

# KBSW180106 SLAMWARE SDK API (Android)

AndroidSLAMWARE SDKAPI

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  - PoseMap
  - PointMap
  - RecoverLocalizationMovement
  - RecoverLocalizationOptions
  - SensorType
  - SlamcoreShutdownParam
  - SleepMode
  - RestartMode
  - LineMap
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  - ImpactSensorInfo
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  - ImpactSensorValue
- com.slamtec.slamware.exceptions

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

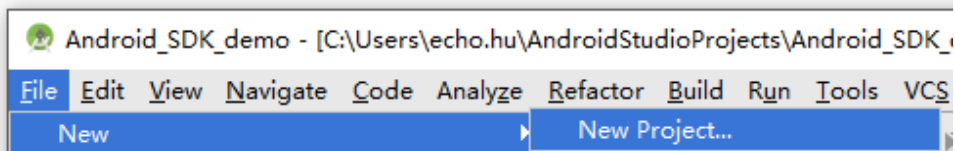
Android Slamware SDK

- 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.

The screenshot shows the 'Create New Project' dialog in Android Studio. The title bar reads 'Create New Project'. The main header area contains the Android Studio logo and the text 'New Project' and 'Android Studio'. Below this, the heading 'Configure your new project' is displayed. The form contains the following fields and controls:

- Application name:** A text input field containing 'My Application'.
- Company Domain:** A text input field containing 'slamtec.com'.
- Package name:** A text input field containing 'com.slamtec.myapplication', with an 'Edit' link to its right.
- Project location:** A text input field containing 'C:\Users\echo.hu\AndroidStudioProjects\MyApplication', with a browse button (three dots) to its right.

At the bottom right, there are four buttons: 'Previous' (disabled), 'Next' (active), 'Cancel', and 'Finish' (disabled).

3. Next

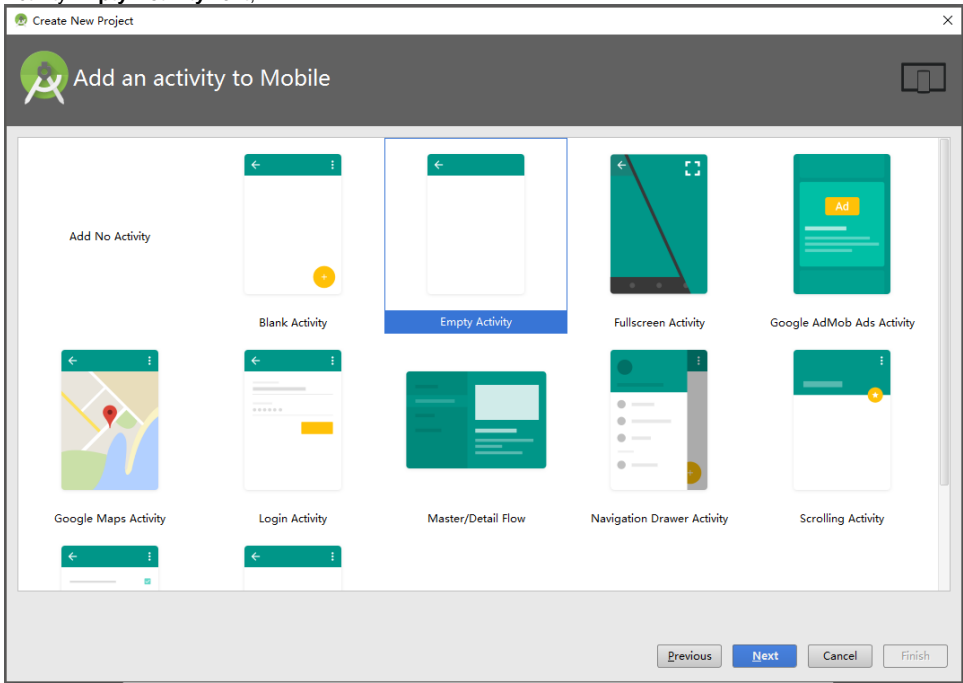
The screenshot shows the 'Create New Project' dialog in Android Studio, specifically the 'Target Android Devices' step. The title bar reads 'Create New Project'. The main header area contains the Android Studio logo and the text 'Target Android Devices'. Below this, the heading 'Select the form factors your app will run on' is displayed, followed by the sub-heading 'Different platforms may require separate SDKs'.

