Sample Application

for Camera Remote SDK

Instruction Manual

version 1.07.00

Contents

Contents

0. Preparation

■Camera settings and connect to PC(/SBC). (1/5)

[Wired LAN (1/4)]

1. Please set "On" for "PC Remote" and
   "Wired LAN" for "PC Remote Cnct Method"
   in "PC Remote Function" Menu.
2. Please connect the camera and your PC(/SBC)
   directly (or through LAN Hub / LAN Router) with an
   Ethernet cable.

PC Remote Function	
1 2 3	
PC Remote	On
PC Remote Cnct Method	Wired LAN
Pairing	
Connected via wired LAN	
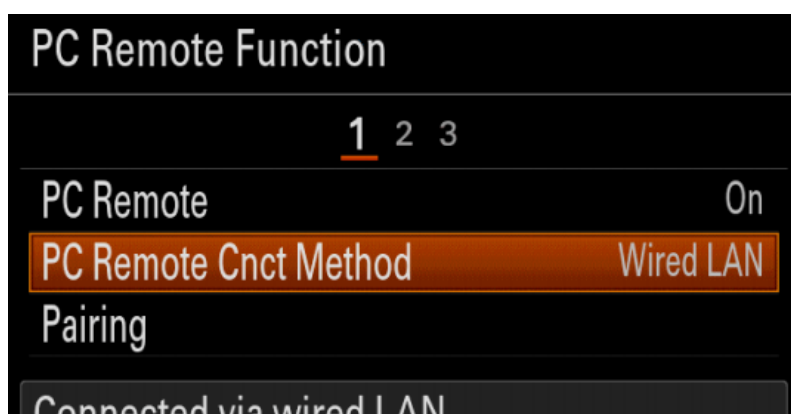
3. If you want to connect the camera and host with a
   fixed IP address, set "Manual" for "IP Address setting"
   in "Wired LAN Setting".
   If you want to use the DHCP service of the router to
   automatically assign an IP address, set "Auto" in "IP
   Address Settings".
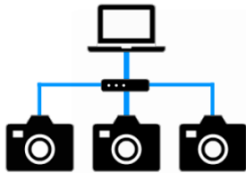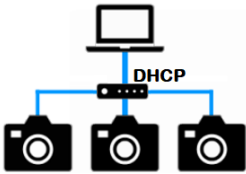
IP Address Setting	
● Auto	
● Manual	

0. Preparation
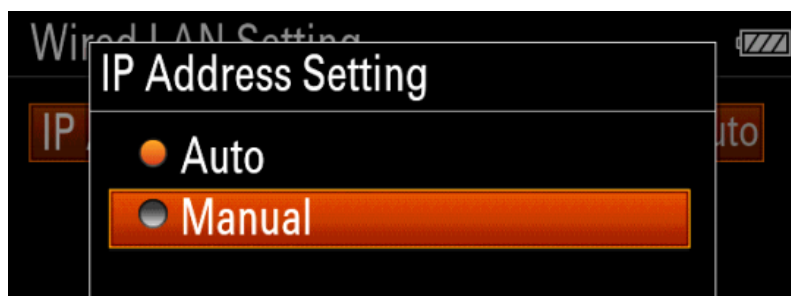
■Camera settings and connect to PC(/SBC). (2/5)

[Wired LAN (2/4)]

●Host setting requirement by the combination of connection type and "IP address setting".

	Direct		Use HUB		Use Router	
IP Address Setting	Auto	Manual	Auto	Manual	Auto	Manual
Windows	*1	-	*1	-	*1	-
macOS	*2					
PC Linux	*3	-	*3	-	*4	-
Jetson Nano	*3	-	*3	-	*4	-
Raspberry Pi 2/4	-					

*1 Enable network discovery and file sharing when using a Windows account without administrative privileges
*2 When Firewall is ON, allow connections by applications in the following way:
Open Firewall Options (System Preferences > Security & Privacy > Firewall > Firewall Options...)
Set "Allow incoming connections" for the applications
*3 Set the network setting to "Link Local Only"
*4 Set the network setting to "Automatic (DHCP)"

0. Preparation

■Camera settings and connect to PC(/SBC). (3/5)

[Wired LAN (3/4)]

