

# **Berxel Tools Instruction Manual**

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### Revision History

version number	dates	revision	author
2.0.80	2022/10/10	first edition	Allen

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## 1. Introduction

### 1.1. About BixelTools

BixelTools is a utility software developed by Bixel to demonstrate the performance of its proprietary 3D cameras. Key functions include device control, stream toggling, 3D point cloud visualization, image saving, and camera parameter configuration.

### 1.2. System compatibility

- Windows 7 / Windows 10 (x86 / x64)
- USB 2.0, 2A current
- Minimum 4 GB RAM
- CPU frequency 2.2 GHz or higher

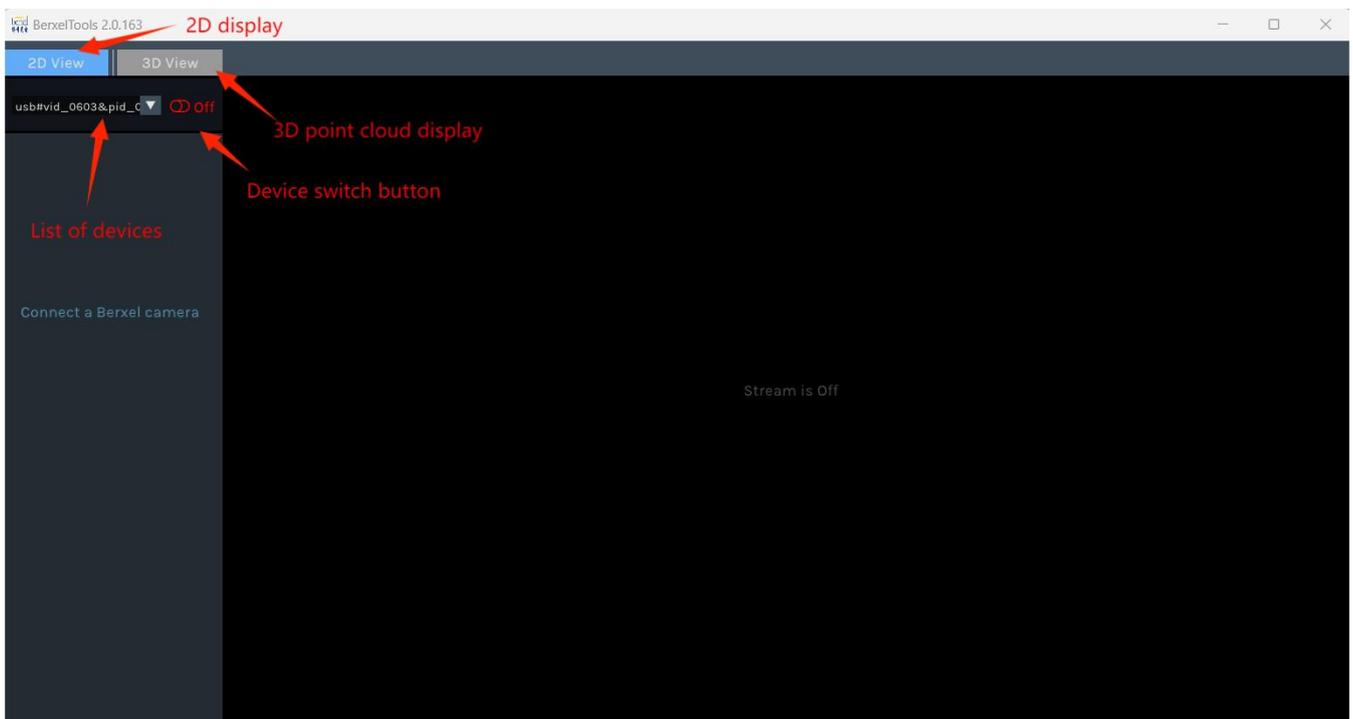
## 2. Functional Overview of BixelTools

BixelTools.exe is located in the installation package of BixelSDK, specifically under the subdirectory: \\Bixel\\BixelSDK\\Samples\\bin. A desktop shortcut will also be automatically created during installation.



