

# KBSW180106 SLAMWARE SDK API (Android)

AndroidSLAMWARE SDKAPI

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- com.slamtec.slamware.exceptions

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- ConnectionFailException
- ConnectionLostException
- ConnectionTimeoutException
- InvalidArgumentException
- OperationFailException
- OutOfResourceException
- ParseInvalidException
- PathFindFailException
- RequestFailException
- RequestTimeoutException
- UnauthorizedRequestException
- UnsupportedCommandException
- com.slamtec.slamware.message
  - DepthCameraFrame
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  - Action
  - CompositeMapHelper

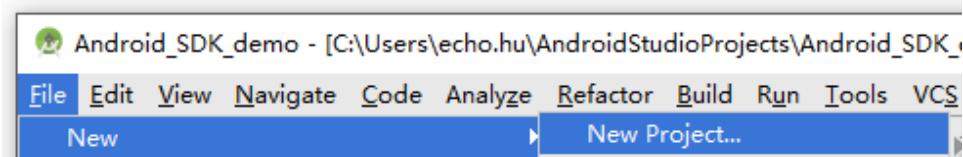
Android Slamware SDK

- Android 4.3Android 4.3

## SDK

- Slamware Android SDKslamtec\_agent.jararmeabiSDKAndroid

1. Android StudioFile>New>New ProjectAndroid Studio Start a new Android Studio Project



2.

Create New Project

## New Project

Android Studio

### Configure your new project

Application name:

Company Domain:

Package name:  [Edit](#)

Project location:  ...

[Previous](#) [Next](#) [Cancel](#) [Finish](#)

3. **Next**

Create New Project

## Target Android Devices

### Select the form factors your app will run on

Different platforms may require separate SDKs

☒ Phone and Tablet

Minimum SDK:  [v](#)

Lower API levels target more devices, but have fewer features available.  
By targeting API 18 and later, your app will run on approximately **76.9%** of the devices that are active on the Google Play Store.  
[Help me choose](#)

☐ Wear

Minimum SDK:  [v](#)

☐ TV

Minimum SDK:  [v](#)

☐ Android Auto

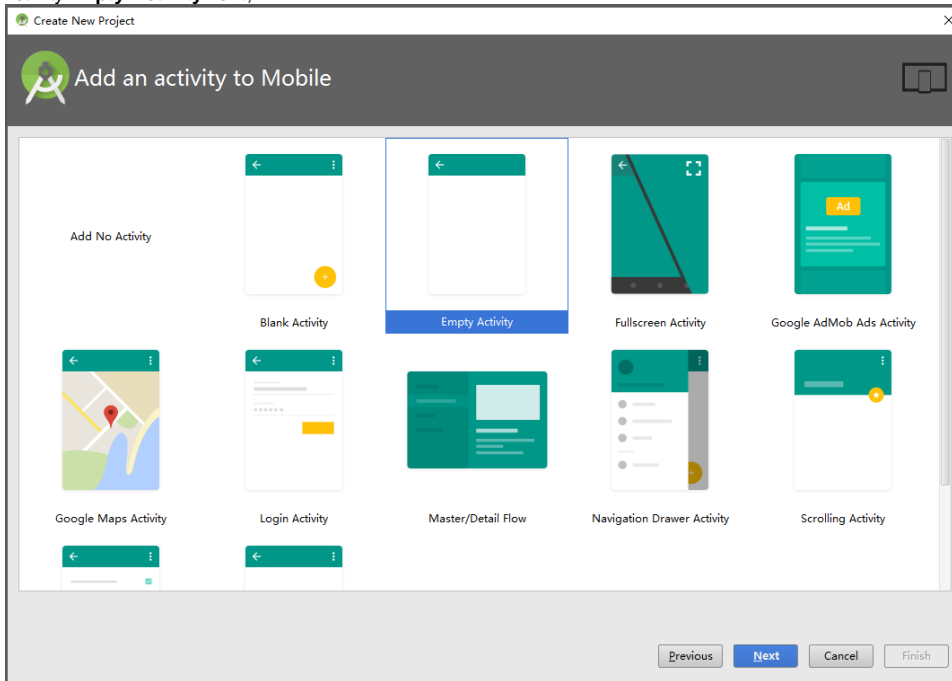
☐ Glass

Minimum SDK:  [v](#)

