

KBSW180106 SLAMWARE SDK API (Android)

AndroidSLAMWARE SDKAPI

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

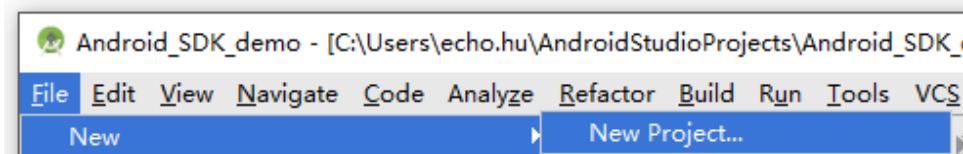
Android Slamware SDK

- Android 4.3

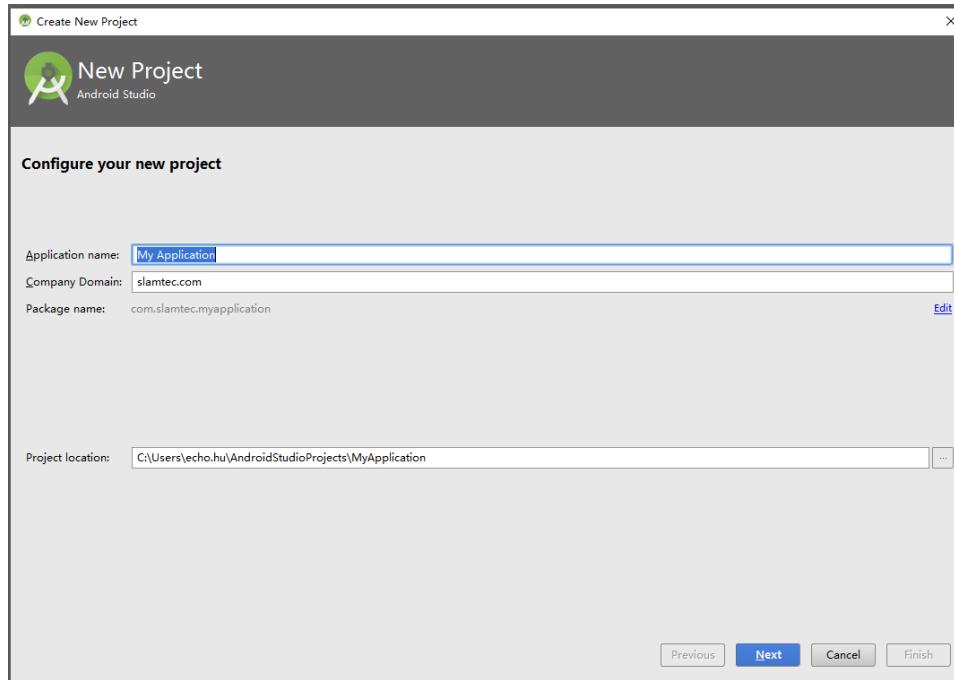
SDK

- Slamware Android SDkslamtec_agent.jararmeabiSDKAndroid

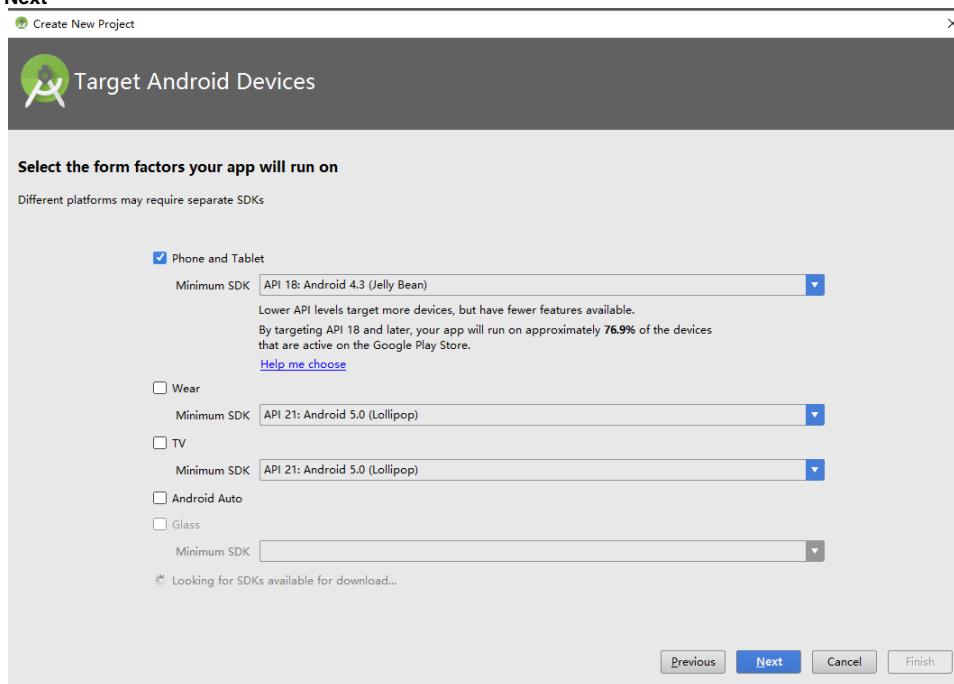
1. Android StudioFile>New>New ProjectAndroid Studio Start a new Android Studio Project



