Version: V3.2.0-20240905

1,Support new IMU calibration model.

2,Support ubuntu22.04 platform.

3,Fix sony tof issue.

4,Add clsam and rgbd　into　ros2 wrapper.

5,Optimize slam algorithm.

6,Update gesture algorithm on android platform.

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Version: V3.2.0-20230907

1,Update the slam algorithm library.

2,Fix the conflict between SDK and ROS2.

3,Fisheye camera adds de-distortion processing.

4,Add sgbm and rgb april-tag in python wrapper.

5,Add multi-device support under windows platform.

6,Add iris recognition function under the android platform.

7,Fix the problem of reading sony tof calibration exception.

8,Support SDK for focal arm64 platform.

9,Suppport ROS2 wrapper.

10,Fix sdk issue.

11,Support iris license.

12,Remove unused demo.

13,Fix viewer rgb crash issue.

14,Fix demo api dewarp stream issue.

15,Fix android demo build issue.

16,Add log and sgbm raw image in ros2 wrapper.

======================================
Version: V3.2.0-20230516

1,Fix slam vision mode issue.

2,Update ROS wrapper to support SGBM depth raw data image.

3,Add gesture under the windows platform.

4,Remove RGBD limitation on 2085V5 devices.

5,Fix all_stream issue.

6,Fix JK 4eyes gesture issue.

======================================
Version: V3.2.0-20230316

1,Fix the problem that the android SDK cannot compile the sample code.

2,Fix the problem that all_stream runs without tof device crash.

3,Optimize the display effect of GX45FR RGBD.

4,Due to the device structure problem, the RGBD function of 2085V5 and 2085V4 is temporarily disabled.

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Version: V3.2.0-20230228
1,Add gesture library.
2,Fix apk crash problem.
3,Modify slam display & remove unused code in demo api.
4,Fix gesture issue.

====================================
Version: V3.2.0-20230130
1,Add stereo stream and stream tool.
2,Update slam library.
3,Add log in interface and add log in GPS class.
4,Fix issue that sdk log.
5,Add GPS & distance support.
6,Update usb driver.
7,Fix issue that when read calibration failed.
8,Fix issue that detach device.
9,Fix fisheye calibration issue.
10,Add noise calibration tool.
11,Add a bin to test the slam edge mode reset.
12,Add pause/resume function in slam.
13,Add slam point23d demo.
14,Add setFrameRate function in fisheye-camera.
15,Add fisheye keypoints of 4 camera function.
16,Add set fisheye framerate function in demo-api.
17,Add tof IR gamma function.
18,Add all in one device to SDK.
19,Add 2 RGB cameras to SDK.
20,Add 2 RGB cameras in all stream.

====================================
Version: V3.2.0-20221107
1, Fix android build issue.
2, Fix fisheye read calibration issue.
3, Fix issue that rgb and tof fps do not reproduce when rgbd disable.
4, Fix issue that compilation without OpenCV.
5, Add vision only and vision gyro mode in SDK.
6, Add three mode in demo-api.
7, Fix slam issue.

====================================
Version: V3.2.0-20221008
1, Add rgb AF/MF function.

2, Add hid tool into android.

3, Add dll version info under windows platform.

4, Update ubuntu python.

5, Add python wrapper fisheye camera manual exposure control.

6, Support GX45FRI.

7, Add recorder tool.

8, Fix tof ir issue.

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Version: V3.2.0-20220831

1, Fix vsc issue.

2, Fix python package

3, Ros wrapper support clasm function.

4, Fix usb sdk issue.

5, Restore the April tag function in all_stream.

6, Fix crash issue when stop camera.

7, Add log control function in demo-api.

=====================================

Version: V3.2.0-20220811

1, Update python about add opencv show.

2, Update hid write logic.

3, Fix issue that demo-api can not get stereo plane.

4   Fix fisheye resolution issue that read calibration from cameramodel.

5, Add interface for viewer to read calibration.

6, Fix issue that new calibration with 800P can not run slam.

7, Fix issue that demo-api can not run 6dof options whith vsc fisheye device.

8, Fix all_stream memory leak issue.

9, Fix issue that fisheye and slam will crash when use third-party input method.

10, Fix dapeng hot plug issue.

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Version: V3.2.0-20220725

1. Fix crash when pose lost in edge mode.

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Version: V3.2.0-20220720

1. Add hid glass log tool.

2. Dapeng branch merge.

    1. Add handle imu and handle fisheye data support.

    2. Add quad camera calibration parameter support.

    3. Add flash read and write interface.

    4. DaPeng hid command example document update.

3. Fix nan issue that wehn restart imu3dof.

4. Update android gesture gaze.

5. xslam prebuilds branch merged.