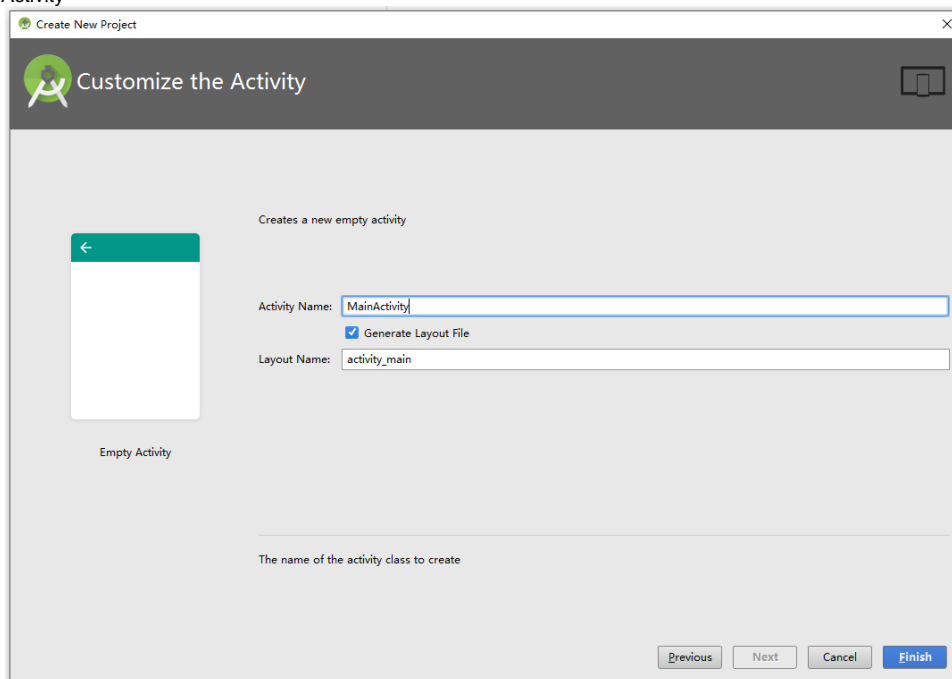
\* Looking for SDKs available for download...

[Previous](#) [Next](#) [Cancel](#) [Finish](#)

4. ActivityEmpty ActivityNext;

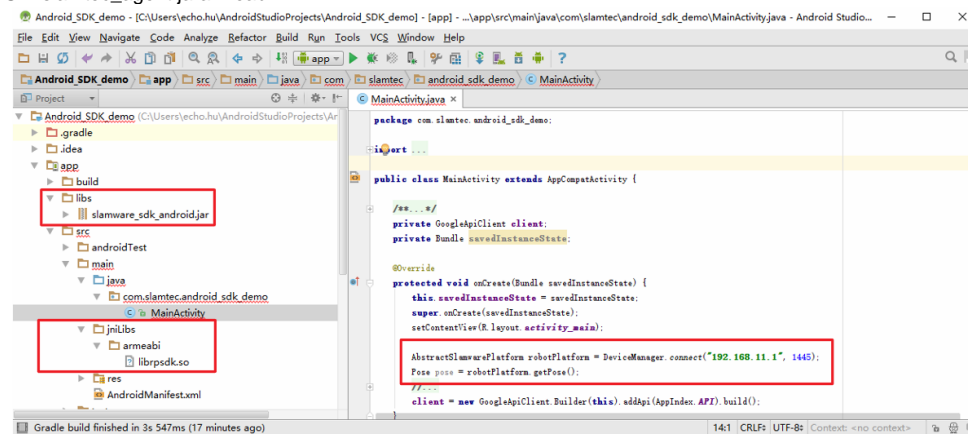


5. Activity



Hello World

1. SDKslamtec\_agent.jararmeabi



2. SDP

1. ARMx86

2.

com.slamtec.slamware	slamware
com.slamtec.slamware.action	
com.slamtec.slamware.discovery	
com.slamtec.slamware.FirmwareUpdate	
com.slamtec.slamware.geometry	geometry
com.slamtec.slamware.robot	robot
com.slamtec.slamware.exceptions	
com.slamtec.slamware.message	message
com.slamtec.slamware.sdp	SDP

AbstractDiscover	, abstract discover interface
AbstractDiscover.BleConfigureListener	, BleConfigureListener
AbstractDiscover.DiscoverStatus	DiscoverStatus
AbstractDiscover.DiscoveryListener	DiscoveryListener

AbstractSlamwarePlatform	SLAMWARE
ActionStatus	
BleDevice	BleDevice
CompositeMapHelper	
Device	
DeviceManager	
DepthCameraFrame	
DiscoveryMode	
FirmwareUpdateInfo	
FirmwareUpdateProgress	
HealthInfo	
HealthInfo.BaseError	
IAction	
IMoveAction	
ImpactSensorInfo	
ImpactSensorType	
ImpactSensorValue	
ISweepMoveAction	
LaserPoint	
LaserScan	
Line	
Location	3D
Map(Robot)	
Map(SDP)	SDP
MapKind	
MapLayer	
MapType	
MdnsDevice	MdnsDevice
MoveDirection	