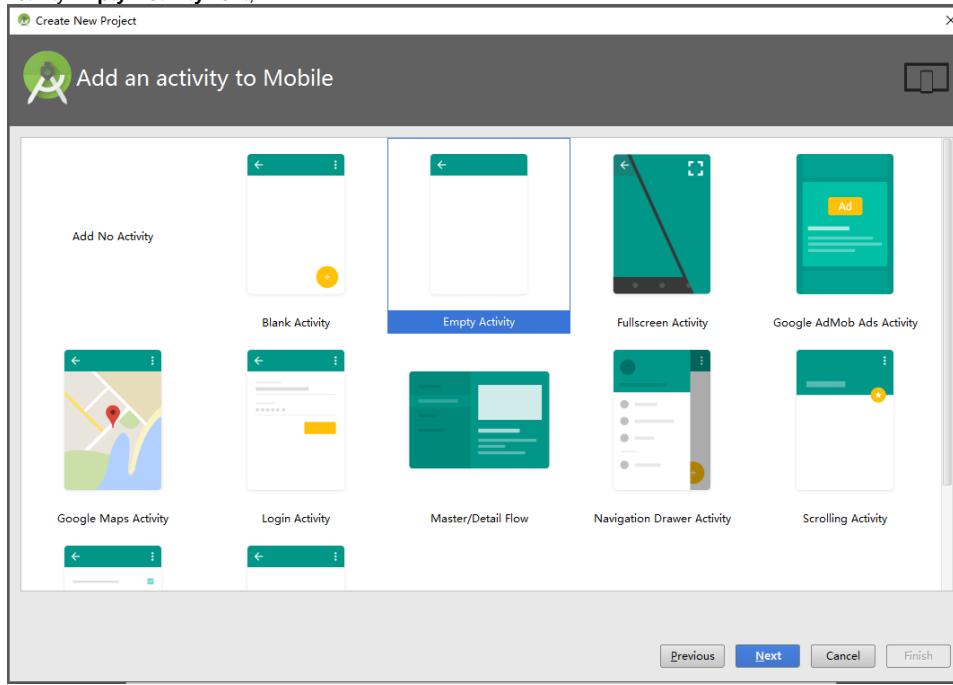
2.



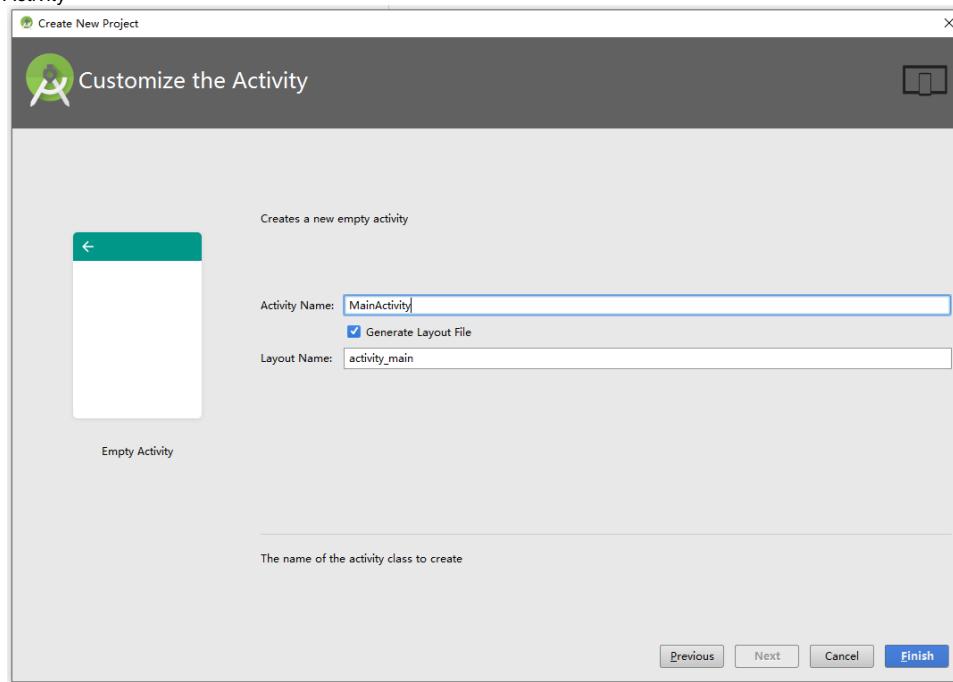
3. Next



4. ActivityEmpty ActivityNext:



5. Activity



Hello World

1. SDkslamtec_agent.jararmeabi

The screenshot shows the Android Studio interface with the following details:

- Project Tree:** The project is named "Android_SDK_demo". It contains a build folder with a "libs" subfolder containing "slamware_sdk_android.jar". The "src" folder contains "main" and "com.slamtec.android.sdk_demo". The "com.slamtec.android.sdk_demo" package has a "MainActivity.java" file.
- Code Editor:** The "MainActivity.java" file is open. The code defines a class `MainActivity` that extends `AppCompatActivity`. It includes imports for `java.util.List` and `com.google.android.gms.common.ConnectionResult`. The `onCreate` method is overridden to set the content view to `activity_main` and connect to a robot platform using `DeviceManager.connect("192.168.11.1", 1445)`.

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



```
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()
```

SLAMWARE SLAMWARE

```
getMapUpdate()
```

SLAMWARE SLAMWARE

```
getModelId()
```

id int

```
getModelName()
```

string

```
getNetworkStatus()
```

string

```
getPose()
```

```
getRobotHealth()
```

```
getSDKVersion()
```

SLAMWARE SDK SLAMWARE S D K

```
getSlamwareVersion()
```

SLAMWARE SLAMWARE

```
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)
```

SLAMWARE setPose move to

map	

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

SLAMWARE setPose

map	
type	

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

SLAMWARE setPose

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()
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

```

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)
Device can be found with
```

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/releaseDate/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()
start 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)  
Posexxyzawrollpitch  
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)
Rotation yaw
Rotation(float yaw, float pitch, float roll)
Rotation yaw pitch roll
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)

Composite map

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)
```

```
pointstamp
```

```
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”

ParseInvalidArgumentException

“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)
```