4. Please enter IP address, Subnet Mask, Default Gateway, and DNS Settings for "IP address setting".
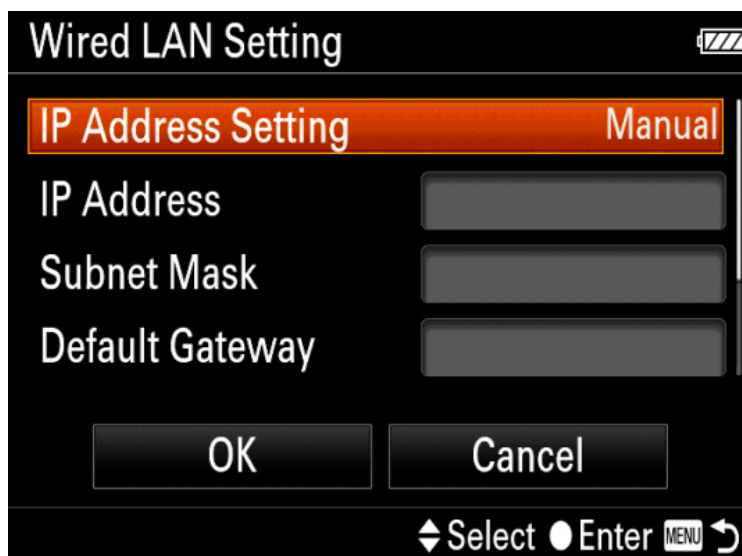
5. Wait for about 30 seconds to connect to the Ethernet cable and for the camera to recognize the network. Then you are ready to connect to the host PC(/SBC).

6. For a Wired LAN connection, you need to execute "Pairing" between the camera and the host PC(/SBC). To perform "Pairing", you need to send a Connect request from the application to the camera and operate the screen on the camera.

   The pairing procedure is explained in "Sample Application Usage → ■ Steps" on p.16.

SONY   Sony Corporation.

0. Preparation

[OS common]

[ILME-FX6]

■ Camera settings and connect to PC(/SBC). (4/5)

[Wired LAN (4/4)]

4. Please enter IP
   address, Subnet
   Mask, Gateway,
   and etc. for
   "Detail Settings".
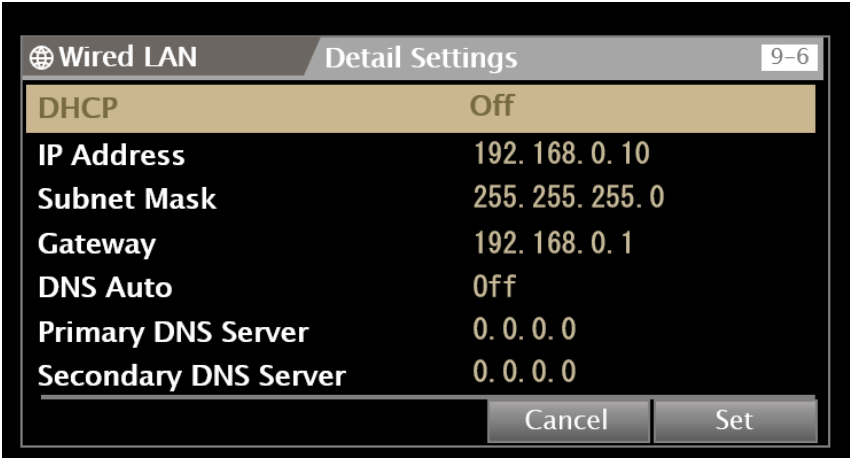
5. Wait for about 30 seconds to connect to the Ethernet
   cable and for the camera to recognize the network.
   Then you are ready to connect to the host PC(/SBC).

6. Please also set up User Name and Input Password
   for "Access Authentication".

SONY   Sony Corporation.
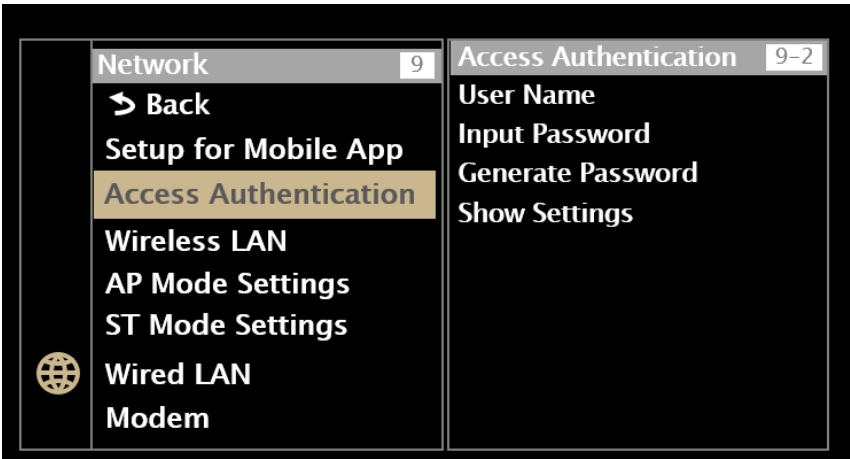
0. Preparation

■Camera settings and connect to PC(/SBC). (5/5)

[USB]