NetworkMode	
Path	
PointF	2D
PointMap	
Pose	
PoseMap	PoseMap
RecoverLocalizationMovement	
RecoverLocalizationOptions	
RestartMode	
Rotation	
SensorType	
Size	Size
SlamwareCorePlatform	Abstract Slamware Platform
SlamwareSdpPlatform	SDP
SlamcoreShutdownParam	
SleepMode	
SystemParameters	

com.slamtec.slamware

AbstractSlamwarePlatform

Abstract Slamware Platform SLAMWARE

SlamwareCorePlatform

AbstractSlamwarePlatform()  
AbstractSlamwarePlatformDeviceManagerAbstractSlamwarePlatform

addWall(Line wall)  
SLAMWARE

wall	

```
addWalls(java.util.List<Line> walls)
```

SLAMWARE

walls	

```
clearMap()
```

```
clearWallById(int id)
```

```
(id idAbstractSlamwarePlatform.getLines(ArtifactUsage var1)line id)
```

id	id

```
clearWalls()
```

Slamware

```
configureNetwork(int mode, java.util.HashMap<java.lang.String,java.lang.String> options)
```

Slamware Coreboolean

mode	
options	

AP	Slamware CoreWiFiWiFiWiFiDHCP192.168.11.1Slamware Core
Station	Slamware CoreWiFiWiFiSlamware CoreHigh Speed BusIP
Disable	Slamware CoreIPDNSAPI

- Slamware CoreAP

```
Platform.configureNetwork(NetworkMode.NetworkModeAp, new HashMap<String, String>());
```

- Slamware CoreSlamtecAP

```
HashMap<String, String> options = newHashMap<String, String>(); options.put("ssid", "Slamtec"); options.put("password", "Password"); platform.configureNetwork(NetworkMode.NetworkModeStation,options);
```

- Slamware CoreIP192.168.12.13192.168.12.1DNS114.114.114.114

```
HashMap<String, String> options = newHashMap<String, String>(); options.put("ip", "192.168.12.13"); options.put("mask": "255.255.255.0"); options.put("gateway": "192.168.12.1"); options.put("dns": "114.114.114.114"); platform.configureNetwork(NetworkMode.NetworkModeDisabled, options);
```



disconnect()

getAvailableMaps()

SLAMWARE

getBatteryIsCharging()

getBatteryPercentage()

0~100

getCurrentAction()

getDCIsConnected()

getDeviceId()

UUIDString

getFirmwareUpdateInfo()

FirmwareUpdateInfo

getFirmwareUpdateProgress()

FirmwareUpdateProgress

getHardwareVersion()

string

getKnownArea(MapType type)

type –

getKnownArea(MapType type, MapKind kind)

type	
kind	

getLaserScan()

LASERLASER

getLocalizationQuality()

getLocation()

getManufacturerId()

idint

getManuFacturerName()

string

getMap(MapType type, MapKind kind, android.graphics.RectF area)

SLAMWARE

type	
kind	
area	

getMapLocalization()

SLAMWARESLAMWARE

getMapUpdate()

SLAMWARESLAMWARE

getModelId()

idint

getModelName()

string

getNetworkStatus()

string

getPose()

getRobotHealth()

getSDKVersion()

SLAMWARE SDKSLAMWARESDK

getSlamwareVersion()

SLAMWARESLAMWARE

getSoftwareVersion()

getSystemParameter(java.lang.String param)

param	

getWalls()

goHome()

moveBy(MoveDirection direction)

MoveAction.cancel()moveBy

direction	

```
moveTo(java.util.List<Location> locations)
```

locations	

```
moveTo(java.util.List<Location> locations, boolean appending)
```

locations	
appending	SLAMWARE

```
moveTo(java.util.List<Location> locations, boolean appending, boolean isMilestone)
```

locations	
appending	SLAMWARE
isMilestone	SLAMWAREtruefalse

```
moveTo(Location location)
```

location	

```
moveTo(Location location, boolean appending)
```

location	
appending	SLAMWARE

```
moveTo(Location location, boolean appending, boolean isMilestone)
```

location	
appending	SLAMWARE
isMilestone	SLAMWAREtruefalse

```
restartModule()
```

SLAMWARE

```
restartModule(RestartMode mode)
```

SLAMWARE

mode	SLAMWARE

```
rotate(Rotation rotation)
```

rotation	

```
rotateTo(Rotation orientation)
```

orientation	

```
searchPath(Location location)
```

location	

```
setMap(Map map)
```

SLAMWAREsetPosemoveto

map	

```
setMap(Map map, MapType type)
```

SLAMWAREsetPose

map	
type	

```
setMap(Map map, MapType type, MapKind kind)
```

SLAMWAREsetPose

map	
type	
kind	

setMapLocalization(boolean v)

v	SLAMWARE

setMapUpdate(boolean v)

v	SLAMWARE

setPose(Pose pose)

pose	

setSystemParameter(java.lang.String param, java.lang.String value)

param	
value	

startFirmwareUpdate()

boolean

startSweep()

SLAMWARE Core

sweepSpot(Location location)