The form contains the following options and controls:

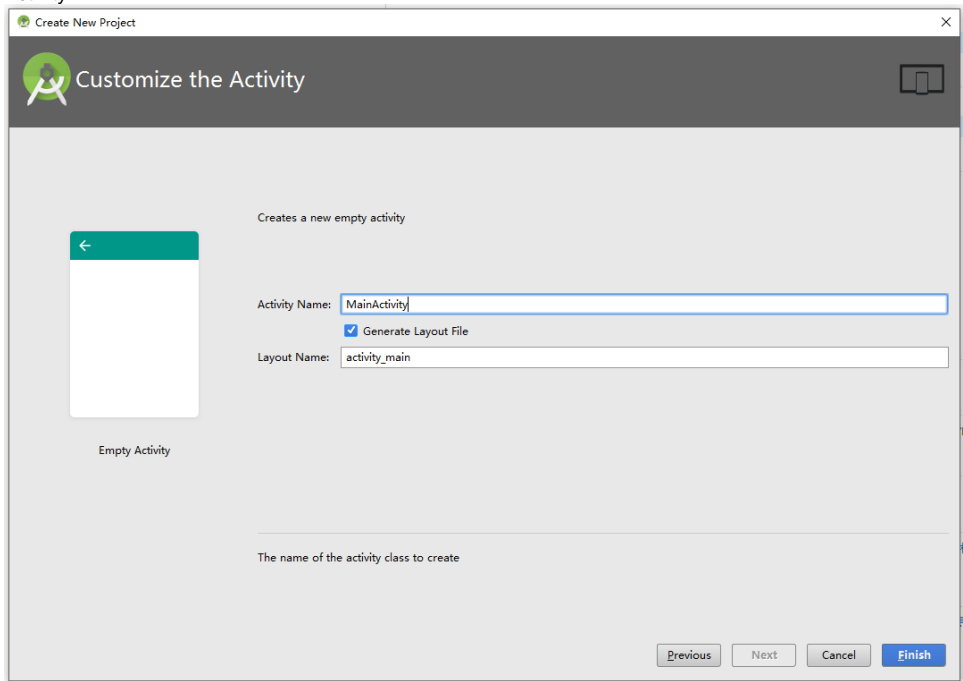
- Phone and Tablet:** A checked checkbox. Below it is a 'Minimum SDK' dropdown menu set to 'API 18: Android 4.3 (Jelly Bean)'. A note states: 'Lower API levels target more devices, but have fewer features available. By targeting API 18 and later, your app will run on approximately 76.9% of the devices that are active on the Google Play Store.' A link 'Help me choose' is provided.
- Wear:** An unchecked checkbox. Below it is a 'Minimum SDK' dropdown menu set to 'API 21: Android 5.0 (Lollipop)'.
- TV:** An unchecked checkbox. Below it is a 'Minimum SDK' dropdown menu set to 'API 21: Android 5.0 (Lollipop)'.
- Android Auto:** An unchecked checkbox.
- Glass:** An unchecked checkbox. Below it is an empty 'Minimum SDK' dropdown menu.

At the bottom left, there is a status indicator: 'Looking for SDKs available for download...'. At the bottom right, there are four buttons: 'Previous' (disabled), 'Next' (active), 'Cancel', and 'Finish' (disabled).

4. ActivityEmpty ActivityNext;

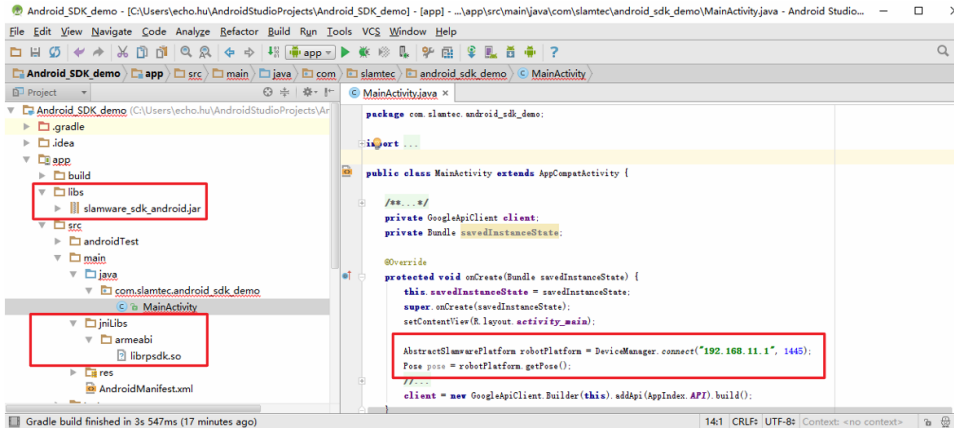


5. Activity



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)

Discovery

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()

model 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)

DeviceManager

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
wifiPassword	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)
```

```
FirmwareUpdateInfo(current/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)
Line segment id start point end 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)

ldldint
```

## 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)
```