    1. Support android x86_64 platform.

    2. Fix plane detection issue.

6. Fix android build error.

7. Fix issue that 2085V5 FE can not switch resolution.

8. Update ros wrapper.

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Version: V3.2.0-20220707

1. Fix rgbd calibration is error when change tof resolution to QVGA and then hotplug.

2. Update ros wrapper about deep blue issues that add confidence data and publisher crash.

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Version: V3.2.0-20220629

1. Decrease the CNN output log level.

2. Fix android and windows demo api crash issue when hot plug.

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Version: V3.2.0-20220624

1. Add FE framerate setting in demoapi(Item 84 and 85).

2. Add function that client can build demo-api on windows, linux and android platfrom.

3. Fix issue that option 48 of the demo api als has no event reported.

4. Fix issue that automatically jump to the resolution setting after completing the sgbm stream mode setting in demo-api.

5. Fix issue that run demo-api option 29 and 31, unplug the module and still have data output in demo-api.

6. Fix issue that demo-api can not run slam when choose option 25 and 27 under windows platform.

7. Add pose scalse calibration in sdk.

8. Ros wrapper update about fix deep blue issues

    1. ros wrapper crash issue.

    2. The problem that sgbm frame rate is too low.

    3. CPU load is too high.

9. Change pmd tof width and height when faceID is avaliable in SDK.

10. Fix issue that client can not build example soft on linux platform.

11. Fix issue that slam can not supoort sony tof(DepthImage::Type::Depth_16).

12. Add ir image show in all_stream.

13. Python wrapper can build in xvsdk.

14. Create an icon which will be displayed inside the installation wizard, and an icon for the installer and uninstaller(windows and android platform).

15. Fix issue: Turn on RGB and TOF after plugging and unplugging, and turn on RGBD after the frame rate is restored. The frame rate of RGB and TOF varies between 0 and 2, and RGBD does not

show any pictures.

16. Fix CNN crash issue.

17. Add function that save point cloud datas to pcd file in SDK.

18. Fix issue that run stereo camera the slam and imu will stuck.

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Version: V3.2.0-20220520

1. Ros wrapper support firmware point cloud.

2. Fix issue that viewer RGBD no image when setting the tof parameters to 'DF VGA LABELIZE'.

3. Fix demo api issue that article 48 als no incident reported.

4. Fix demo api issue that article 48 The type and state reported by the P-sensor event are Unknown.

5. Fix demo api issue that demo api crashes when switching to PointCloud mode for the first time after plugging and unplugging.

6. Fix demo api issue that There is no RGBD data after setting the rgb resolution for the second time.

7. Fix issue that viewer will crash use firmware that slam and sgbm.

8. Fix issue that slam can't run when running 6dof data on windows platform use demo api tool(2 item).

9. Support dowmsample function include SDK, viewer, all_stream adn sgbm demo.

10. Fix issue that hot plug crash.

11. Fix the problem that the slam is stuck after the viewer opens the sgbm.

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Version: V3.2.0-20220510

Description:

1. python optimization(only windows)

    a)Add 6Dof quaternion.

    b)Added internal and external parameter interfaces for all cameras.

    c)Added slam reset.

2. The HID document is finally merged into the html document.

3. Fix the problem that running all_stream RGBD images has a bluish tint.

4. Fisheye resolution 720P and VGA switching function.

5. ROS optimization:

    a)Tof point cloud without rgb mode.

    b)sgbm point cloud issue fix.

6. The demo-api project is packaged into the installation package.

    a)windows platform path -> C:\Program Files\xvsdk\samples\demo-api

    b)ubuntu platform path -> /usr/share/xvsdk/demo-api

7. SDK optimization for hot plugging(Increase the reading time of the SDK to the device).

8. Fix bug that imt get bad data,SDK crash.

9. Add python wrapper under ubuntu platform.

10. Fix bug that the viewer crash when open slam and tof under windows platform.

11. Update ros wrapper.

12. Update 3dof gyro copy.

13. Fix demo api bugs.

    a)command 25 ~30 need to add stop options, instead of "CTRL + C"

    b)Enter 0 to 4 to switch the rgb format, and the switch is displayed successfully when the number exceeds 4.

    c)After the pipe_srv terminal outputs RGBD data, the RGB resolution is switched, and the terminal only outputs tof data.

    d)After reading the glass parameter, switch the glass, and the output is still the parameters of the previous glass.