SLAMWARE Core

**ArtifactUsage**

ArtifactUsageVirutalWall

ArtifactUsageVirtualTrack

```
List<Line> getLines(ArtifactUsage usage)
```

line

usage	

```
boolean addLine(ArtifactUsage usage, Line line)
```

```
boolean addLines(ArtifactUsage usage, List<Line> lines)
```

```
idArrayList<Line> lines = AbstractSlamwarePlatform.getLines(ArtifactUsage usage);
```

```
boolean removeLineById(ArtifactUsage usage, int id)
```

```
boolean clearLines(ArtifactUsage usage)
```

```
PowerStatus getPowerStatus()
```

```
void wakeUp()
```

```
IMoveAction recoverLocalization(RectF area)
```

area20\*20

```
PointPDF getAuxLocation()
```

getAuxLocation()recoverLocalization

```
auto locationPdf = platform. getAuxLocation();  
Location location = locationPdf.location;  
float distant = locationPdf.circular_error_probability;  
area((location.x() - distant), (location.y() - distant), 2*distant, 2*distant);RectangleF  
auto act = platform. recoverLocalization(area);  
act.waitUntilDone();
```

```
CompositeMap getCompositeMap()
```

```
void setCompositeMap(CompositeMap map, Pose pose)
```

```
Pose getHomePose()
```

(0,0)

```
List<ImpactSensorInfo> getSensors()
```

list

```
HashMap<Integer, ImpactSensorValue> getSensorValues()
```

hashMap

ImpactSensorValue getSensorValue(Integer var1)

key

IMoveAction moveTo(Location location, MoveOption option, float yaw)

location moveOption

appending	boolean	SLAMWARE
milestone	boolean	SLAMWAREtruefalse
noSmooth	boolean	
keyPoints	boolean	
precise	boolean	
withYaw	boolean	
yaw	float	
returnUnreachableDirectly	boolean	true
trackWithOA	boolean	trackWithOA true,.(,trackWithOA true,)
speedRatio	Double	,01,(moveBy

IMoveAction moveTo(java.util.List locations, MoveOption option, float yaw)

publishDepthCamFrame(int sensorId,DepthCameraFrame depthCameraFrame)

sensorId sensorId, depthCameraFrame

com. slamtec slamware action

IAction

IMoveAction, ISweepMoveAction

cancel()

getActionName()

string

getProgress()

0~1double

getStatus()

waitUntilDone()

boolean isEmpty()

```
int getActionId()  
  
id  
  
String getReason()  
  
actionnull0"failed"action, "aborted"action(cancelactionaction)  
moveToaction"unreachable"()
```

## IMoveAction IAction

```
IAction  
  
IAction  
  
ISweepMoveAction
```

```
getRemainingMilestones()
```

```
getRemainingPath()
```

```
com.slamtec.slamware.action.IAction  
  
cancel, getActionName, getProgress, getStatus, waitUntilDone
```

## ISweepMoveAction

```
pause()  
  
  
  
resume()
```

## ISweepMoveAction IAction

```
IMoveAction  
  
IAction, IMoveAction
```

```
com.slamtec.slamware.action.IMoveAction  
  
getRemainingMilestones, getRemainingPath  
  
com.slamtec.slamware.action.IAction  
  
cancel, getActionName, getProgress, getStatus, waitUntilDone
```

## path

```
Path()  
  
Path  
  
Path(Path path)
```



pathPath

Path(java.util.Vector<Location> points)

pointsPath

getPoints()

setPoints(java.util.Vector<Location> points)

## ActionStatus

public enum ActionStatus, java.lang.Enum<ActionStatus>,

WAITING\_FOR\_START

RUNNING

FINISHED

PAUSED

STOPPED

ERROR

## MoveDirection

public enum MoveDirection, java.lang.Enum<MoveDirection>,

FORWARD

BACKWARD

TURN\_RIGHT

TURN\_LEFT

## com.slamtec.slamware.discovery

### AbstractDiscover.BleConfigureListener

AbstractDiscover

onConfigureSuccess()

onConfigureFailure(java.lang.String error)

## String error

BLE\_CONFIG\_ERROR\_BLE\_DISCONNECTED

BLE\_CONFIG\_ERROR\_WRITTING\_FAIL

BLE\_CONFIG\_ERROR\_SSID\_REQUIRED

SSID

BLE\_CONFIG\_ERROR\_UNABLE\_CONNECT\_WIFI

WiFi

BLE\_CONFIG\_ERROR\_INVALID\_PWD

## AbstractDiscover

public abstract class AbstractDiscover, abstract discover

DeviceManager

AbstractDiscover.BleConfigureListener

AbstractDiscover.DiscoverStatus

AbstractDiscover.DiscoveryListener

AbstractDiscover()

AbstractDiscover

getMode()

setListener(AbstractDiscover.DiscoveryListener listener)

listener

getStatus(DiscoveryMode mode)

start(DiscoveryMode mode)

stop(DiscoveryMode mode)

## AbstractDiscover.DiscoveryListener

AbstractDiscover

DiscoveryListener()

DiscoveryListener

onStartDiscovery(AbstractDiscover discover)

Discovery

onStopDiscovery(AbstractDiscover discover)

Discoverey

onDiscoveryError(AbstractDiscover discover, java.lang.String error)

