

# KBSW180106 SLAMWARE SDK API (Android)

AndroidSLAMWARE SDKAPI

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  - NetworkMode
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  - MapType
  - MapLayer
  - PoseMap
  - PointMap
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  - RecoverLocalizationOptions
  - SensorType
  - SlamcoreShutdownParam
  - SleepMode
  - RestartMode
  - LineMap
  - PointsMap
  - ImpactSensorInfo
  - ImpactSensorType
  - ImpactSensorValue
- com.slamtec.slamware.exceptions

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

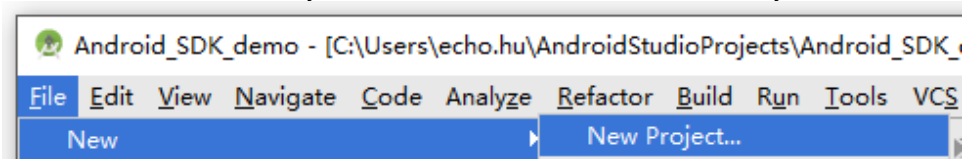
Android Slamware SDK

- Android 4.3Android 4.3

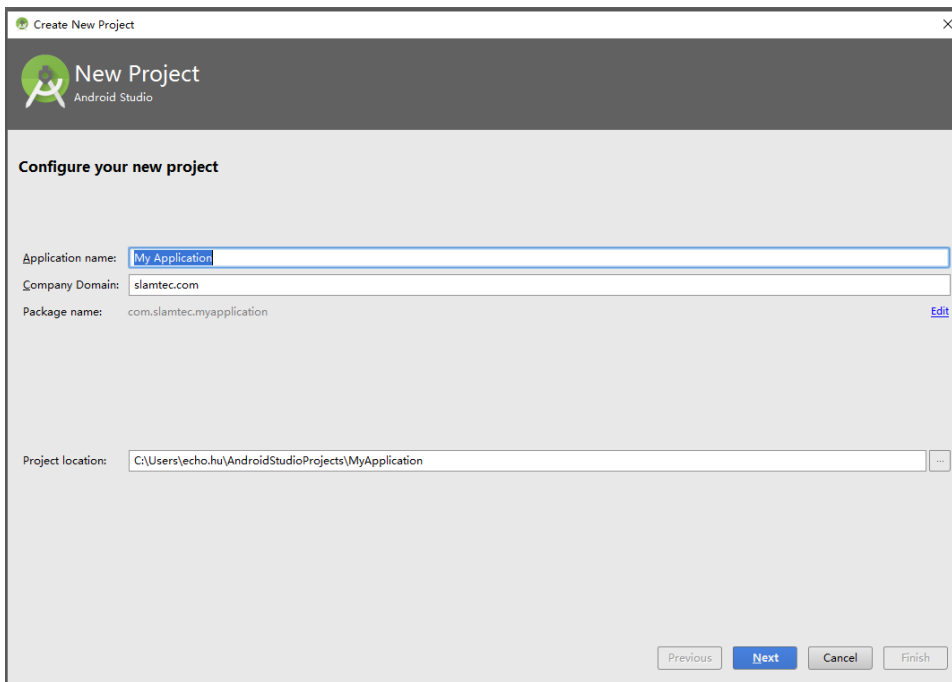
## SDK

- Slamware Android SDKslamtec\_agent.jararmeabiSDKAndroid