14. Fix the issue that the viewer will crash when full function is tested for a long time.

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Version: V3.2.0-20220406

Description:

1. demo api new functionals:

                tof all modes: resolution, 3 working modes, frame rate

                fisheye resolution switch

                tof point cloud

                sgbm point cloud

                rgbd

2. Fix the bug that the rgb resolution switching probability is stuck

3. ros tof point cloud

4. ros sgbm point cloud

5. Change the default mode of tof to qvga edge mode in ros wrapper

6. Automatic conversion of tof qvga calibration parameters

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Version: V3.2.0-20220321

Description:

1. Added tof qvga

2. arm64 ros support:

    a) Fix the bug that arm64 uvc and vsc cannot coexist

    b) Modify sgbm initial config to improve sgbm image quality

3. Added vga tof point cloud data:

    a) Interface:tofCamera()->depthImageToPointCloud(..), called in tof image callback, please refer to the relevant sample code for details;

    b) Test demo:all_stream "" "tof_point_cloud:1" , the point cloud file is saved in the running directory

4. Added sgbm point cloud:

    a) Interface:sgbmCamera()->depthImageToPointCloud(...), called in sgbm image callback, please refer to the relevant sample code for details;

    b) Test demo: sgbm_demo, the point cloud file is saved in the running directory

5. Change the default configuration parameters of sgbm of xvsdk:

```
static struct xv::sgbm_config global_config = {
    1, //enable_dewarp
```

```
        1.0, //dewarp_zoom_factor
        0, //enable_disparity
        1, //enable_depth
        0, //enable_point_cloud
        0.08, //baseline
        96, //fov
        255, //disparity_confidence_threshold
        {1.0, 0.0, 0.0, 0.0, 1.0, 0.0, 0.0, 0.0, 1.0}, //homography
        1, //enable_gamma
        2.2, //gamma_value
        0, //enable_gaussian
        0, //mode
        8000, //max_distance
        100, //min_distance
};
```

6. Package the sdk api documentation into the installation package
   a) linux path: /usr/share/doc/xvsdk/index.html
   b) android path: xvsdk_xxx_adnorid/doc/index.html
   c) windows path: <xvsdk_install_path>/doc/xvsdk/index.html
7. Fix the bug that sgbm cannot work in the demo-api test program
8. android libc++ static library integration
9. Gesture function integration (android only), requires corresponding hardware support, if you need this function, please contact xvisio support
10. The eye control function is integrated (only android), and the corresponding hardware support is required. If you need this function, please contact the xvisio support
11. Fix vsc fisheye firmware not working after hotplug

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Version: V3.2.0-20220304
Description:
1. vga tof mode settings:
       Freq: SF|DF
       mode:IQ|M2|edge
       FPS: 5-30
       Note that the fps setting item is not output according to the actual setting mode in some modes due to performance impact,
       the fps in the following table shall prevail:
            IQ DF: 30FPS
            IQ SF: 30FPS
            M2 DF: 4.5FPS
            M2 SF: 13FPS
            M2 DF: 3.5FPS
            M2 SF: 7FPS
2. vga tof Andoroid version

3. Added tof filter file settings

4. Fisheye resolution 640*800 /1280*800 switch

5. python wrapper

      a) Complete basic functions: 6dof, 3dof, rgb, tof, sgbm.

      b) only windows .

6. ros wrapper adds sgbm

7. arm64 ubuntu18

8. Fix log error such as hid/flash

9. Fix vga tof single-frequency dual-frequency switching automatic exposure does not take effect, need to match the firmware version 20220305

10. The rgb frame rate switch needs to match the firmware after version 20220305

11. fix tool

    a) remove audio_in, audio_out, rgb_on_uvc_stream

    b) Remove the log printing of Alx in imu_stream

    c) remove error message printing in thermal_stream

    d) Fixed the problem of garbled characters in the log of the slam_3dof_display_calib tool in the Windows version

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Version: V3.2.0-20220220

Description:

1. fix the stability of windows usb transfer process;

2. Complete the vga tof distance mode switching function;

    long:IQMODE VGA Dul freq

    short:IQMODE VGA single freq

    middle:IQMODE VGA single freq

3. optimize the data processing of vga tof;

4. VGA TOF ROS release;

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Version: V3.2.0-20220125

1. vga tof release, only IQ mode

2. sgbm release