# Machine Vision Camera SDK Demo (BCB)

User Manual

# User Manual

## About this Manual

This Manual is applicable to Machine Vision Camera SDK Demo (BCB).

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website.

Please use this user manual under the guidance of professionals.

## Legal Disclaimer

REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. OUR COMPANY SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, OUR COMPANY WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

# Contents

# Chapter 1 Overview

This manual mainly introduces the SDK (Software Development Kit) programming methods and procedure of machine vision camera based on BCB language.

One Demo is provided in the C++Builder directory of the SDK directory, which integrates basic functions: enable/disable camera, start/stop acquisition, set/get parameters, store/display pictures, etc.

*Note:*

This demo links to the same dynamic library as Demo based on C language, but links to different static library. According to the configuration, this demo and Demo based on C language use different *.lib* files, but use same APIs.

You can call the same head file as Demo based on C language.

# Chapter 2 BCB Demo

## 2.1 Interface Overview

The BCB Demo interface includes: four control modules (initialization, image acquisition, picture storage and parameter control), one drop-down device list, one image displaying window.
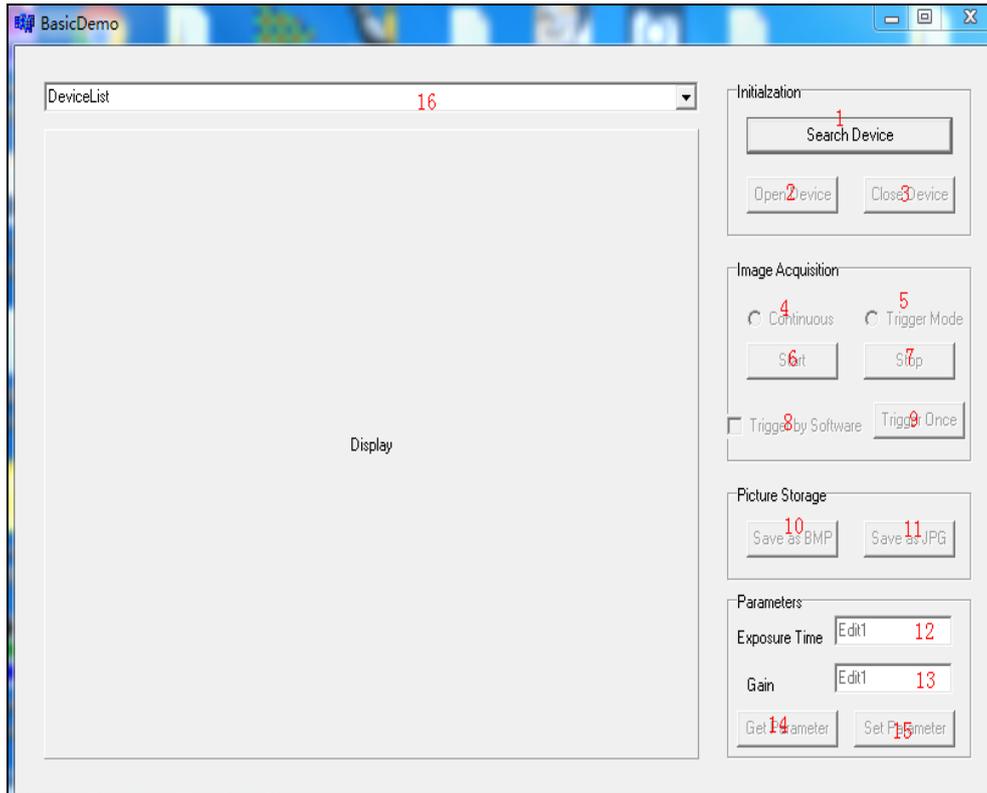


## 2.2 Operation Procedure

*Steps:*

1. Click **Search Device** in the Initialization field to search the online device.
   The online devices will display in the drop-down list of the upper left corner field.
   *Note:* If the user ID is not empty, the devices will be displayed as "device name" + "IP address"; otherwise the devices will be displayed as "device model" + "serial No." +"IP address".
2. Select a device in the drop-down list.
3. Click **Open Device** button in the Initialization field to active the Image Acquisition field.
4. Select image acquisition mode as **Continuous** or **Trigger Mode**.
   *Notes:*
   - The default image acquisition mode is **Continuous**.
   - When **Trigger Mode** is selected, you can check the **Trigger by Software** checkbox.
5. Click **Start** button in the Image Acquisition field to start image acquisition.