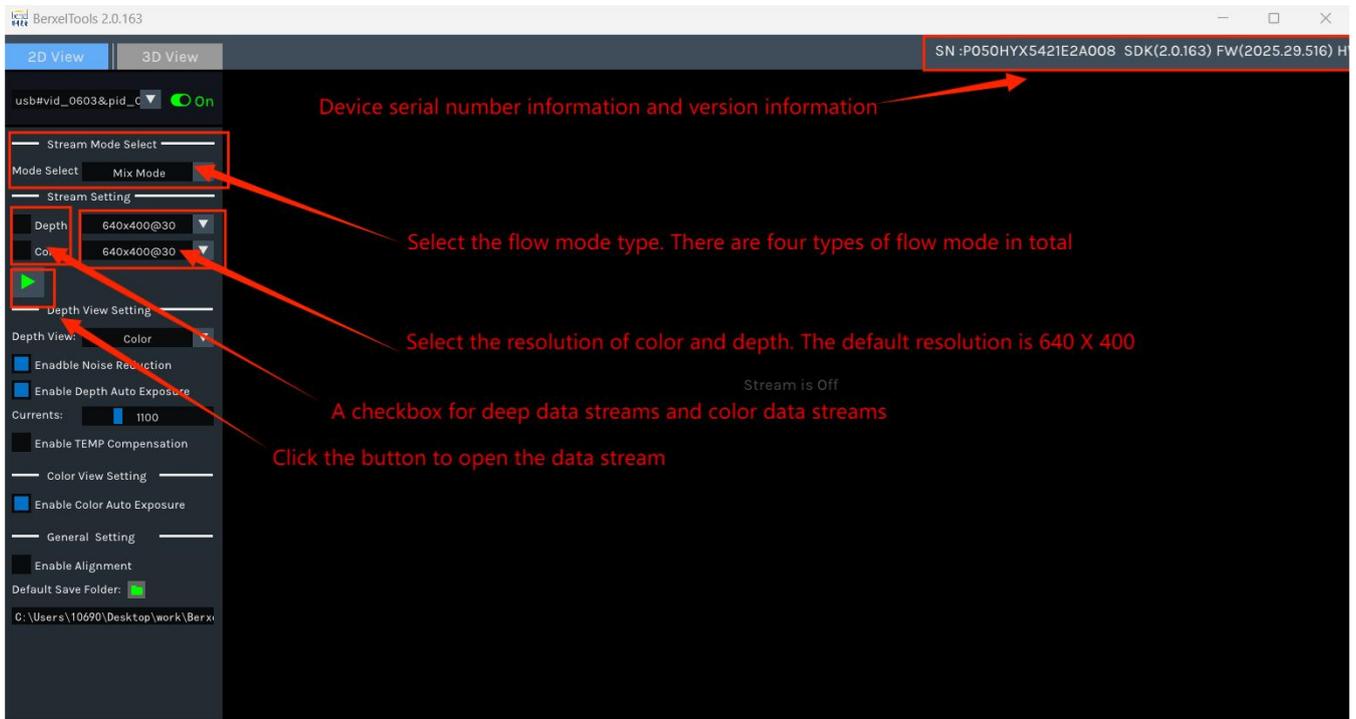
desktop shortcut

After double-clicking BixelTools, the following interface will appear:



