



Regular API reference

The list of API functions below allows you to access many CoppeliaSim parameters. There are however too many parameters in CoppeliaSim to have a specific API function for each one of them. *Auxiliary* parameters can be accessed via a set of given functions that use [object parameter IDs](#). Refer also to the [global parameter IDs](#).

All units going to, or coming from the API are in meters, kilograms, seconds and radians or a combination of those (unless otherwise explicitly indicated).

File operations

```
sim.closeScene  
sim.saveScene  
sim.loadScene  
sim.saveModel  
sim.loadModel  
sim.importShape  
sim.importMesh  
sim.exportMesh  
sim.launchExecutable  
sim.createTexture
```

```
simCloseScene  
simSaveScene  
simLoadScene  
simSaveModel  
simLoadModel  
simDoesFileExist  
simImportShape  
simImportMesh  
simExportMesh  
simCreateTexture
```

General object handle retrieval

```
sim.getObject  
sim.getObjectFromUid  
sim.isHandle  
sim.getObjects  
sim.getObjectsInTree  
sim.getCollectionObjects  
sim.setReferencedHandles  
sim.getReferencedHandles  
sim.getReferencedHandlesTags
```

```
simGetObject  
simGetObjectFromUid  
simIsHandle  
simGetObjects  
simGetObjectsInTree  
simGetCollectionObjects  
simSetReferencedHandles  
simGetReferencedHandles
```

General functionality handling

```
sim.handleSimulationScripts  
sim.handleEmbeddedScripts
```

```
sim.handleAddOnScripts  
sim.handleSandboxScript
```

Collision detection

```
sim.checkCollision  
sim.checkCollisionEx
```

```
simCheckCollision  
simCheckCollisionEx
```

Minimum distance calculation

```
sim.checkDistance
```

```
simCheckDistance
```

Dynamics

```
sim.handleDynamics  
sim.setJointTargetPosition  
sim.setJointTargetVelocity  
sim.readForceSensor  
sim.getJointForce  
sim.getJointTargetForce  
sim.setJointTargetForce  
sim.addForce  
sim.addForceAndTorque  
sim.getVelocity  
sim.getLinkDummy  
sim.setLinkDummy  
sim.resetDynamicObject  
sim.addParticleObject  
sim.addParticleObjectItem  
sim.removeParticleObject  
sim.getContactInfo  
sim.getShapeMass  
sim.setShapeMass  
sim.getShapeInertia  
sim.setShapeInertia  
sim.computeMassAndInertia  
sim.createForceSensor  
sim.isDynamicallyEnabled
```

See also:
[physics engine parameter functions](#).

```
simHandleDynamics  
simSetJointTargetPosition  
simSetJointTargetVelocity  
simReadForceSensor  
simGetJointForce  
simGetJointTargetForce  
simSetJointTargetForce  
simAddForce  
simAddForceAndTorque  
simGetVelocity  
simGetLinkDummy  
simSetLinkDummy
```

```
simResetDynamicObject
simGetContactInfo
simGetShapeMass
simSetShapeMass
simGetShapeInertia
simSetShapeInertia
simComputeMassAndInertia
simCreateForceSensor
simConvexDecompose
simGetQHull
simGetDecimatedMesh
simIsDynamicallyEnabled
```

Dummies

```
sim.createDummy
sim.getLinkDummy
sim.setLinkDummy
```

See also:
object parameter functions and parameters related to dummies.

```
simCreateDummy
simGetLinkDummy
simSetLinkDummy
```

Scripts

```
sim.createScript
sim.getRandom
  sim.getScript
sim.isHandle
sim.initScript
sim.callScriptFunction
sim.getScriptFunctions
sim.executeScriptString
sim.getApiFunc
sim.getApiInfo
sim.handleSimulationScripts
sim.handleEmbeddedScripts
sim.handleAddOnScripts
sim.handleSandboxScript
sim.registerScriptFuncHook
sim.getStackTraceback
```

See also:
functions related to script parameters

```
simCreateScript
simGetScriptHandleEx
simIsHandle
simInitScript
simCallScriptFunctionEx
simExecuteScriptString
simGetApiFunc
simGetApiInfo
simResetScript
simRegisterScriptCallbackFunction
simRegisterScriptVariable
simRegisterScriptFuncHook
```