1.Please set "On" for "PC Remote" and
   "USB" for "PC Remote Cnct Method"
   in "PC Remote Function" Menu.
2.Please connect the camera and your PC(/SBC)
   with a USB cable.
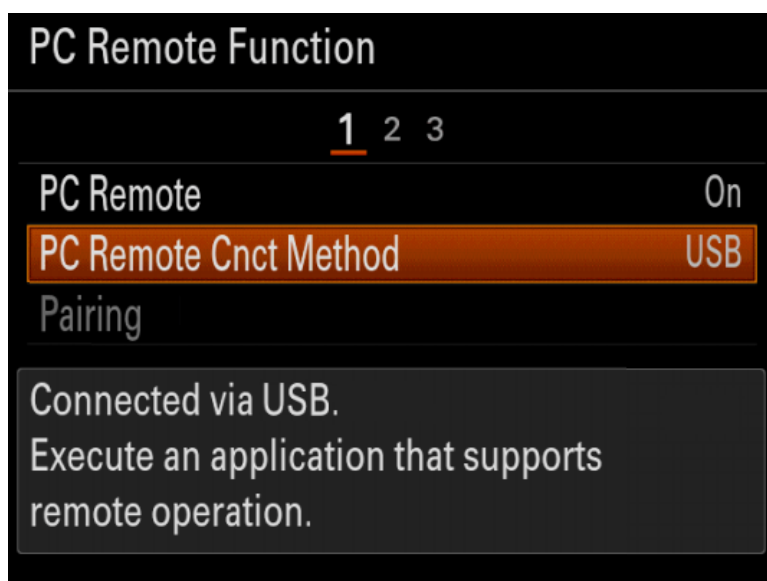
3.Please check "Device Manager"
  if your camera "ILCE-xxx" is
  under "Portable Devices".

[For Windows]

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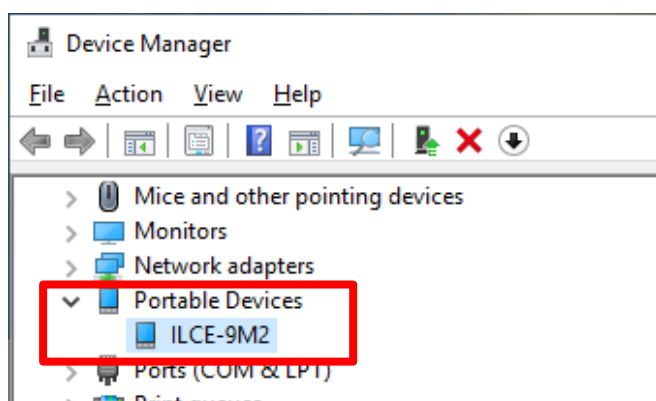
0. Preparation

■Installation of libusbK
1.Please download "libusbK-3.1.0.0-setup.exe"
  and install like below.

 # "libusbK-3.0.7.0" and "libusbK-3.1.0.0" are the version verified
     for SDK. Operation cannot be guaranteed with other versions.

Please select "Next".　　Please select "Next".　　Please select "Next".
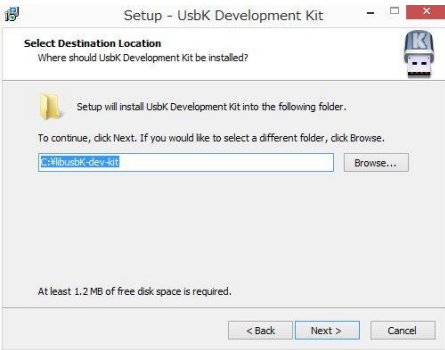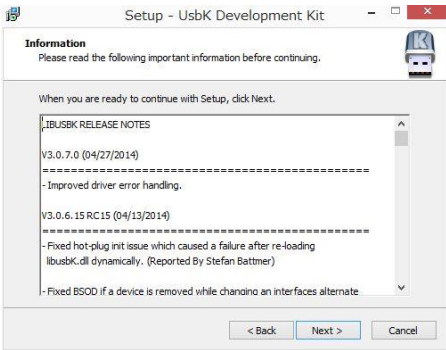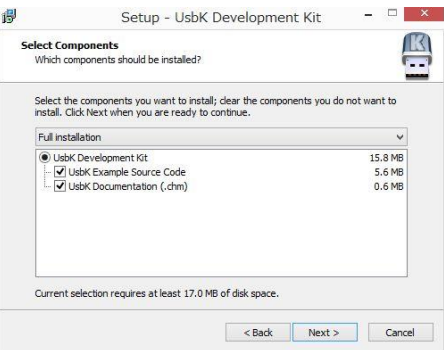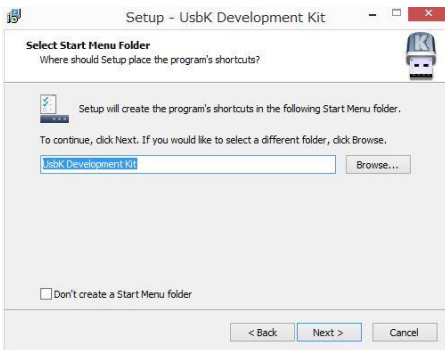
Please select "Next".　　Please select "Next".　　Please select "Create and install…"
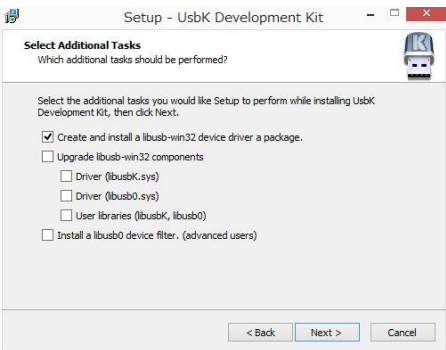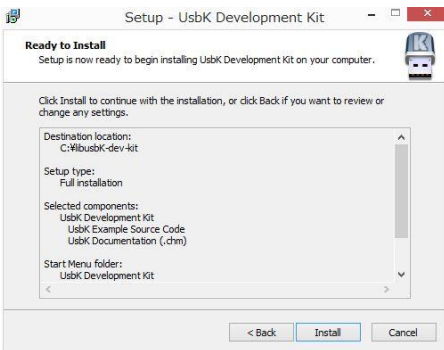
Please select "Next".　　Please select "libusbK v3.0.7.0…".　　Please select "Show All Devices".