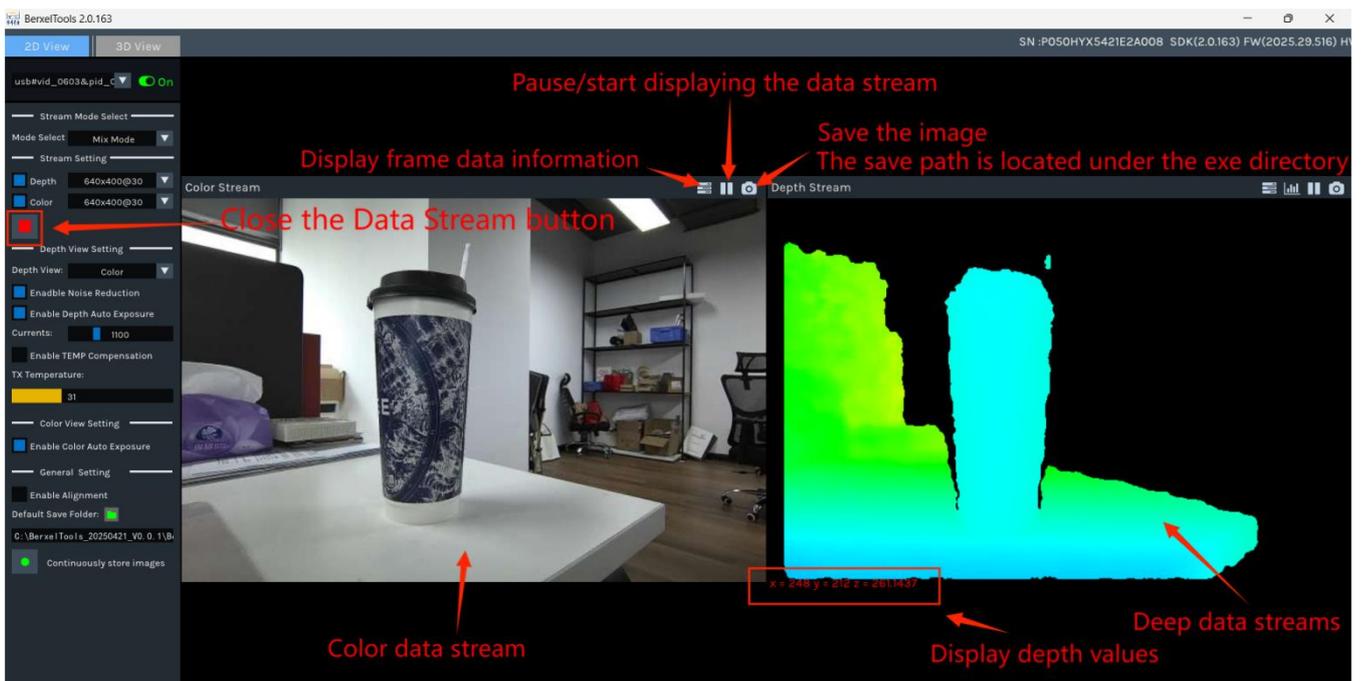
### 2.1. Device Activation

To activate the camera, click the Device Power Button. Once connected, stream options and device info (e.g. serial number, firmware version) will be displayed.