Discovery

onDeviceFound(AbstractDiscover discover, Device device)

## BleDevice

Device

BleDevice(BluetoothDevice device)

BleDevice

getDevice()

device

canBeFoundWith(DiscoveryMode mode)

discovery

Device canBeFoundWith

## Device

public abstract class Device,

BleDevice, MdnsDevice

Device()

Device

getManufactureId()

Manufacture id

setManufactureId(int manufactureId)

manufacture id

getModelId()

mode id

```
setModelId(int modelId)

mode id

getManufactureName()

manufacture name

setManufactureName(java.lang.String manufactureName)

manufacture name

getModelName()

mode name

setModelName(java.lang.String modelName)

mode name

getHardwareVersion()

hard ware version

setHardwareVersion(int hardwareVersion)

hardware version

getSoftwareVersion()

software version

setSoftwareVersion(int softwareVersion)

software version

getSerialNumber()

serial number

setSerialNumber(java.lang.String serialNumber)

serial number

canBeFoundWith(DiscoveryMode mode)

discovery

getDeviceId()

device id

setDeviceId(java.util.UUID deviceId)

device id

getDeviceName()

device name

setDeviceName(java.lang.String deviceName)

device name
```

## DeviceManager

AbstractDiscover

The manager to manage devices

Nested classes/interfaces inherited from class

com.slamtec.slamware.discovery.AbstractDiscover:

AbstractDiscover.BleConfigureListener,

AbstractDiscover.DiscoverStatus,

AbstractDiscover.DiscoveryListener

DeviceManager(Context context)

DeivceManager

connect(java.lang.String host, int port)

SLAMWARE CoreAndroidSLAMWARE Core

host	192.168.11.1
port	

connect(Device device)

SLAMWARE

device	

pair(Device device,java.lang.String wifiSSID, java.lang.String wifiPassword, AbstractDiscover.  
BleConfigureListener listener)

SSIDSLAMWARE

device	
wifiSSID	WiFiSSID
sifiPassword	WiFi
listener	

setListener(AbstractDiscover.DiscoveryListener listener)

AbstractDiscover setListener

getStatus(DiscoveryMode mode)

AbstractDiscovergetStatus

start(DiscoveryMode mode)

AbstractDiscoverstart

stop(DiscoveryMode mode)

AbstractDiscoverstop

getMode()

AbstractDiscovergetMode

## MdnsDevice

Device

MdnsDevice(java.lang.String addr, int port)

MdnsDevice

```
getAddr()
```

```
getPort()
```

```
canBeFoundWith(DiscoveryMode mode)
```

```
DevicecanBeFoundWith
```

## AbstractDiscover.DiscoverStatus

```
AbstractDiscover
```

```
STOPPED
```

```
WORKING
```

```
ERROR
```

## DiscoveryMode

```
BLE
```

```
BLE
```

```
MDNS
```

```
mdns
```

## com.slamtec.slamware.FirmwareUpdate

### FirmwareUpdateInfo

```
public class FirmwareUpdateInfo
```

```
FirmwareUpdateInfo(java.lang.String current, java.lang.String latest, java.lang.String releaseDate, java.lang.String brief)
```

```
FirmwareUpdateInfocurrent/latest/releasedDate/brief
```

```
getBrief()
```

```
, string
```

```
getCurrent()
```

```
, string
```

```
getLatest()
```

, string

getReleaseDate()

, string

## FirmwareUpdateProgress

public class FirmwareUpdateProgress

FirmwareUpdateProgress(int currentStep, int totalStep, int currentStepProgress, java.lang.String currentStepName)

FirmwareUpdateProgresscurrentStep/totalStep/currentStepProgress/currentStepName

getCurrentStep()

int

getCurrentStepName()

string

getCurrentStepProgress()

int

getTotalStep()

int

## com.slamtec.slamware.geometry

### Line

public class Line,

Line(int segmentId, PointF startPoint, PointF endPoint)

Linesegment idstart pointend point

Line(int segmentId, float startX, float startY, float endX, float endY)

Line segment id, startX, startY, endX, endy

Line(Line line)

Line Line

Line(PointF startP, PointF endP)

Line startPendP

getStartPoint()

setStartPoint(PointF startPointF)

getEndPoint()

setEndPoint(PointF endPoint)

```
getStartX()  
  
start x  
getStartY()  
  
star y  
getEndX()  
  
end x  
getEndY()  
  
end y  
getSegmentId()  
  
segment id  
setSegmentId(int segmentId)  
  
Segment id
```

## PointF

```
public class PointF,2d
```

```
PointF()  
  
PointF  
  
PointF(float x, float y)  
  
PointFxy  
  
PointF(PointF rhs)  
  
PointFPointF
```

```
getX()  
  
X  
setX(float x)  
  
X  
getY()  
  
Y  
setY(float y)  
  
Y
```

## Size

```
public class Size size
```

```
Size()  
  
Size  
  
Size(int width, int height)  
  
Sizewidthheight  
  
Size(Size rhs)
```