Joints

```
sim.setJointPosition
sim.getJointPosition
sim.setJointTargetPosition
sim.getJointTargetPosition
sim.setJointTargetVelocity
sim.getJointTargetVelocity
sim.getJointVelocity
sim.getObjectChildPose
sim.setObjectChildPose
sim.setJointInterval
sim.getJointInterval
sim.getJointType
sim.createJoint
sim.setJointMode
sim.getJointMode
sim.setJointDependency
sim.getJointDependency
sim.getJointForce
sim.getJointTargetForce
sim.setJointTargetForce
```

See also:

object parameter functions and parameters related to joints.
physics engine parameter functions.

```
simSetJointPosition
simGetJointPosition
simSetJointTargetPosition
simGetJointTargetPosition
simSetJointTargetVelocity
simGetJointTargetVelocity
simGetJointVelocity
simGetObjectChildPose
simSetObjectChildPose
simSetJointInterval
simGetJointInterval
simGetJointType
simCreateJoint
simSetJointMode
simGetJointMode
simSetJointDependency
simGetJointDependency
simGetJointForce
simGetJointTargetForce
simSetJointTargetForce
```

Shapes

```
sim.addForce
sim.addForceAndTorque
sim.getVelocity
sim.getShapeColor
sim.setShapeColor
sim.getShapeTextureId
sim.setShapeTexture
sim.createShape
sim.createPrimitiveShape
sim.createHeightfieldShape
sim.getShapeMesh
sim.getShapeViz
sim.getShapeGeomInfo
sim.getShapeMass
sim.setShapeMass
sim.getShapeInertia
sim.setShapeInertia
sim.computeMassAndInertia
sim.groupShapes
sim.ungroupShape
sim.importShape
sim.alignShapeBB
sim.relocateShapeFrame
sim.getShapeBB
sim.setShapeBB
sim.getExtensionString
sim.generateTextShape
```

See also:

object parameter functions and parameters related to shapes.
physics engine parameter functions.

```
simAddForce  
simAddForceAndTorque  
simGetVelocity  
simGetShapeColor  
simSetShapeColor  
simGetShapeTextureId  
simSetShapeTexture  
simCreateShape  
simCreatePrimitiveShape  
simCreateHeightfieldShape  
simGetShapeMesh  
simGetShapeViz  
simApplyTexture  
simGetShapeGeomInfo  
simGetShapeMass  
simSetShapeMass  
simGetShapeInertia  
simSetShapeInertia  
simComputeMassAndInertia  
simGroupShapes  
simUngroupShape  
simImportShape  
simConvexDecompose  
simGetQHull  
simGetDecimatedMesh  
simAlignShapeBB  
simRelocateShapeFrame  
simGetExtensionString
```

Proximity sensors

```
sim.handleProximitySensor  
sim.readProximitySensor  
sim.resetProximitySensor  
sim.checkProximitySensor  
sim.checkProximitySensorEx  
sim.checkProximitySensorEx2  
sim.createProximitySensor
```

See also:
object parameter functions and parameters related to proximity sensors.

```
simHandleProximitySensor  
simReadProximitySensor  
simResetProximitySensor  
simCheckProximitySensor  
simCheckProximitySensorEx  
simCheckProximitySensorEx2  
simCreateProximitySensor
```

Vision sensors

```
sim.handleVisionSensor  
sim.readVisionSensor  
sim.resetVisionSensor  
sim.checkVisionSensor  
sim.checkVisionSensorEx  
sim.getVisionSensorDepth  
sim.getVisionSensorImg  
sim.setVisionSensorImg  
sim.getVisionSensorRes  
sim.adjustView  
sim.createVisionSensor  
sim.getExtensionString
```

See also:
[object parameter functions](#) and [parameters related to vision sensors](#).

```
simHandleVisionSensor  
simReadVisionSensor  
simResetVisionSensor  
simCheckVisionSensor  
simCheckVisionSensorEx  
simGetVisionSensorDepth  
simGetVisionSensorImg  
simSetVisionSensorImg  
simGetVisionSensorRes  
simAdjustView  
simCreateVisionSensor  
simGetExtensionString
```

