

Frequently Asked Questions

- Supported cameras by SDK
Topsens cameras: No activation required.
Third-party depth cameras: The trial version has a 5400 frames data limit. The sample programs use 30 frame rate, so the skeleton won't be displayed after 3 minutes. The official version needs to contact us for payment activation.
- The sample programs for Topsens cameras
 - Windows: TopsensExplorer, TopsensExplorerWpf, TopsensPointCloud, TopsensUserExtractor, TopsensUserExtractorWpf;
 - Linux: TopsensExplorer;
 - Android: TopsensExplorer;TopsensSquat, TopsensUserExtractor;
 - Unity: TopsensStickman;
 - ROS: topsens_explorer.
- The sample programs for RealSense cameras
 - Windows: TopsensRealSense, TopsensRealSenseWpf;
 - Linux: TopsensRealSense;
 - Android: TopsensRealSense;
 - Unity: TopsensRealSense;
 - ROS: topsens_realsense.
- What features are provided by the sample program?
Color image display, depth image display, skeleton image display, ground detection, point cloud image display, stickman control, fake sensor etc.
- The running environment of partial executable programs generated by the sample programs
 - Windows: Windows 7 and above, x64;
 - Linux: Ubuntu 16.04 and above, x86_64;
 - Android: Android 4.4 and above, armv7;
 - Unity: Windows 7 and above, x64; Android 4.3 and above, armv7;
 - ROS: Ubuntu 16.04 and above, x86_64.
- Build environment of sample programs
 - Windows: Visual Studio 2013. Open the .sln file in the sample program directory to build;
 - Linux: Qt Creator. Open .pro file in the sample program directory to build;
 - Android: Android Studio. Open the sample program directory to build;
 - Unity: Windows x86/x86_64 and Android platforms. Open the sample program directory to build;
 - ROS: Visual Studio Code. Open the sample program directory to build.
- Image direction
 - Landscape: The default mode. Camera is placed horizontally. Suitable for most scenarios;
 - PortraitClockwise and PortraitAntiClockwise: Camera is placed vertically. The vertical viewing angle is increased. Suitable for short distance recognition.
 - Aerial: View point is from ceiling to floor. Suitable for monitoring or more accurate height measurement.

- How to use Fake Sensor?
Fake Sensor is a playback tool developed for Topsens own cameras, and cannot be used for third-party cameras.
 - Windows and Unity: Run TopsensExplorer sample of Windows version to generate recording file .tsr, and run FakeSensor.exe of Windows version to playback the recording file;
 - Linux and ROS: Run TopsensExplorer sample of Linux version to generate recording file .tsr, and run FakeSensor.exe of Linux version to playback the recording file;
 - Android: Generate the recording file in Windows or Linux because there is performance limitation in Android processor, copy the recording file to the storage of the Android system, and playback in program. It is recommended to use 320x240 resolution to generate the recording file, so that it can be played back smoothly on Android.
- About configurable action library
 - Standard action library: Topsens.rpk is standard action library and the default action library. It is released with the standard version of the SDK, and users do not need to call it specially;
 - Special action library: Fitness action library, medical rehabilitation action library, etc., users need to download the separately, put it together with the standard action library, and call it in the application to use the specific action library.
- Data source of the sample program
Color and depth images are captured from the device as QVGA (320x240) or VGA (640x480) images.
- The number of identified joints
17 joints are recognized in the current version, including all common joints in the human body. More can be provided if needed.
- Joints coordinate unit
Meter.
- The number of identified
6 users are identified in the current version. More can be provided if needed.
- About the X, Y, and Z axis
The depth camera is the origin point. The X axis is positive right. The Y axis is positive up. The direction of the camera in the Z axis is positive.
- Can skeletons be set for smoothness and confidence?
The recognized skeletons are accurate and non-jittering, so there is no need to set smoothness and confidence.
- User extraction
The extracted user mask is provided by SDK. With simply overlaying the mask to color image, colorful user image can be acquired. Please refer to sample program for details.
- Ground detection
Ground formula is currently provided to determine ground pixels. Please refer to sample program for details.
- Will the identified skeleton data be retained when the identified user disappears from the screen or is no longer tracked?

When the user disappears, the skeleton data of the last frame will be kept for 2 seconds before disappearing. The time of 2 seconds can be adjusted if needed.