

KBSW180142 SDK-Windows

Windows SDKSDKMFC

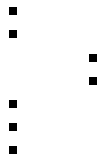
- SDK/Slamware

SDKMFC

- Windows
- SDK



SDK

[SDK_Ref_win32.7z](#)

- Visual Studio 2010 SP1
- Slamware Windows SDK: [Slamware Windows SDK](#)
- RoboStudio(): [Robostudio installer](#)
- Sample Code:



Visual Studio

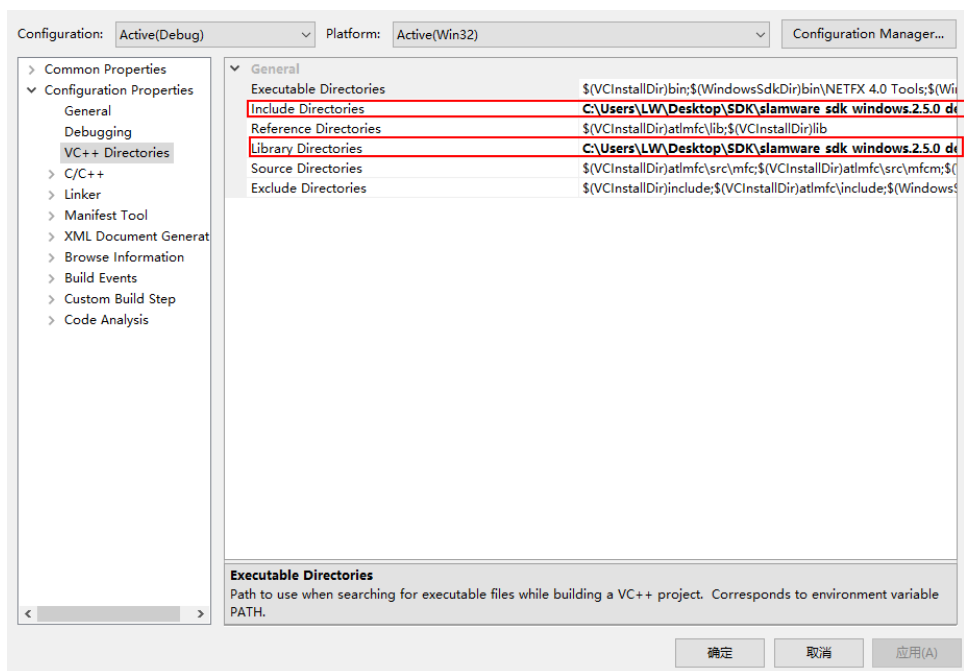
Visual Studio 2010SP1.Net FrameworkSP1

- Slamware SDP mini
- Slamware SDP
- Zeus/Apollo



Slamware SDKSlamcoreSDK

1. Slamware SDK includelib

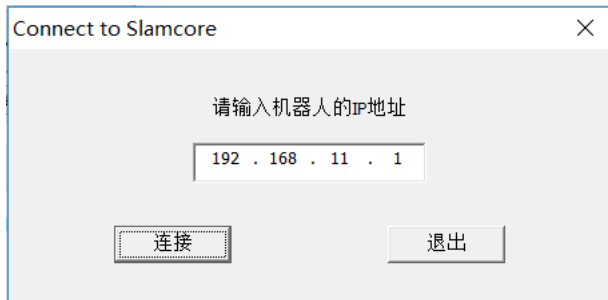


i Slamware SDKIncludelibVisual Studio
 .h
 warning

2. wifiSLAMWARE6MAC

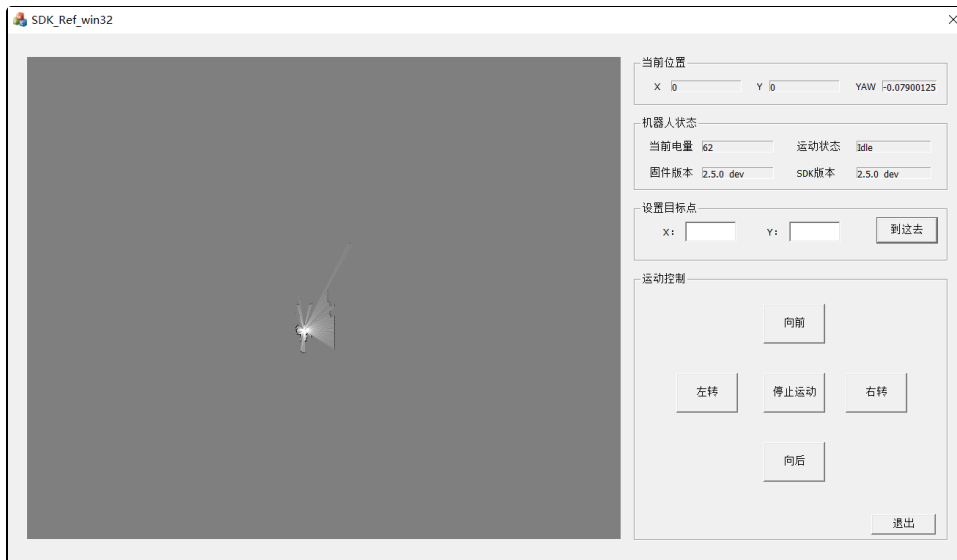


3.



wifiAPI192.168.11.1StationIP
IP192.168.11.1

4.



a.