Force sensors

```
sim.readForceSensor  
sim.createForceSensor
```

See also:
[object parameter functions](#) and [parameters related to force sensors](#).

```
simReadForceSensor  
simCreateForceSensor
```

Graphs

```
sim.addGraphStream  
sim.setGraphStreamTransformation  
sim.setGraphStreamValue  
sim.addGraphCurve  
sim.destroyGraphCurve  
sim.duplicateGraphCurveToStatic  
sim.handleGraph  
sim.resetGraph
```

See also:
[object parameter functions](#) and [parameters related to graphs](#).

```
simAddGraphStream  
simSetGraphStreamTransformation  
simSetGraphStreamValue  
simAddGraphCurve  
simDestroyGraphCurve  
simDuplicateGraphCurveToStatic  
simHandleGraph  
simResetGraph
```

Lights

```
sim.getLightParameters  
sim.setLightParameters  
sim.getExtensionString
```

See also:
object parameter functions and parameters related to lights.

```
simGetLightParameters  
simSetLightParameters  
simGetExtensionString
```

Cameras

```
sim.cameraFitToView  
sim.adjustView  
sim.getExtensionString
```

See also:
object parameter functions and parameters related to cameras.

```
simCameraFitToView  
simAdjustView  
simGetExtensionString
```

OC trees

```
sim.createOctree  
sim.insertVoxelsIntoOctree  
sim.removeVoxelsFromOctree  
sim.insertObjectIntoOctree  
sim.subtractObjectFromOctree  
sim.getOctreeVoxels  
sim.checkOctreePointOccupancy
```

See also:
object parameter functions and parameters related to OC trees.

```
simCreateOctree  
simInsertVoxelsIntoOctree  
simRemoveVoxelsFromOctree  
simInsertObjectIntoOctree  
simSubtractObjectFromOctree  
simGetOctreeVoxels  
simCheckOctreePointOccupancy
```

Point clouds

```
sim.createPointCloud  
sim.getPointCloudOptions  
sim.setPointCloudOptions  
sim.insertPointsIntoPointCloud  
sim.removePointsFromPointCloud  
sim.subtractObjectFromPointCloud  
sim.intersectPointsWithPointCloud  
sim.insertObjectIntoPointCloud  
sim.getPointCloudPoints
```

See also:
object parameter functions and parameters related to point clouds.

```
simCreatePointCloud
simGetPointCloudOptions
simSetPointCloudOptions
simInsertPointsIntoPointCloud
simRemovePointsFromPointCloud
simSubtractObjectFromPointCloud
simIntersectPointsWithPointCloud
simInsertObjectIntoPointCloud
simGetPointCloudPoints
```

Paths

```
sim.createPath
sim.getConfigDistance
sim.getPathLengths
sim.getPathInterpolatedConfig
sim.resamplePath
sim.generateTimeOptimalTrajectory
sim.generateShapeFromPath
sim.getClosestPosOnPath
```

```
simGenerateShapeFromPath
simGetClosestPosOnPath
```

Scene objects

```
sim.getObject
sim.getObjectUid
sim.isHandle
sim.removeObjects
sim.removeModel
sim.getObjectAlias
sim.setObjectAlias
sim.getObjects
sim.getObjectsInTree
sim.getObjectParent
sim.setObjectParent
sim.getObjectHierarchyOrder
sim.setObjectHierarchyOrder
sim.getObjectChild
sim.getObjectMatrix
sim.setObjectMatrix
sim.getObjectPose
sim.setObjectPose
sim.getObjectPosition
sim.setObjectPosition
sim.getObjectOrientation
sim.setObjectOrientation
sim.getObjectQuaternion
sim.setObjectQuaternion
sim.getObjectType
sim.getObjectSel
sim.setObjectSel
sim.getObjectSizeFactor
sim.copyPasteObjects
sim.scaleObject
sim.scaleObjects
sim.getObjectProperty
sim.setObjectProperty
sim.getObjectSpecialProperty
sim.setObjectSpecialProperty
sim.getObjectVelocity
sim.readCustomTableData
sim.writeCustomTableData
sim.readCustomStringData
sim.writeCustomStringData
sim.readCustomBufferData
sim.writeCustomBufferData
sim.readCustomDataTags
sim.setReferencedHandles
sim.getReferencedHandles
sim.getReferencedHandlesTags
```



```
sim.isDynamicallyEnabled  
sim.getObjectColor  
sim.setObjectColor
```