### 2.2. Stream Control

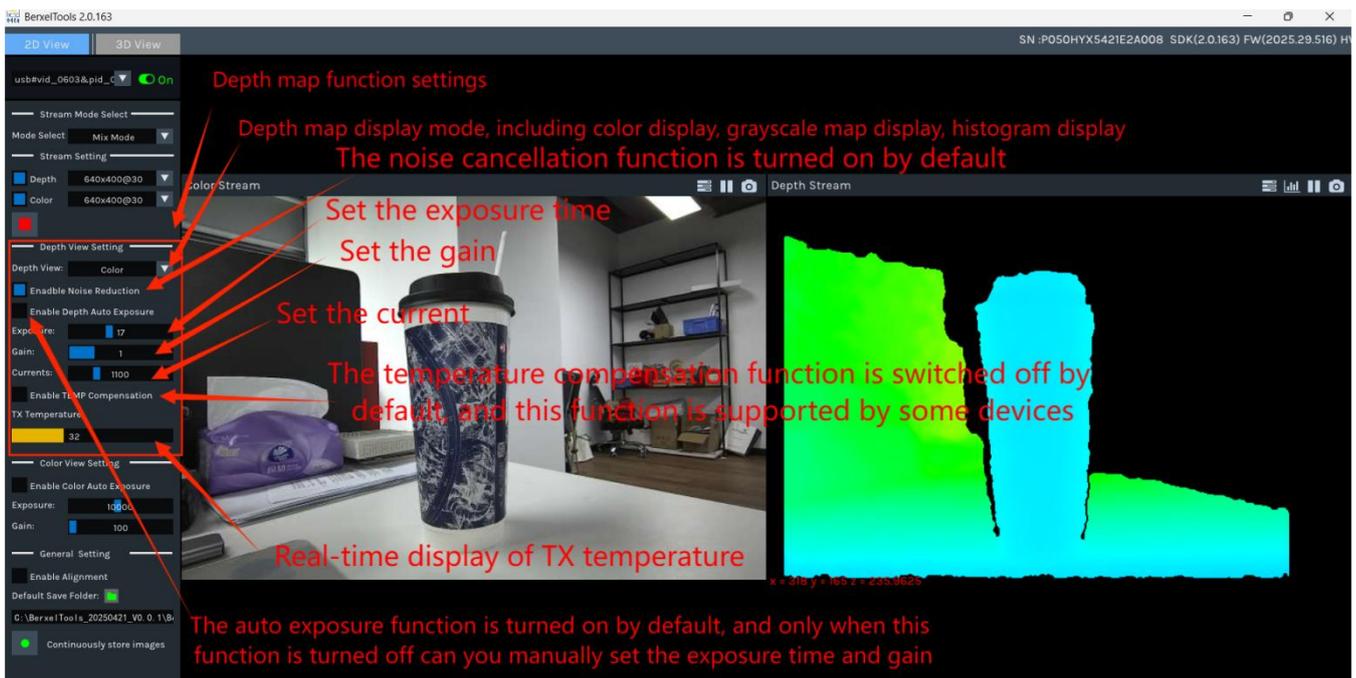
Click the Stream On/Off button to toggle image streaming. Both depth and color image streams will be displayed in real-time. Depth data is visualized as a pseudo-color or grayscale map, with depth values shown dynamically.



### 2.3. Depth Settings

Available options:

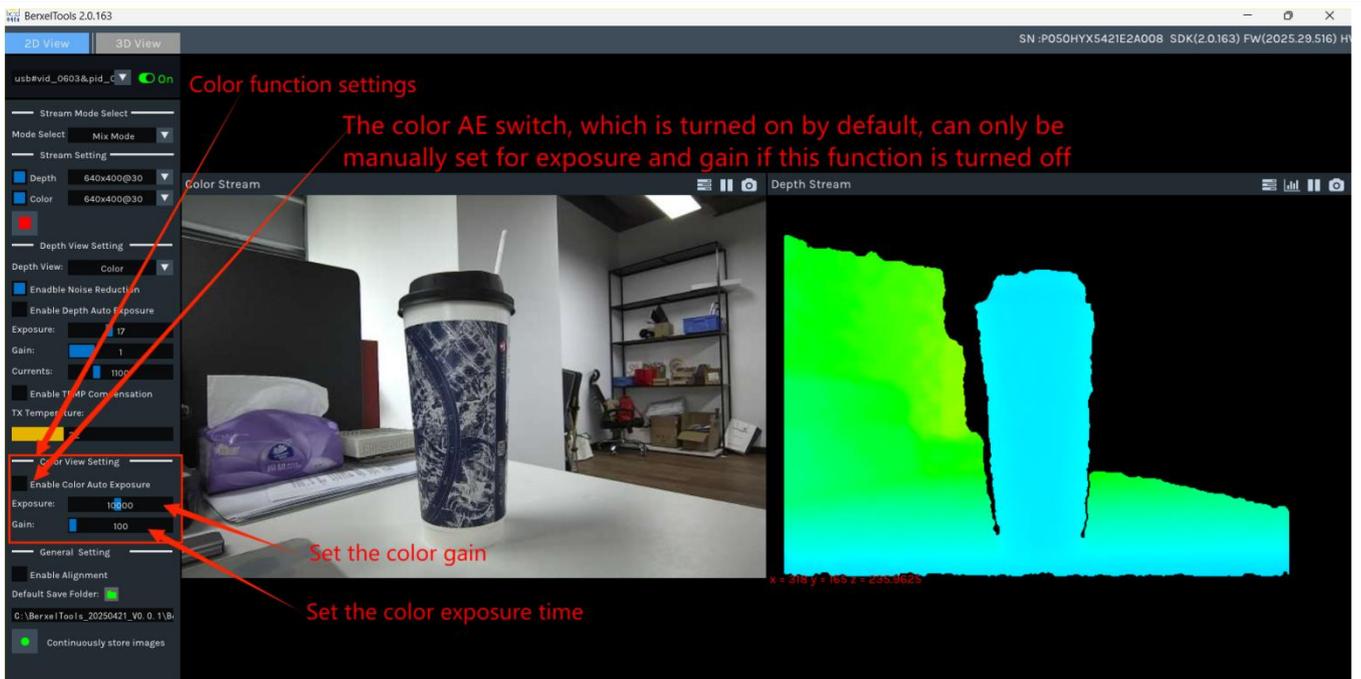
- 1) Depth visualization mode: pseudo-color, grayscale, or histogram
- 2) Enable/disable noise reduction (default: enabled)
- 3) Auto-exposure toggle (default: enabled). When disabled, manual adjustment of Gain and Exposure Time is enabled
- 4) Configure Deep Exposure Time, Gain, Current
- 5) Temperature Compensation (TX TEMP): optional and hardware-dependent



