestAndUpdate	5	0.009 s	0.002 s	
...oolArrayManager.getCurrentWithCleanup	1	0.008 s	0.001 s	
fullfile>addTrailingFileSep	5	0.008 s	0.008 s	
...ileManager.getJavaFilesToAddAndUpdate	1	0.008 s	0.006 s	
optim\private\hessTimesVector	5	0.007 s	0.007 s	
Fmincon>Fmincon.replaceSpecialStrings	1	0.007 s	0.000 s	
optim\private\formLambdaStruct	1	0.007 s	0.007 s	
...rrierTestAndUpdate>barrierStopTest	5	0.007 s	0.007 s	
workspacefunc>getCleanupHandler	3	0.007 s	0.004 s	
Fmincon>Fmincon.set.UseParallel	1	0.007 s	0.001 s	
replaceFinDiffRelStepString	1	0.007 s	0.002 s	
validatestring	1	0.007 s	0.002 s	
Pool.Pool>Pool.hGetIsUsable	22	0.006 s	0.006 s	
workspacefunc>getclass	24	0.006 s	0.006 s	
workspacefunc>createComplexScalar	12	0.006 s	0.004 s	
optimget	39	0.006 s	0.003 s	
workspacefunc>createComplexVector	9	0.006 s	0.004 s	
interp1>parseinputs	7	0.006 s	0.004 s	
Fmincon>Fmincon.set.TolFun	1	0.006 s	0.001 s	
optim\private\setSizes	1	0.006 s	0.006 s	
...arfor>remoteparfor.tryRemoteParfor	8	0.006 s	0.001 s	
unique>uniqueR2012a	2	0.005 s	0.005 s	
mdbfileonpath>areDirectoriesEqual	1	0.005 s	0.002 s	
ismember>ismemberClassTypes	3	0.005 s	0.005 s	
pctTryCreatePoolIfNecessary	8	0.005 s	0.002 s	
optim\private\formConstraints	6	0.005 s	0.005 s	
isoptimargdbl	2	0.005 s	0.005 s	

opt...vate\fractionToBoundaryHonorBounds	5	0.005 s	0.005 s	
Fmincon>Fmincon.set.FinDiffRelStep	1	0.004 s	0.000 s	
validateopts_UseParallel	8	0.004 s	0.004 s	
Pool.Pool>Pool.get.NumWorkers	4	0.004 s	0.002 s	
barrier>displayHeader	1	0.004 s	0.004 s	
...rmAndFactorAugMatrix>formAugMatrix	1	0.004 s	0.004 s	
...rayManager.getOrAutoCreateWithCleanup	9	0.004 s	0.001 s	
fullfile>refinePath	5	0.004 s	0.004 s	
onCleanup>onCleanup.onCleanup	20	0.004 s	0.004 s	
codetools\private\dataviewerhelper	21	0.004 s	0.002 s	
...oolbox.distcomp.util.ByteBufferHandle (Java method)	46	0.004 s	0.004 s	
...>SolverOptions.setPropertyNoChecks	9	0.004 s	0.004 s	
shiftInitPtToInterior	1	0.004 s	0.004 s	
...hworks.toolbox.distcomp.pmode.Session (Java method)	173	0.004 s	0.004 s	
parallel_function>divide_harmonic/div	8	0.004 s	0.003 s	
classifyBoundsOnVars	1	0.004 s	0.003 s	
mdbfileonpath>doesFileExist	5	0.004 s	0.003 s	
Fmincon>Fmincon.createOptionFeedback	1	0.004 s	0.004 s	
opaque.strcmpi	1	0.004 s	0.001 s	
...rforControllerImpl$IntervalResultImpl(Java method)	138	0.004 s	0.004 s	
getJavaFutureResult	8	0.003 s	0.003 s	
Fmincon>Fmincon.set.MaxFunEvals	1	0.003 s	0.000 s	
checkbounds	1	0.003 s	0.003 s	
validatestring>checkString	1	0.003 s	0.003 s	
optim\private\xFixedAndBounds	5	0.003 s	0.003 s	

....graphics.internal.axesDestroyed(o,e)	4	0.003 s	0.001 s	
...2>@(decVars)costfun(decVars,param)	6	0.003 s	0.001 s	
isdir	6	0.003 s	0.003 s	
parallel_function>results	8	0.003 s	0.003 s	
fcnchk	2	0.003 s	0.003 s	
getNumericOrStringFieldValue	4	0.003 s	0.003 s	
ispc	10	0.003 s	0.003 s	
@opaque\private\fromOpaque	2	0.003 s	0.001 s	
optimget>optimgetfast	39	0.003 s	0.003 s	
mdbfileonpath>isPackageDirectory	3	0.003 s	0.002 s	
...ger>SubplotListenersManager.delete	1	0.003 s	0.003 s	
...pace.MatlabWorkspaceListener.swl(swl)	3	0.003 s	0.003 s	
checkfield>posVectorType	1	0.002 s	0.002 s	
sym.sym>sym.loadobj	9	0.002 s	0.002 s	
...emote>AbstractRemote.saveLoadCount	16	0.002 s	0.002 s	
mdbfileonpath>isFileInPackage	1	0.002 s	0.001 s	
Pool.Pool>Pool.get.Connected	12	0.002 s	0.000 s	
trajOpt2>costfun	6	0.002 s	0.002 s	
orderfields	1	0.002 s	0.002 s	
optim\private\fractionToBoundary	5	0.002 s	0.002 s	
mdbfileonpath>isObject	1	0.002 s	0.001 s	
optim\private\fractionToBoundaryScaled	5	0.002 s	0.002 s	
checkfield>nonNegInteger	2	0.002 s	0.002 s	
linspace	20	0.002 s	0.002 s	
parfor_sliced_fcnhdl_check	8	0.002 s	0.002 s	
...sarmableOncleanup.DisarmableOncleanup	16	0.002 s	0.002 s	
mdbfileonpath>isPrivate	1	0.002 s	0.001 s	