SizeSize

```
getWidth()  
  
width  
setWidth(int width)  
  
width  
getHeight()  
  
height  
setHeight(int height)  
  
height
```

com.slamtec.slamware.robot

HealthInfo

public class HealthInfo

HealthInfo.BaseError

```
HealthInfo()  
  
HealthInfo()  
HealthInfo(boolean warning, boolean error, boolean fatal, java.util.ArrayList<HealthInfo.BaseError> errors)  
HealthInfo()warning/error/fatal/  
  
  
getErrors()  
  
  
isError()  
  
Boolean  
isFatal()  
  
Boolean  
isWarning()  
  
Boolean  
setError(boolean error)
```

error	

```
setErrors(java.util.ArrayList<HealthInfo.BaseError> errors)
```

--	--

errors	

setFatal(boolean fatal)

fatal	

setWarning(boolean warning)

warning	

HealthInfo.BaseError

HealthInfo

Fields

BaseErrorLevelHealthy

BaseErrorComponentMotion

BaseErrorComponentPower

BaseErrorComponentSensor

BaseErrorComponentSystem

BaseErrorComponentUnknown

BaseErrorComponentUser

BaseErrorLevelError

BaseErrorLevelFatal

BaseErrorLevelUnknown

BaseErrorLevelWarn

BaseComponentErrorTypeUnknown

BaseComponentErrorTypeUser

BaseComponentErrorTypeSystemNone

( )

BaseComponentErrorTypeSystemEmergencyStop

BaseComponentErrorTypeSystemTemperatureHigh

BaseComponentErrorTypeSystemTemperatureLow

BaseComponentErrorTypeSystemWatchDogOverflow

BaseComponentErrorTypeSystemCtrlBusDisconnected

BaseComponentErrorTypeSystemSlamwareRebooted

slamware

BaseComponentErrorTypePowerNone

( )

BaseComponentErrorTypePowerControllerDown

BaseComponentErrorTypePowerPowerLow

BaseComponentErrorTypePowerOverCurrent

BaseComponentErrorTypeMotionNone

( )

BaseComponentErrorTypeMotionControllerDown

BaseComponentErrorTypeMotionMotorAlarm

BaseComponentErrorTypeMotionMotorDown

BaseComponentErrorTypeMotionOdometryDown

BaseComponentErrorTypeMotionBrushStall

()

BaseComponentErrorTypeMotionBlowerStall

BaseComponentErrorTypeSensorNone

BaseComponentErrorTypeSensorControllerDown

BaseComponentErrorTypeSensorBumperDown

BaseComponentErrorTypeSensorCliffDown

BaseComponentErrorTypeSensorSonarDown

BaseComponentErrorTypeSensorDustbinBlock

()

BaseComponentErrorTypeSensorDustbinGone

()

BaseComponentErrorTypeSensorWallIrDown

()

BaseComponentErrorTypeSensorMagTapeTriggered

BaseComponentErrorTypeSensorMagSelfTestFailed

BaseError()

BaseError

BaseError(int id, int errorCode, int errorLevel, int errorComponent, int componentErrorCode, java.lang.String errorMessage)

BaseError

error code	
error level	
error component	
componentErrorCode	
errorMessage	

getComponentErrorCode()

```

int
getErrorCode()

int
getErrorComponent()

int
getErrorLevel()

int
getErrorMessage()

string
getId()

idint
setComponentErrorCode(int componentErrorCode)

int
setErrorCode(int errorCode)

int
setErrorComponent(int errorComponent)

int
setErrorLevel(int errorLevel)

int
setErrorMessage(java.lang.String errorMessage)

string
setId(int id)

IdIdint

```

## LaserPoint

```
public class LaserPoint,
```

```

LaserPoint()

LaserPoint
LaserPoint(float distance, float angle)

LaserPoint
LaserPoint(float distance, float angle, boolean valid)

LaserPoint
LaserPoint(LaserPoint rhs)

LaserPointLaserPoint

getDistance()

setDistance(float distance)

getAngle()

```

```
setAngle(float angle)
```

```
isValid()
```

```
setValid(boolean valid)
```

## LaserScan

```
public class LaserScan
```

```
LaserScan()
```

```
LaserScan
```

```
LaserScan(java.util.Vector<LaserPoint> laserPoints)
```

```
LaserScanLaserPoints
```

```
LaserScan(java.util.Vector<LaserPoint> laserPointsPose pose)
```

```
LaserScanLaserPointPose
```

```
LaserScan(LaserScan rhs)
```

```
LaserScanLaserScan
```

```
getLaserPoints()
```

```
setLaserPoints(java.util.Vector<LaserPoint> laserPoints)
```

```
getPose()
```

```
setPose(Pose pose)
```