See also:

object parameter functions and parameters related to scene objects.

```
simGetObject  
simGetObjectUid  
simIsHandle  
simRemoveObjects  
simRemoveModel  
simGetObjectAlias  
simSetObjectAlias  
simGetObjects  
simGetObjectsInTree  
simGetObjectParent  
simSetObjectParent  
simGetObjectHierarchyOrder  
simSetObjectHierarchyOrder  
simGetObjectChild  
simGetObjectMatrix  
simSetObjectMatrix  
simGetObjectPose  
simSetObjectPose  
simGetObjectPosition  
simSetObjectPosition  
simGetObjectOrientation  
simSetObjectOrientation  
simGetObjectQuaternion  
simSetObjectQuaternion  
simGetObjectType  
simGetObjectSel  
simSetObjectSel  
simGetObjectSizeFactor  
simCopyPasteObjects  
simScaleObject  
simScaleObjects  
simGetObjectProperty  
simSetObjectProperty  
simGetObjectSpecialProperty  
simSetObjectSpecialProperty  
simGetObjectVelocity  
simReadCustomDataBlock  
simReadCustomDataBlockTags  
simWriteCustomDataBlock  
simSetReferencedHandles  
simGetReferencedHandles  
simIsDynamicallyEnabled  
simGetObjectColor  
simSetObjectColor
```

Object size / scaling

```
sim.getObjectSizeFactor  
sim.scaleObject  
sim.scaleObjects  
sim.getShapeBB  
sim.setShapeBB
```

```
simGetObjectSizeFactor  
simScaleObject  
simScaleObjects
```

Collections

```
sim.createCollection  
sim.destroyCollection
```

```
sim.addItemToCollection  
sim.getCollectionObjects
```

```
simCreateCollectionEx  
simDestroyCollection  
simAddItemToCollection  
simGetCollectionObjects
```

Serial port

```
sim.serialCheck  
sim.serialClose  
sim.serialOpen  
sim.serialRead  
sim.serialSend
```

```
simSerialCheck  
simSerialClose  
simSerialOpen  
simSerialRead  
simSerialSend
```

Rendering

```
sim.addDrawingObject  
sim.addDrawingObjectItem  
sim.removeDrawingObject  
sim.getShapeColor  
sim.setShapeColor  
sim.getObjectColor  
sim.setObjectColor  
sim.changeEntityColor  
sim.restoreEntityColor  
sim.getGenesisEvents
```

```
simAddDrawingObject  
simAddDrawingObjectItem  
simRemoveDrawingObject  
simGetShapeColor  
simSetShapeColor  
simGetObjectColor  
simSetObjectColor
```

Particle objects

```
sim.addParticleObject  
sim.addParticleObjectItem  
sim.removeParticleObject
```

Models

```
sim.getModelProperty  
sim.setModelProperty  
sim.saveModel  
sim.loadModel
```

```
simGetModelProperty  
simSetModelProperty  
simSaveModel  
simLoadModel
```

Object selection

```
sim.getObjectSel  
sim.setObjectSel
```

```
simGetObjectSel  
simSetObjectSel
```

Object creation

```
sim.createDummy  
sim.createScript  
sim.createForceSensor  
sim.createHeightfieldShape  
sim.createJoint  
sim.createShape  
sim.createProximitySensor  
sim.createPrimitiveShape  
sim.createVisionSensor  
sim.createOctree  
sim.createPointCloud  
sim.createTexture  
sim.generateTextShape  
sim.generateShapeFromPath
```

```
simCreateDummy  
simCreateScript  
simCreateForceSensor  
simCreateHeightfieldShape  
simCreateJoint  
simCreateShape  
simCreateProximitySensor  
simCreatePrimitiveShape  
simCreateVisionSensor  
simCreateOctree  
simCreatePointCloud  
simCreateTexture  
simGenerateShapeFromPath
```

