

Usage of MRST Functions

addBC, **146**
addSource, **145**
addWell, **148**, 170
AGMGSolverAD, 445
applySuccessivePart, 555
assembleSystem, 435
assignPVT0, 384
assignRelPerm, 353
assignROCK, 352
assignSWOF, 352

BackslashSolverAD, 403, 442,
463
blackoilSectorModelExample,
451
blackoilTutorialOnePhase, 449
blackoilTutorialSPE1, 399
blackoilTutorialSPE9, 460

cartGrid, 15, **57**
checkProperty, 425
coarsenGeometry, 525
combineEquations, 436
combineMSwithRegularWells,
457
compressPartition, 498, 523
computeFandPhi, 485
computeGeometry, 15, **93**
computeLorenz, 487
computeMimeticIP, 187, 192
computeMultiPointTrans, 196
computeSweep, 487
computeTimeOfFlight, 153, 159
computeTimestep, 440
computeTOFandTracer, 480
computeTranMult, 324
computeTrans, **150**
computeWellPairs, 481, 498
convertDeckSchedule, 456
convertDeckScheduleToMRST, 402
convertHorizonsToGrid, 77
convertInputUnits, 49
convertTo, 17
covert2MSWell, 457
CPRSolverAD, 444, 463
cutGrdecl, 81

Driving forces, 428

eliminateVariable, 436
equationsBlackOil, 390, 431
evaluateRelPerm, 428
explicitTransport, 294
explosionView, 524
extrudedTriangleGrid, 96

faceAvg, 389
faceFlux2cellFlux, 171
faceUpstr, 390
FacilityModel, 433, 457
findConfinedBlocks, 543
fluxside, **147**, 161

gaussianField, 40
generateCoarseGrid, 527
getAdjointEquations, 425
getDrivingForces, 423
getEquations, 414, 423, 431
getLinearSystem, 435
getPlotAfterStep, 418
getProp, 424
getProps, 414
getUnitSystem, 49
getVariableField, 424, 427
getWellOutput, 468
glue2DGrid, 105
GMRES_ILUSolverAD, 443
gravity, 311, 450

- grdecl2Rock, 49
- griddedInterpolant, 353

- implicitTransport, 295
- incompMimetic, 187
- incompMPFA, 196
- incompTPFA, 16, **150**, 151
- initCoreyFluid, 291
- initDeckADIFluid, 351
- initResSol, **145**
- initSimpleADIFluid, 417, 449
- initSimpleFluid, 290
- initSimpleFluidPc, 291
- initSingleFluid, 16, **144**, 144
- initState, **145**
- initVariablesADI, 209, **624**
- initWellSolAD, 417, 429
- insertWellEquations, 432
- interactiveDiagnostics, 505
- interpReg, 353, 386
- isPointInsideGrid, 166

- LinearizedProblem, 434
- LinearSolverAD, 441
- logNormLayers, 41

- makeLayeredGrid, 86
- makeModel3, 96
- makeRock, 15, **40**
- moduleGUI, 611
- mrstDataDirectory, 609
- mrstDatasetGUI, 355, 605, **609**
- mrstExamples, 603, 604
- mrstExploreModules, 605
- mrstModule, **611**
- mrstPath, 69, 607, **611**
- MultisegmentWell, 433, 458
- multisegmentWellExample, 455

- NonLinearSolver, 403, 417, 436
- nozzleValve, 457

- outlineCoarseGrid, 520

- partitionCartGrid, 522
- partitionMETIS, 539
- partitionUI, 520
- pebi, 68, 102
- PhysicalModel, 422
- pickTimestep, 440
- plotCellData, 15, 46, 53, 99
- plotFaces, 17
- plotGrid, 15, 46
- plotToolbar, 53, 404, 419
- plotTracerBlend, 497

- plotWellAllocationPanel, 499
- plotWellSols, 306, 404
- pollock, 159
- processFacePartition, 528
- processGRDECL, 41, 45, 49, 81, 98
- pside, 16, **147**, 161
- psideh, 162

- rampupTimesteps, 452
- readEclipseDeck, 350
- readEclipseSummaryFmt, 406
- readEclipseSummaryUnFmt, 406, 467
- readGRDECL, 48, 80
- reduceToSingleVariableType, 436
- refineBlocks, 548
- refineGreedy, 548
- refineGreedy2, 548
- refineGreedy3, 548
- refineGreedy4, 548
- refineNearWell, 536
- refineRecursiveCart, 549
- refineUniform, 548
- relPermW0, 354
- relPermWOG, 354
- removeCells, 60
- removeConfinedBlocks, 544
- ReservoirModel, 426
- ResultHandler, 419

- sampleFromBox, 549
- segmentIndicator, 542
- selectModelFromDeck, 401, 456
- setProp, 424
- setUpOperatorsTPFA, 422
- simpleGrdecl, 74
- simpleSchedule, 418
- SimpleTimeStepSelector, 403, 440
- SimpleWell, 433, 458
- simulateScheduleAD, 404, 418
- solveAdjoint, 425
- solveLinearProblem, 441
- solveTimeStep, 418
- solveTimestep, 438
- startup, 601, 611
- startup_user, 69, 607, 612
- stepFunction, 424, 438

- tensorGrid, **58**
- tessellationGrid, 69
- tetrahedralGrid, 66
- ThreePhaseBlackOilModel, 401, 430, 451
- toleranceCNV, 439
- toleranceMB, 439

triangleGrid, 64
twister, 59
twophaseJacobian, 295
TwoPhaseOilWaterModel, 417, 431

updateForChangedControls,
429
updateState, 429, 431
updateStateFromIncrement,
429

upscalePerm, 573
upscaleTrans, 578, 580

validateModel, 425, 430
validateState, 425, 430
verticalWell, **149**, 170, 172

WaterModel, 449
wellBoreFriction, 457