- b. XYXY
- c.
- d.

1.

- a. `moveBy""`

```

void CSDK_Ref_win32Dlg::OnBnClickedBtnForward()
{
    // TODO: Add your control notification handler code here
    try{
        rpos::core::Direction direction(rpos::core::ACTION_DIRECTION::FORWARD);
        moveAction = robot.moveBy(direction);
    }catch(const ConnectionFailException &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    } catch(const RequestTimeOutException &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
    }catch(const std::exception &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
    }
}

```

b.
moveTo""

```

void CSDK_Ref_win32Dlg::OnBnClickedBtnMove()
{
    // TODO: Add your control notification handler code here
    double _x = _tstof(m_dest_x);
    double _y = _tstof(m_dest_y);

    try{
        rpos::core::Location loc(_x, _y);
        moveAction = robot.moveTo(loc, false, true);
    }catch(const ConnectionFailException &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    }catch(const std::exception &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    }
}

```

2.

33100

```

BOOL CSDK_Ref_win32Dlg::OnInitDialog()
{
    CDialogEx::OnInitDialog();
    .....

    // set timer#1 with interval 100 milisecond for status update
    SetTimer(1, 100, NULL);
    // set timer#4 with interval 33 milisecond for map update
    SetTimer(4, 33, NULL);

    .....
}

```

OnTimerOnTimer

```

void CSDK_Ref_win32Dlg::OnTimer(UINT_PTR nIDEvent)
{
    if(nIDEvent == 1)

```

```

{
    // TODO: Add your message handler code here and/or call default
    UpdateData(TRUE);
    try{
        // update current pose (position + heading angle)
        rpos::core::Pose pose = robot.getPose();
        m_info_x = pose.x();
        m_info_y = pose.y();
        m_info_yaw = pose.yaw();

        // update battery status
        m_info_battery = robot.getBatteryPercentage();

        // update action status
        if(moveAction.isEmpty())
            m_info_action_status = "Idle";
        else
        {
            switch(moveAction.getStatus())
            {
                case ActionStatusWaitingForStart:
                    m_info_action_status = "Waiting For Start";
                    break;

                case ActionStatusRunning:
                    m_info_action_status = "Running";
                    break;

                case ActionStatusFinished:
                    m_info_action_status = "Finished";
                    break;

                case ActionStatusPaused:
                    m_info_action_status = "Paused";
                    break;

                case ActionStatusStopped:
                    m_info_action_status = "Stopped";
                    break;

                case ActionStatusError:
                    m_info_action_status = "Error";
                    break;

                default:
                    m_info_action_status = "Error";
                    break;
            }
        }
    }catch(const ConnectionFailException &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    }catch(const std::exception &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    }
    // update the display
    UpdateData(FALSE);
}
else
{
    // update map display
    drawMap();
}
CDialogEx::OnTimer(nIDEvent);
}

```

```

void CSDK_Ref_win32Dlg::drawMap(void)
{
    BITMAPINFO _mapDesc ;
    DWORD* pData ;
    HBITMAP hBitmap ;

    try{
        // get map from slamware
        rpos::core::RectangleF knownArea = robot.getLocationProvider().getKnownArea
(MapTypeBitmap8Bit, location_provider::EXPLORERMAP);
        location_provider::Map map = robot.getMap(MapTypeBitmap8Bit, knownArea, rpos::
features::location_provider::EXPLORERMAP);
        int mapWidth = map.getMapDimension().x();
        int mapHeight = map.getMapDimension().y();

        // initialize the bitmap header structure
        memset(&_mapDesc, 0, sizeof
(_mapDesc)); // clear BITMAPHEADER
        _mapDesc.bmiHeader.biSize = sizeof(_mapDesc);
        // size of BITMAPHEADER
        _mapDesc.bmiHeader.biWidth =
mapWidth; // width by pixels
        _mapDesc.bmiHeader.biHeight =
mapHeight; // height by pixels
        _mapDesc.bmiHeader.biPlanes =
1; // 1 plane
        _mapDesc.bmiHeader.biBitCount =
32; // 24bit Color
        _mapDesc.bmiHeader.biCompression =
BI_RGB; // no compression
        _mapDesc.bmiHeader.biSizeImage = mapHeight * mapWidth; // size
by pixels

        // create DIB image to fill the map data
        hBitmap = CreatedIBSection (::GetDC(NULL), (BITMAPINFO *) &_mapDesc, DIB_RGB_COLORS,
(void**)&pData, NULL, 0);
        // fill the map data
        for (int posY = 0; posY < mapHeight; ++posY)
        {
            for (int posX = 0; posX < mapWidth; ++posX)
            {
                // get map pixel
                rpos::system::types::_u8 mapValue_8bit = map.getMapData()[posX + posY
* mapWidth] + 127;

                // fill the bitmap data
                pData[posX + posY*mapWidth] = RGB(mapValue_8bit, mapValue_8bit,
mapValue_8bit);
            }
        }
        // update bitmap map file to picture control component
        m_pic_map.SetBitmap(hBitmap);

    }catch(const ConnectionFailException &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    }catch(const std::exception &e)
    {
        MessageBox(_T(""), _T(""), MB_OK);
        CDialogEx::OnCancel();
    }
}

```



33drawMap33ms

-Slamware