Simulation

```
sim.startSimulation  
sim.pauseSimulation  
sim.stopSimulation  
sim.getSimulationState  
sim.getSimulationTime
```

```
sim.getSimulationTimeStep  
sim.getRealTimeSimulation
```

```
simStartSimulation  
simPauseSimulation  
simStopSimulation  
simGetSimulationState  
simGetSimulationTime  
simGetSimulationTimeStep  
simGetRealTimeSimulation
```

Threads

```
sim.setStepping  
sim.step  
sim.setAutoYieldDelay  
sim.acquireLock  
sim.releaseLock  
sim.getSimulationStopping  
sim.handleExtCalls
```

Custom scripts

```
sim.registerScriptFuncHook
```

```
simRegisterScriptCallbackFunction  
simRegisterScriptVariable  
simRegisterScriptFuncHook
```

Transformations

```
sim.buildMatrix  
sim.buildPose  
sim.getEulerAnglesFromMatrix  
sim.matrixToPose  
sim.poseToMatrix  
sim.multiplyMatrices  
sim.multiplyPoses  
sim.interpolateMatrices  
sim.interpolatePoses  
sim.getMatrixInverse  
sim.getPoseInverse  
sim.getObjectMatrix  
sim.setObjectMatrix  
sim.getObjectPose  
sim.setObjectPose  
sim.getObjectPosition  
sim.setObjectPosition  
sim.getObjectOrientation  
sim.setObjectOrientation  
sim.getObjectQuaternion  
sim.setObjectQuaternion  
sim.getObjectChildPose  
sim.setObjectChildPose  
sim.multiplyVector  
sim.getRotationAxis  
sim.rotateAroundAxis  
sim.getObjectVelocity  
sim.alignShapeBB  
sim.relocateShapeFrame  
sim.alphaBetaGammaToYawPitchRoll  
sim.yawPitchRollToAlphaBetaGamma
```

See also:
[packing/unpacking functions](#)

```
simBuildMatrix
simBuildPose
simGetEulerAnglesFromMatrix
simMatrixToPose
simPoseToMatrix
simMultiplyMatrices
simMultiplyPoses
simInterpolateMatrices
simInterpolatePoses
simInvertMatrix
simInvertPose
simGetObjectMatrix
simSetObjectMatrix
simGetObjectPose
simSetObjectPose
simGetObjectPosition
simSetObjectPosition
simGetObjectOrientation
simSetObjectOrientation
simGetObjectQuaternion
simSetObjectQuaternion
simGetObjectChildPose
simSetObjectChildPose
simTransformVector
simGetRotationAxis
simRotateAroundAxis
simGetObjectVelocity
simAlignShapeBB
simRelocateShapeFrame
```

Messaging

```
loadPlugin
unloadPlugin
sim.addLog
sim.getSimulatorMessage
sim.serialCheck
sim.serialClose
sim.serialOpen
sim.serialRead
sim.serialSend
sim.setInt32Signal
sim.getInt32Signal
sim.clearInt32Signal
sim.setFloatSignal
sim.getFloatSignal
sim.clearFloatSignal
sim.setStringSignal
sim.getStringSignal
sim.clearStringSignal
sim.setBufferSignal
sim.getBufferSignal
sim.clearBufferSignal
sim.getSignalName
sim.waitForSignal
sim.auxiliaryConsoleClose
sim.auxiliaryConsoleOpen
sim.auxiliaryConsolePrint
sim.callScriptFunction
sim.getScriptFunctions
sim.executeScriptString
sim.getObjectUid
sim.getGenesisEvents
sim.broadcastMsg
sim.pushUserEvent
sim.systemSemaphore
```

```
simAddLog
simSetLastError
simGetSimulatorMessage
simSerialCheck
```

```
simSerialClose
simSerialOpen
simSerialRead
simSerialSend
simSetInt32Signal
simGetInt32Signal
simClearInt32Signal
simSetFloatSignal
simGetFloatSignal
simClearFloatSignal
simSetStringSignal
simGetStringSignal
simClearStringSignal
simGetSignalName
simAuxiliaryConsoleClose
simAuxiliaryConsoleOpen
simAuxiliaryConsolePrint
simCallScriptFunctionEx
simExecuteScriptString
simGetObjectUid
```