The real-time image will display on the left display window if the **Continuous** mode is selected.

You can also click **Trigger Once** button to realize software trigger for once if **Trigger by Software** checkbox is checked in Trigger mode.
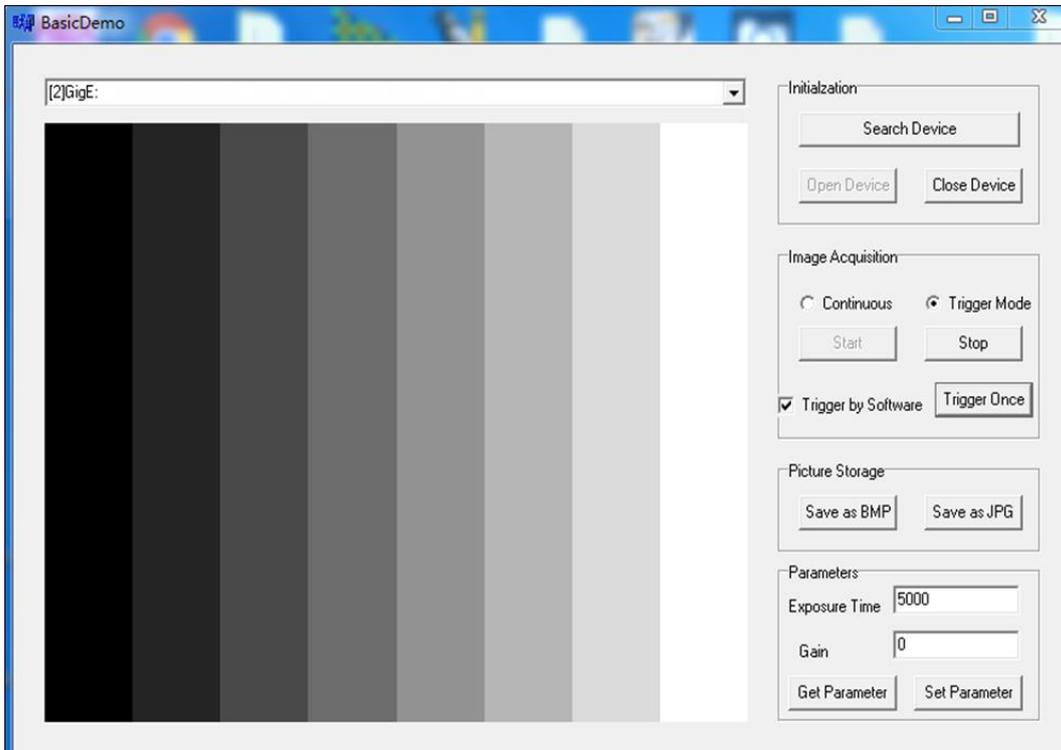


6. Click **Save as BMP** or **Save as JPG** button in the Picture Storage field to save the current image, which is named by *.bmp* or *.jpg*, to the directory of .exe.

7. Input the value of exposure time, gain and frame rate in the Parameter field.

8. Click **Set Parameter** button to save the settings.

9. (Optional) You can click **Get Parameter** button in the Parameter field to refresh the value of exposure time, gain and frame rate.

   *Note:* If exception or error occurred during the procedure, the prompt dialog will pop up.

# 2.3 Programming Guideline

**Steps:**

1. Load DLL.

   The *.dll* file will be put into the directory of environment variables after installing the MVS.

2. Configure project.

   1) Create project.

   2) Configure head file and *.lib* file directory to the project.