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

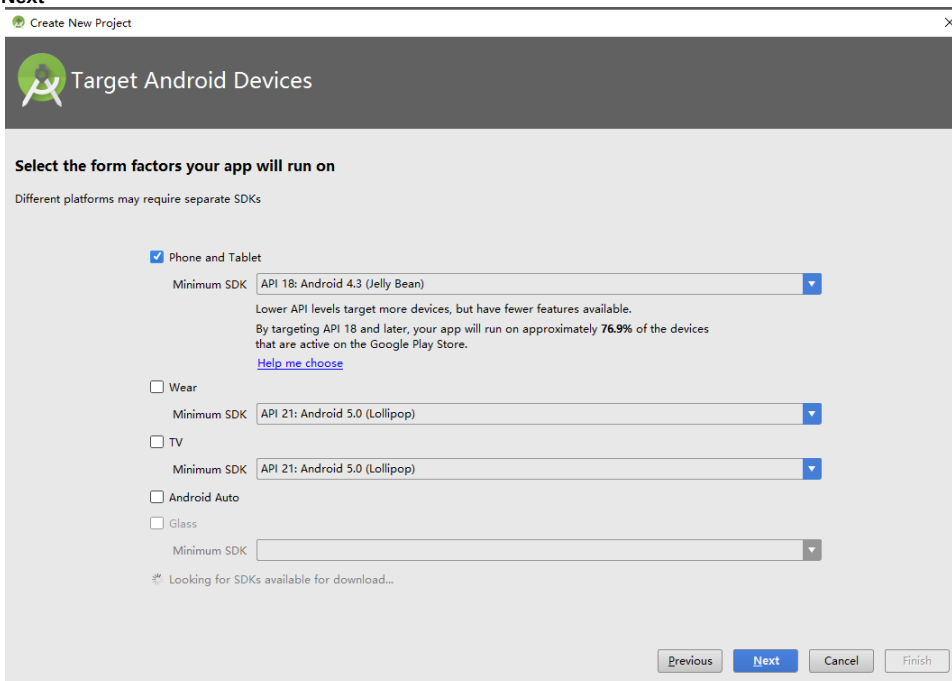


2.



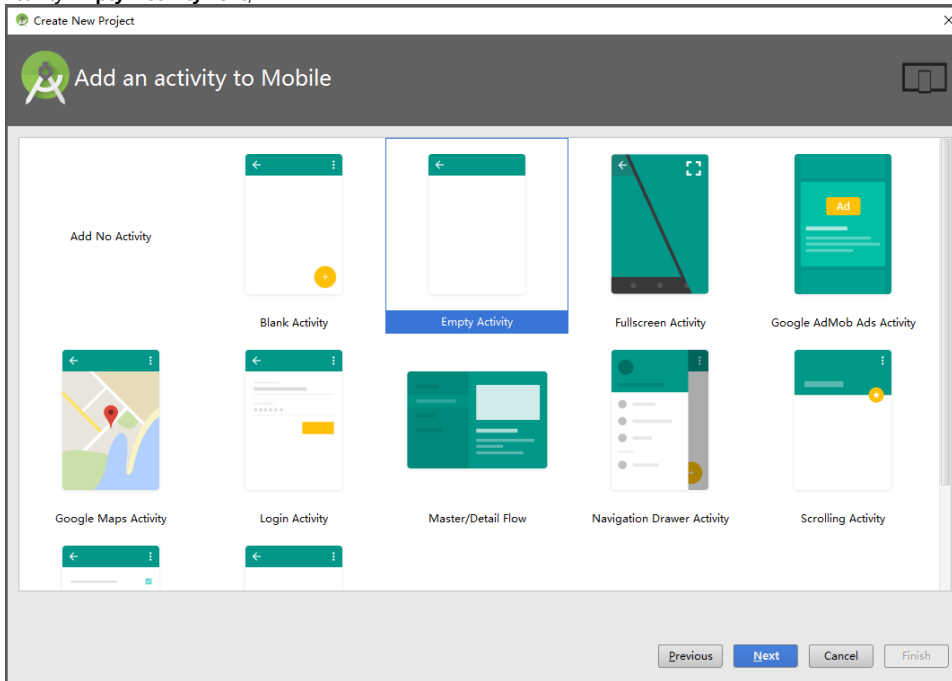
The screenshot shows the 'Create New Project' dialog in Android Studio. The title bar says 'Create New Project'. The main header area has the Android Studio logo and the text 'New Project'. Below this, the section is titled 'Configure your new project'. There are four input fields: 'Application name' with the value 'My Application', 'Company Domain' with 'slamtec.com', 'Package name' with 'com.slamtec.myapplication' and an 'Edit' link, and 'Project location' with 'C:\Users\echo.hu\AndroidStudioProjects\MyApplication'. At the bottom right, there are four buttons: 'Previous', 'Next' (highlighted in blue), 'Cancel', and 'Finish'.