## Location

```
public class Location3d
```

```
Location()
```

```
Location
```

```
Location(float x, float y, float z)
```

```
Locationxyz
```

```
Location(Location rhs)
```

```
LocationLocation
```

```
distanceTo(Location that)
```

```
Location
```

```
getX()  
X  
setX(float v)  
X  
getY()  
Y  
setY(float v)  
Y  
getZ()  
Z  
setZ(float v)  
Z
```

## Map

```
public class Map
```

```
Map(PointF origin, Size dimension, PointF resolution, long timestamp, byte[] data)
```

```
Map
```

```
getOrigin()
```

```
origin
```

```
setOrigin(PointF origin)
```

```
origin
```

```
getDimension()
```

```
dimension
```

```
setDimension(Size dimension)
```

```
dimensions
```

```
getResolution()
```

```
resolution
```

```
setResolution(PointF resolution)
```

```
resolution
```

```
getTimestamp()
```

```
time stamp
```

```
setTimestamp(long timestamp)
```

```
time stamp
```

```
getMapArea()
```

```
map area
```

```
getData()
```

```
data
```

```
setData(byte[] data)
```

```
data
```

## NetworkMode

## Fields

NetworkModeAP

AP

NetworkModeStation

Station

NetworkModeWifiDisabled

Wifi

NetworkMode()

NetworkMode()

## Pose

public class Pose

Pose()

Pose

Pose(Location loc, Rotation rot)

Poselocros

Pose(float x, float y, float z, float yaw, float roll, float pitch)

Posexyzyawrollpitch

Pose(Pose rhs)

PosePose

Location getLocation()

Location

setLocation(Location location)

Location

getRotation()

rotation

setRotation(Rotation rotation)

rotation

getX()

X

setX(float v)

X

getY()

Y

setY(float v)

Y

getZ()

Z



```
setZ(float v)
```

**Z**

```
getYaw()
```

**yaw**

```
setYaw(float v)
```

**yaw**

```
getRoll()
```

**roll**

```
setRoll(float v)
```

**roll**

```
getPitch()
```

**pitch**

```
setPitch(float v)
```

**pitch**

## Rotation

```
public class Rotation
```

```
Rotation()
```

**Rotation**

```
Rotation(float yaw)
```

**Rotationyaw**

```
Rotation(float yaw, float pitch, float roll)
```

**Rotationyawpitchroll**

```
Rotation(Rotation rhs)
```

**RotationRotation**

```
getYaw()
```

**yaw**

```
setYaw(float yaw)
```

**Yaw**

```
getRoll()
```

**roll**

```
setRoll(float roll)
```

**roll**

```
getPitch()
```

**pitch**

```
setPitch(float pitch)
```

**pitch**

## SystemParameters

```
SystemParameters()
```

```
SystemParameters
```

## Fields

```
SYSPARAM_ROBOT_SPEED
```

```
SYSVAL_ROBOT_SPEED_HIGH
```

```
SYSVAL_ROBOT_SPEED_MEDIUM
```

```
SYSVAL_ROBOT_SPEED_LOW
```

## SleepMode

```
Unknown
```

```
Slamware
```

```
Awake
```

```
,
```

```
WakingUp
```

```
(wakeup())
```

```
Asleep
```

```
„wakeup()WakingUp,Awake
```

## DockingStatus

```
Unknown
```

```
DockingSlamware
```

```
OnDock
```

```
NotOnDock
```

## PowerStatus

```
public PowerStatus(boolean isDCConnected, DockingStatus dockingStatus, boolean isCharging,int batteryPercentage,  
SleepMode sleepMode)
```

```
public boolean isDCConnected()
```

```
public DockingStatus getDockingStatus()
```

## Docking

```
public boolean isCharging()
```

```
public int getBatteryPercentage()
```

0~100

```
public SleepMode getSleepMode()
```

## GridMap

```
public Location getOrigin()
```

```
public void setOrigin(Location origin)
```

```
public Size getDimension()
```

grid

```
public void setDimension(Size dimension)
```

grid

```
public PointF getResolution()
```

grid

```
public void setResolution(PointF resolution)
```

grid

```
public byte[] getMapData()
```

grid

```
public void setMapData(byte[] mapData)
```

grid

```
public void clear()
```

grid

## CompositeMap

```
public CompositeMap()
```

```
public CompositeMap(CompositeMap another)
```

```
public MapMetaData getMetaData()
```

Composite map

```
public void setMetaData(MapMetaData data)
```

Composite map

```
public ArrayList<MapLayer> getMaps()
```

Composite map

```
public void setMaps(ArrayList<MapLayer> maps)
```

Composite map

## MapKind

EXPLORE\_MAP

SLAM

SWEEP\_MAP

UWB\_MAP

UWB

## MapType

BITMAP\_8BIT

8bit integer

## MapLayer

MapLayer( )

MapLayer

getMetaData( )

getName( )

getUsage( )

clear( )

## PoseMap

MapLayer

PoseMap( )

PoseMap

getPoses( )

Poses map

setPoses( )

Poses map

## PointMap

PointMap( )