### 2.4. Color Settings

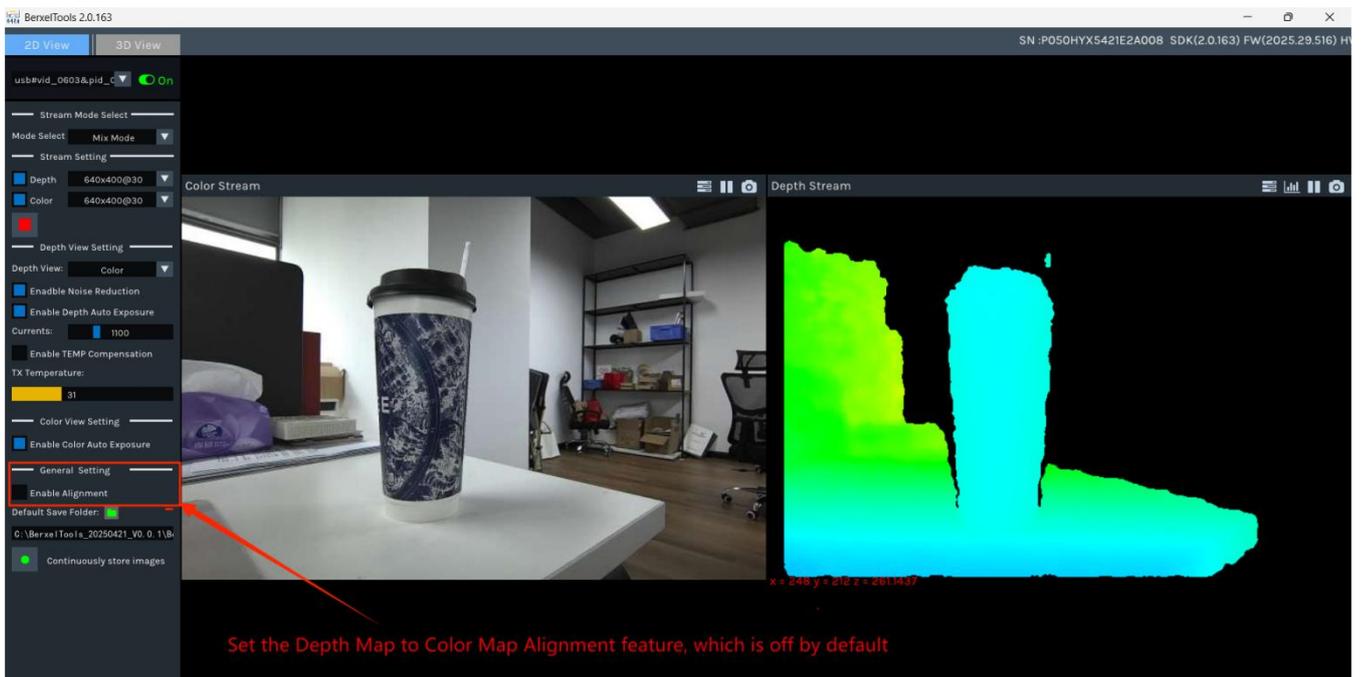
Available options:

- 1) Auto-exposure toggle for color stream (default: enabled). Disable to manually set Color Exposure Time and Color Gain
- 2) Set Exposure Time for color
- 3) Set Gain for color



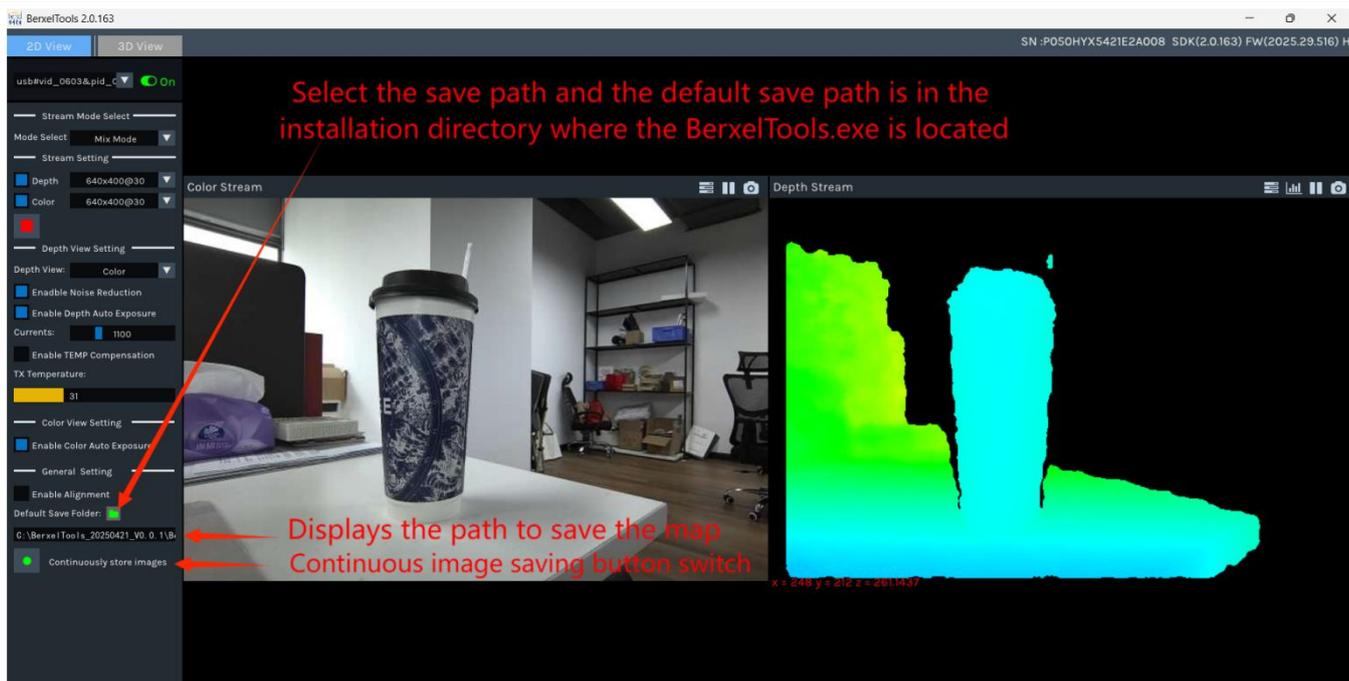
### 2.5. Alignment Settings

Under General Settings, enable Depth-to-Color Pixel Alignment by checking the “Enable Alignment” option. This function aligns the depth map to the color image and is disabled by default.



### 2.6. Image Saving Settings

- 1) Supports both Single Frame Capture and Continuous Saving
- 2) Default save directory: C:\Program Files (x86)\Berxel\BerxelSDK\Samples\bin
- 3) You may customize the save path using the Default Save Folder button in General Settings



### 2.7. 3D Point Cloud Display

Toggle between 2D View and 3D View using the UI buttons. 3D point cloud rendering includes real-time updates and supports point color customization (default: off).