Signals

```
sim.setInt32Signal
sim.getInt32Signal
sim.clearInt32Signal
sim.setFloatSignal
sim.getFloatSignal
sim.clearFloatSignal
sim.setStringSignal
sim.getStringSignal
sim.clearStringSignal
sim.setBufferSignal
sim.getBufferSignal
sim.clearBufferSignal
sim.getSignalName
sim.waitForSignal
```

See also:
[data packing/unpacking](#).

```
simSetInt32Signal
simGetInt32Signal
simClearInt32Signal
simSetFloatSignal
simGetFloatSignal
simClearFloatSignal
simSetStringSignal
simGetStringSignal
simClearStringSignal
simGetSignalName
```

Custom data

```
sim.readCustomTableData
sim.writeCustomTableData
sim.readCustomStringData
sim.writeCustomStringData
sim.readCustomBufferData
sim.writeCustomBufferData
sim.readCustomDataTags
```

See also:
[data packing/unpacking](#).

```
simReadCustomDataBlock
simReadCustomDataBlockTags
```

```
simWriteCustomDataBlock
```

Textures

```
sim.getTextureId  
sim.getShapeTextureId  
sim.readTexture  
sim.saveImage  
sim.loadImage  
sim.getScaledImage  
sim.transformImage  
sim.writeTexture  
sim.createTexture  
sim.setShapeTexture
```

```
simApplyTexture  
simGetTextureId  
simGetShapeTextureId  
simReadTexture  
simSaveImage  
simLoadImage  
simGetScaledImage  
simTransformImage  
simWriteTexture  
simCreateTexture  
simSetShapeTexture
```

Blocking functions

```
sim.wait  
sim.waitForSignal  
sim.moveToConfig  
sim.moveToPose  
sim.serialRead  
sim.systemSemaphore
```

Auxiliary consoles

```
sim.auxiliaryConsoleClose  
sim.auxiliaryConsoleOpen  
sim.auxiliaryConsolePrint  
sim.auxiliaryConsoleShow
```

See also:
Custom user interfaces.

```
simAuxiliaryConsoleClose  
simAuxiliaryConsoleOpen  
simAuxiliaryConsolePrint  
simAuxiliaryConsoleShow
```

Text/code editors

```
sim.textEditorClose  
sim.textEditorGetInfo  
sim.textEditorOpen
```

```
sim.textEditorShow
```

See also:
[Custom user interfaces.](#)

Import/export

```
sim.importShape  
sim.importMesh  
sim.exportMesh  
sim.createTexture  
sim.loadImage  
sim.saveImage  
sim.generateTextShape
```

See also:
[Assimp plugin API reference.](#)

```
simImportShape  
simImportMesh  
simExportMesh  
simCreateTexture  
simLoadImage  
simSaveImage
```

Pages and views

```
sim.floatingViewAdd  
sim.floatingViewRemove  
sim.adjustView  
sim.cameraFitToView
```

```
simFloatingViewAdd  
simFloatingViewRemove  
simAdjustView  
simCameraFitToView
```

Motion functionality

```
sim.moveToConfig  
sim.moveToConfig_init  
sim.moveToConfig_step  
sim.moveToConfig_cleanup  
sim.moveToPose  
sim.moveToPose_init  
sim.moveToPose_step  
sim.moveToPose_cleanup  
sim.ruckigPos  
sim.ruckigVel  
sim.ruckigStep  
sim.ruckigRemove
```

```
simRuckigPos  
simRuckigVel  
simRuckigStep  
simRuckigRemove
```


Packing / unpacking

```
sim.packTable
sim.unpackTable
sim.packUInt8Table
sim.unpackUInt8Table
sim.packUInt16Table
sim.unpackUInt16Table
sim.packUInt32Table
sim.unpackUInt32Table
sim.packInt32Table
sim.unpackInt32Table
sim.packFloatTable
sim.unpackFloatTable
sim.packDoubleTable
sim.unpackDoubleTable
sim.copyTable
sim.transformBuffer
```

```
simPackTable
simUnpackTable
```

