

KBSW210715 ROS - sync_get_stcm

sync_get_stcm, sync_get_stcmstcm

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- - Ubuntu 16.04 X86
 - ROS Kinetic
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- Slamware Slamware
 - Apollo/Ares/Athena
 - Mapper
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ROS-

1.Slamware ROS SDKROS

2.ROS sdcsrccatkin_wsROS slamware_ros_samplesrccatkin

```
cd catkin_ws/src
catkin_init_workspace
```

3.

```
cd ..
catkin_make
```

4.

```
source devel/setup.bash
```

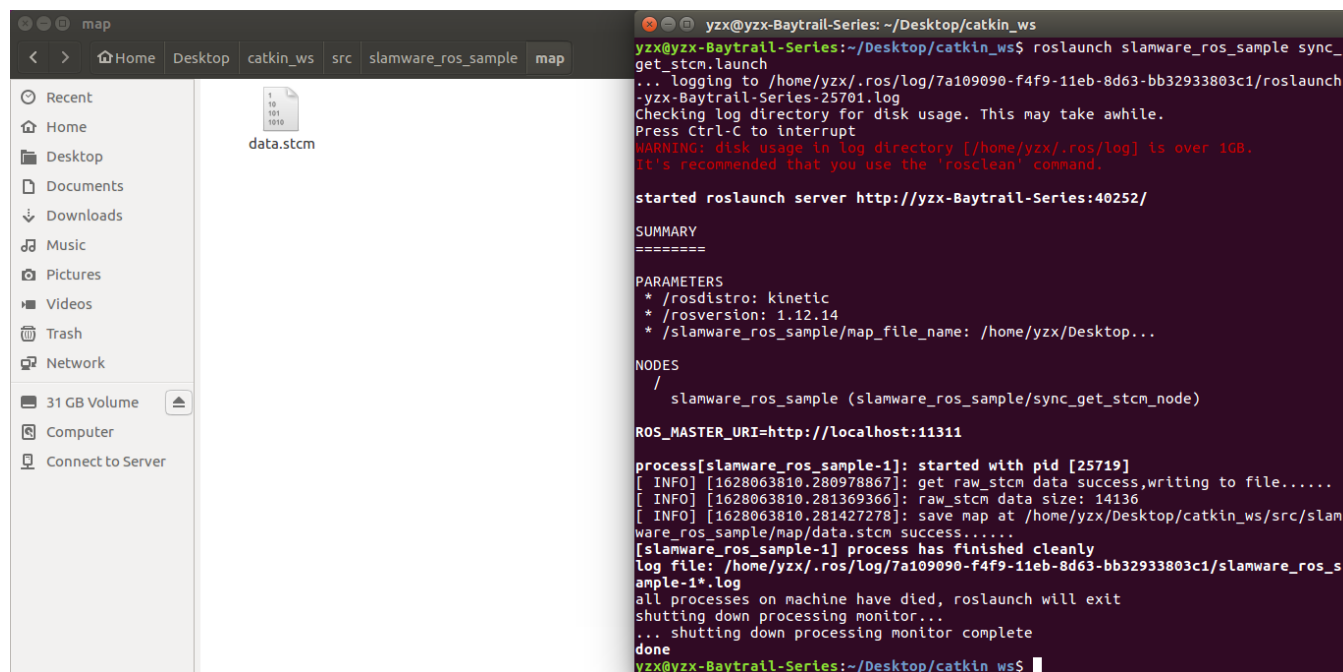
5.slamware_ros_sdk_server_node

```
roslaunch slamware_ros_sdk slamware_ros_sdk_server_node.launch ip_address:=10.6.128.141
//APip_address192.168.11.1
```

6.4sync_get_stcm_node

```
roslaunch slamware_ros_sample sync_get_stcm.launch
//launchmap_file_name
```

7.slamware_ros_samplemapdata.map



The image shows a file manager window on the left and a terminal window on the right. The file manager is displaying the contents of the 'map' directory, which includes a file named 'data.stcm'. The terminal window shows the execution of the 'roslaunch' command to start the 'slamware_ros_sample' package. The output of the command is displayed in the terminal, showing the launch process, the location of the log directory, and the successful completion of the launch. The terminal output includes a warning about disk usage in the log directory and a summary of the launch parameters and nodes.

```
yzx@yzx-Baytrail-Series: ~/Desktop/catkin_ws
yzx@yzx-Baytrail-Series:~/Desktop/catkin_ws$ roslaunch slamware_ros_sample sync_get_stcm.launch
... logging to /home/yzx/.ros/log/7a109090-f4f9-11eb-8d63-bb32933803c1/roslaunch-
-yzx-Baytrail-Series-25701.log
Checking log directory for disk usage. This may take awhile.
Press Ctrl-C to interrupt
WARNING: disk usage in log directory [/home/yzx/.ros/log] is over 1GB.
It's recommended that you use the 'rosclean' command.

started roslaunch server http://yzx-Baytrail-Series:40252/

SUMMARY
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PARAMETERS
* /rostdistro: kinetic
* /rosversion: 1.12.14
* /slamware_ros_sample/map_file_name: /home/yzx/Desktop...

NODES
/
  slamware_ros_sample (slamware_ros_sample/sync_get_stcm_node)

ROS_MASTER_URI=http://localhost:11311

process[slamware_ros_sample-1]: started with pid [25719]
[ INFO] [1628063810.280978867]: get raw_stcm data success, writing to file.....
[ INFO] [1628063810.281369366]: raw_stcm data size: 14136
[ INFO] [1628063810.281427278]: save map at /home/yzx/Desktop/catkin_ws/src/slam
ware_ros_sample/map/data.stcm success.....
[slamware_ros_sample-1] process has finished cleanly
log file: /home/yzx/.ros/log/7a109090-f4f9-11eb-8d63-bb32933803c1/slamware_ros_s
ample-1*.log
all processes on machine have died, roslaunch will exit
shutting down processing monitor...
... shutting down processing monitor complete
done
yzx@yzx-Baytrail-Series:~/Desktop/catkin_ws$
```

sync_get_stcm

```
int main (int argc, char **argv)
{
    std::string map_file_name;

    ros::init(argc, argv, "sync_set_stcm_node");
    ros::NodeHandle nh("~");
    ros::ServiceClient client = nh.serviceClient<slamware_ros_sdk::SyncGetStcm>("/slamware_ros_sdk_server_node/sync_get_stcm");
    slamware_ros_sdk::SyncGetStcm srv;

    //get file name from paramter server
    if (!nh.getParam("map_file_name",map_file_name))
    {
        ROS_ERROR("invalided file path.....");
        return 1;
    }

    //call service
    if (client.call(srv))
    {
        ROS_INFO("get raw_stcm data success,writing to file.....");

        //check whether the target folder exists. create one if not
        std::string dir;
        dir = map_file_name.substr(0,map_file_name.rfind("/"));
        if(access(dir.c_str(),0))
        {
            std::string cmd = "mkdir -p " + dir;
            system(cmd.c_str());
        }

        std::ofstream fout(map_file_name, std::ios::out | std::ios::binary);
        fout.write(reinterpret_cast<char *>(srv.response.raw_stcm.data()),(srv.response.raw_stcm.size()) * sizeof(srv.response.raw_stcm.front()));
        fout.close();

        ROS_INFO("raw_stcm data size: %zu",srv.response.raw_stcm.size());
        ROS_INFO("save map at %s success.....",map_file_name.c_str());
    }
    else
    {
        ROS_ERROR("Failed to get raw_stcm data.....");
        return 1;
    }

    return 0;
}
```