axesDestroyed	4	0.002 s	0.002 s	
trajOpt2>plotPhaseDiagram	6	0.002 s	0.002 s	
validateFinDiffRelStep	1	0.002 s	0.002 s	
sym.sym>sym.delete	9	0.002 s	0.002 s	
Fmincon>Fmincon.set.Display	1	0.002 s	0.001 s	
parfor_range_check	2	0.002 s	0.002 s	
parallel_function>divide_harmonic	8	0.002 s	0.002 s	
...;@()MLFileUtils.isMdlFile(inFilename)	2	0.002 s	0.002 s	
checkfield>nonNegReal	3	0.002 s	0.002 s	
...viewerhelper>upconvertIntegralType	21	0.002 s	0.002 s	
FileManager>iErrorIfSessionNotRunning	1	0.002 s	0.000 s	
incrementParallelFunctionDepth	16	0.001 s	0.001 s	
opaque.char	2	0.001 s	0.001 s	
close>checkfigs	2	0.001 s	0.001 s	
close>getEmptyHandleList	3	0.001 s	0.001 s	
validatestring>checkInputs	1	0.001 s	0.001 s	
...FileUtils.isNativeMexFile(inFilename)	1	0.001 s	0.001 s	
interp1>sanitycheckmethod	7	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	
checkoptionsize	1	0.001 s	0.001 s	
...terruptibly>@()future.cancel(true)	8	0.001 s	0.001 s	
barrier>printLevel	1	0.001 s	0.001 s	
FileManager>iIsSessionRunning	1	0.001 s	0.001 s	
checkfield>stringsType	2	0.001 s	0.001 s	
...ons>SolverOptions.convertForSolver	1	0.001 s	0.001 s	
optim\private\acceptanceTest	5	0.001 s	0.001 s	

FileManager>@(x)fda.dependencyExists(x)	1	0.001 s	0.001 s	
classifyBoundsOnVars>equalFloat	1	0.001 s	0.001 s	
interp1>parseValuesV	7	0.001 s	0.001 s	
...al.incrementParallelFunctionDepth(-1)	8	0.001 s	0.001 s	
remoteparfor>remoteparfor.delete	8	0.001 s	0.001 s	
gcbf	2	0.001 s	0.001 s	
SolverOptions>SolverOptions.isSetByUser	4	0.001 s	0.001 s	
barrier>computeObjScalingFactor	1	0.001 s	0.001 s	
...s.mlwidgets.workspace.WhosInformation (Java method)	3	0.001 s	0.001 s	
filesep	2	0.001 s	0.001 s	
java.io.File (Java method)	11	0.001 s	0.001 s	
...@()MlxFileUtils.isMlxFile(inFilename)	1	0.001 s	0.001 s	
Fmincon>Fmincon.set.TolCon	1	0.001 s	0.000 s	
parallel_function>PCTInstalled	8	0.001 s	0.001 s	
Pool.Pool>Pool.hGetSession	12	0.001 s	0.001 s	
...gt:@()MLFileUtils.isPFile(inFilename)	1	0.001 s	0.001 s	
Fmincon>Fmincon.set.MaxIter	1	0.001 s	0.000 s	
blanks	2	0.001 s	0.001 s	
...cleanup>DisarmableOncleanup.disarm	16	0.001 s	0.001 s	
...ddenHandles',oldUDDShowHiddenHandles)	1	0.001 s	0.001 s	
Fmincon>Fmincon.get.FinDiffRelStep	2	0.001 s	0.001 s	
...cleanup>DisarmableOncleanup.delete	16	0.001 s	0.001 s	
FileManager>@(x)java.io.File(x)	1	0.001 s	0.001 s	
Pool.Pool>Pool.hGetFileManager	1	0.001 s	0.001 s	
Fmincon>Fmincon.set.TolX	1	0.001 s	0.000 s	
java.util.concurrent.FutureTask (Java method)	16	0.001 s	0.001 s	

[parallel_function>@(N,W)W](#)	8	0.000 s	0.000 s	
[parfor_endpoint_check](#)	12	0.000 s	0.000 s	
[optim\private\dampingProcedure](#)	5	0.000 s	0.000 s	
[barrier>displayUndefinedValueMsg](#)	5	0.000 s	0.000 s	
[symfun.symfun>symfun.delete](#)	3	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	
[...widgets.spreadsheet.data.ValueSummary](#) (Java method)	15	0.000 s	0.000 s	
[...p.pmode.FileDependenciesAssistantImpl](#) (Java method)	1	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.