PointMap

PointMap(java.util.List points, long timestamp)

pointTimeStamp

getMapArea( )

rectF

getPoints( )

setPoints( )

## RecoverLocalizationMovement

Unknown

NoMove

RotateOnly

Any

## RecoverLocalizationOptions

RecoverLocalizationOptions( )

RecoverLocalizationOptions

getMaxRecoverTimeInMilliseconds( )

setMaxRecoverTimeInMilliseconds(Integer maxRecoverMS)

setRecoverMovementType(RecoverLocalizationMovement movementType)

movement

```
RecoverLocalizationMovement getRecoverMovementType()
```

```
movement
```

## SensorType

```
Bumper
```

```
Cliff
```

```
Sonar
```

```
DepthCamera
```

```
WallSensor
```

## SlamcoreShutdownParam

```
SlamcoreShutdownParam()
```

```
SlamcoreShutdownParam
```

```
int getRestartTimeIntervalMinute()
```

```
setRestartTimeIntervalMinute(int restartTimeIntervalMinute)
```

## SleepMode

```
Unknown
```

```
Awake
```

```
,
```

```
WakingUp
```

```
(wakeup())
```

```
Asleep
```

```
„wakeup()WakingUp,Awake
```

## RestartMode

```
SOFT
```

HARD

## LineMap

```
public HashMap<String, CompositeLine> getLines()  
  
line map  
  
public void setLines(HashMap<String, CompositeLine> lines)  
  
line map  
  
public void clear()  
  
line map
```

## PointsMap

```
public ArrayList<PointPDF> getPoints()  
  
points map  
  
public void setPoints(ArrayList<PointPDF> points)  
  
points map  
  
public void clear()  
  
points map
```

## ImpactSensorInfo

```
ImpactSensorInfo(int sensorId, Pose pose, ImpactSensorType type, SensorType coreSensorType, float refreshFreq)  
  
ImpactSensorInfo
```

```
getSensorId()  
  
id  
  
getPose()  
  
  
  
getKind()  
  
  
  
getType()
```

## ImpactSensorType

Digital

Analog

## ImpactSensorValue

```
ImpactSensorValue(long time, float value)
```

```
timevalue
```

```
getTime()
```

```
getValue()
```

## com.slamtec.slamware.exceptions

### AlreadyConnectedException

"Already Connected to the device"

### ConnectionFailException

"Connection Failed"

### ConnectionLostException

"Connection Lost"

### ConnectionTimeOutException

"Connection Time Out"

### InvalidArgumentException

"Invalid Argument"

### OperationFailException

"Operation Failed"

### OutOfResourceException

"Out of Resource"

### ParseInvalidException

"Failed to parse device data"

### PathFindFailException

"Failed to find path"

### RequestFailException

"Request Failed"

### RequestTimeOutException

"Request Time Out"



## UnauthorizedRequestException

"Unauthorized request"

## UnsupportedCommandException

" Unsupported Command"

## com.slamtec.slamware.message

### DepthCameraFrame

```
DepthCameraFrame()
```

```
DepthCameraFrame
```

```
setMinValidDistance(float minValidDistance)
```

```
float getMinValidDistance()
```

```
setMaxValidDistance()
```

```
float getMaxValidDistance()
```

```
setMinFovPitch(float MinFovPitch)
```

```
float getMinFovPitch()
```

```
setMaxFovPitch(float MaxFovPitch)
```

```
float getMaxFovPitch()
```

```
setMinFovYaw(float MinFovYaw )
```

```
float getMinFovYaw()
```

```
setMaxFovYaw(float MaxFovYaw)
```

```
float getMaxFovYaw()
```

```
setCols(int cols)
```

```
int getCols()
```

```
setRows(int rows)
```

```
int getRows()
```

```
setData(ArrayList<Float> data)
```

```
*cols*rows float
```

```
ArrayList<float> getData()
```

```
*cols*rows float
```

## com.slamtec.slamware.sdp

### Action

```
IAction
```

```
cancel()
```

```
getActionName()
```

```
string
```

```
getProgress()
```

```
0~1double
```

```
getStatus()
```

```
waitUntilDone()
```

```
isEmpty()
```

```
action
```

```
getActionId()
```

```
actionid
```

```
String getActionName()
```

```
action
```

```
String getReason()
```

```
actionnull0
```

```
"failed"action
```

```
"aborted"action(cancelactionaction)
```

```
"unreachable"()
```

```
"unhealthy",getRobotHealth(
```

```
"lifted",,"low_localization_quality"
```

```
moveToMoveOptionFlagKeyPointsflag,moveto:
```

```
getReason("blocked[lidar;wall;contact;depth_camera;sonar;cliff]",. "[],"",,().lidar:;wall:;contact:;depth_camera:;sonar:cliff:
```

```
releaseCPointer()
```

## CompositeMapHelper

```
CompositeMapHelper()
```

```
CompositeMapHelper
```

```
loadFile(String var1)
```

```
saveFile(String var1, CompositeMap var2)
```