3. Next

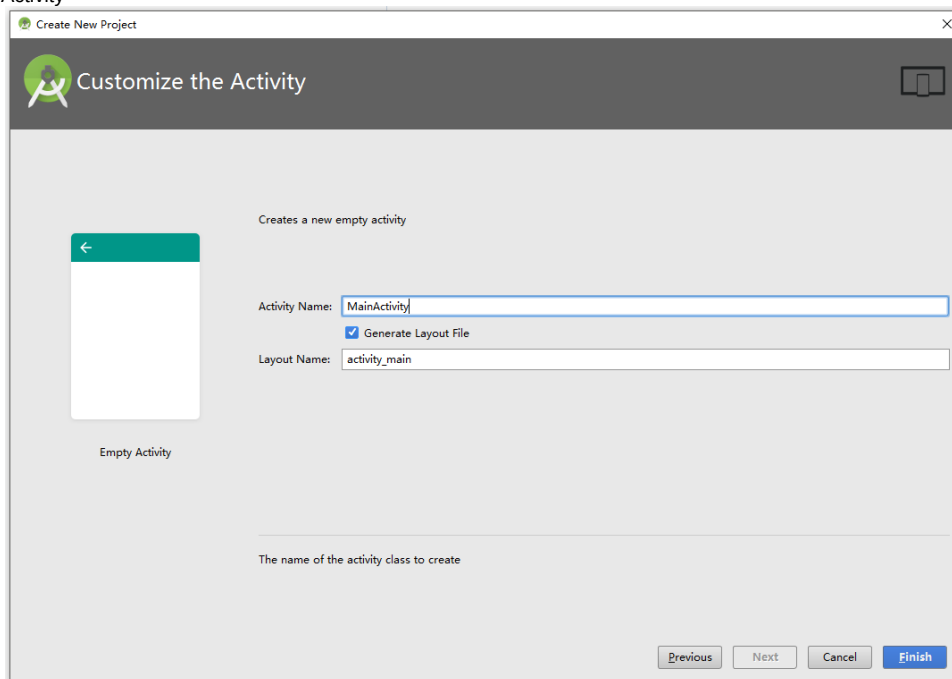


The screenshot shows the 'Create New Project' dialog in Android Studio, specifically the 'Target Android Devices' screen. The title bar says 'Create New Project'. The main header area has the Android Studio logo and the text 'Target Android Devices'. Below this, the section is titled 'Select the form factors your app will run on'. A note says 'Different platforms may require separate SDKs'. There are five options, each with a checkbox and a 'Minimum SDK' dropdown menu: 'Phone and Tablet' (checked, API 18: Android 4.3 (Jelly Bean)), 'Wear' (unchecked, API 21: Android 5.0 (Lollipop)), 'TV' (unchecked, API 21: Android 5.0 (Lollipop)), 'Android Auto' (unchecked), and 'Glass' (unchecked). Below these, there is a note: '\* Looking for SDKs available for download...'. At the bottom right, there are four buttons: 'Previous', 'Next' (highlighted in blue), 'Cancel', and 'Finish'.

#### 4. ActivityEmpty ActivityNext;

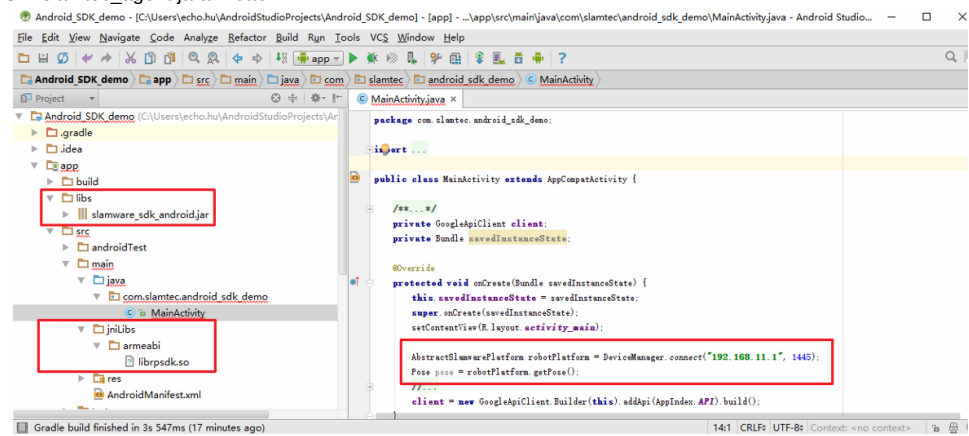


#### 5. Activity



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)

Discover

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)

Posexzyawrollpitch

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)