Stacks

```
sim.packTable
sim.unpackTable
```

```
simCreateStack
simReleaseStack
simCopyStack
simPushNullOntoStack
simPushBoolOntoStack
simPushInt32OntoStack
simPushInt64OntoStack
simPushFloatOntoStack
simPushDoubleOntoStack
simPushTextOntoStack
simPushStringOntoStack
simPushBufferOntoStack
simPushUInt8TableOntoStack
simPushInt32TableOntoStack
simPushInt64TableOntoStack
simPushFloatTableOntoStack
simPushDoubleTableOntoStack
simPushTableOntoStack
simInsertDataIntoStackTable
simGetStackSize
simPopStackItem
simGetStackItemType
simGetStackStringType
simMoveStackItemToTop
simGetStackBoolValue
simGetStackInt32Value
simGetStackInt64Value
simGetStackFloatValue
simGetStackDoubleValue
simGetStackStringValue
simGetStackTableInfo
simGetStackUInt8Table
simGetStackInt32Table
simGetStackInt64Table
simGetStackFloatTable
simGetStackDoubleTable
simUnfoldStackTable
simDebugStack
simPackTable
simUnpackTable
```

Object parameters

```
sim.getObjectInt32Param  
sim.setObjectInt32Param  
sim.getObjectFloatParam  
sim.setObjectFloatParam  
sim.getObjectStringParam  
sim.setObjectStringParam  
sim.getObjectFloatArrayParam  
sim.setObjectFloatArrayParam
```

```
simGetObjectInt32Param  
simSetObjectInt32Param  
simGetObjectFloatParam  
simSetObjectFloatParam  
simGetObjectStringParam  
simSetObjectStringParam  
simGetObjectFloatArrayParam  
simSetObjectFloatArrayParam
```

Simulator parameters

```
sim.setArrayParam  
sim.getArrayParam  
sim.setBoolParam  
sim.getBoolParam  
sim.setInt32Param  
sim.getInt32Param  
sim.setFloatParam  
sim.getFloatParam  
sim.setStringParam  
sim.getStringParam  
sim.setNamedStringParam  
sim.getNamedStringParam
```

```
simSetArrayParam  
simGetArrayParam  
simSetBoolParam  
simGetBoolParam  
simSetInt32Param  
simGetInt32Param  
simSetFloatParam  
simGetFloatParam  
simSetStringParam  
simGetStringParam  
simSetNamedStringParam  
simGetNamedStringParam  
simGetUInt64Parameter
```

Simulator named parameters

```
sim.setNamedStringParam  
sim.getNamedStringParam  
sim.getNamedBoolParam  
sim.getNamedFloatParam  
sim.getNamedInt32Param
```

```
simSetNamedStringParam  
simGetNamedStringParam
```

Physics engine parameters

```
sim.getEngineFloatParam  
sim.getEngineInt32Param  
sim.getEngineBoolParam  
sim.setEngineFloatParam  
sim.setEngineInt32Param  
sim.setEngineBoolParam
```

```
simGetEngineFloatParam  
simGetEngineInt32Param  
simGetEngineBoolParam  
simSetEngineFloatParam  
simSetEngineInt32Param  
simSetEngineBoolParam
```

Other commands

```
sim.addLog  
sim.announceSceneContentChange  
sim.getNavigationMode  
sim.setNavigationMode  
sim.getPage  
sim.setPage  
sim.getLastInfo  
sim.getPluginName  
sim.getPluginInfo  
sim.setPluginInfo  
sim.getNavigationMode  
sim.getSystemTime  
sim.refreshDialogs  
sim.setAutoYieldDelay  
sim.step  
sim.getExplicitHandling  
sim.setExplicitHandling  
sim.launchExecutable  
sim.quitSimulator  
sim.getExtensionString  
sim.textEditorClose  
sim.textEditorGetInfo  
sim.textEditorOpen  
sim.textEditorShow  
sim.getUserVariables  
sim.moduleEntry  
sim.getGenesisEvents  
sim.pushUserEvent  
sim.systemSemaphore
```

```
simAddLog  
simAnnounceSceneContentChange  
simGetNavigationMode  
simSetNavigationMode  
simGetPage  
simSetPage  
simGetLastInfo  
simGetLastError  
simSetLastError  
simGetPluginName  
simGetPluginInfo  
simSetPluginInfo  
simGetNavigationMode  
simRefreshDialogs  
simGetExplicitHandling  
simSetExplicitHandling  
simQuitSimulator  
simGetExtensionString  
simOpenTextEditor  
simCreateBuffer  
simReleaseBuffer  
simModuleEntry
```