0. Preparation

Please select your camera "ILCE-xxx".

Please select "Next".
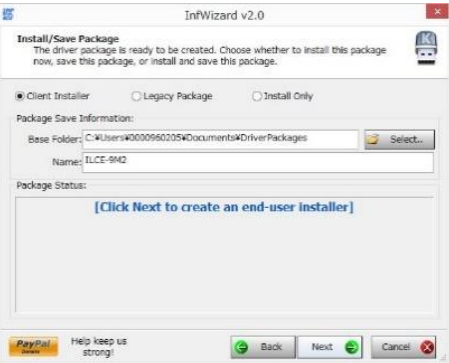
Please select "Next".

Please select "Finish & Install ...".

Please select "Next".

Please select "Finish".
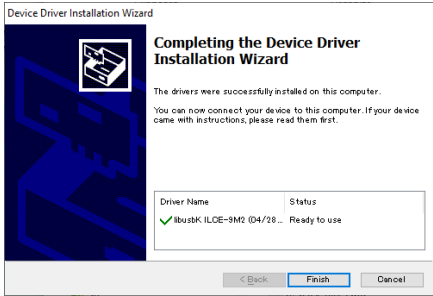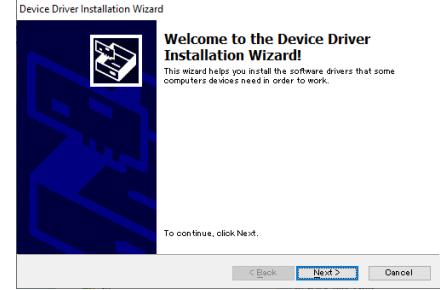
3. Please check "Device Manager" if your camera "ILCE-xxx" is under "libusbK Usb Devices".

4. If you come to this step, you are ready to develop your application by using Camera Remote SDK.

SONY   Sony Corporation.
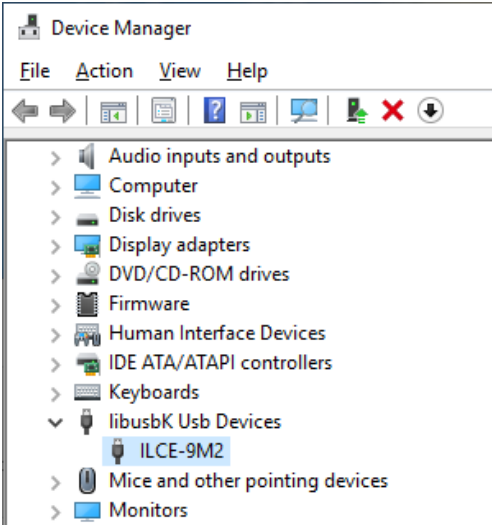
0. Preparation

■ Installation of some necessary packages.

1. Install some necessary packages below.

```
$ sudo apt install autoconf libtool libudev-dev gcc g++ make cmake unzip   libxml2-dev
```

> # Not confirmed to work with anything other than cmake 3.17.3

■ USB setting

1. Change USB bulk setting

[Raspberry Pi OS]

Add the command below at the end of the file "/etc/rc.local" before "exit 0" to modify Bulk Transfer Rate configuration file.

```
Add this command:
sudo sh -c 'echo 150 > /sys/module/usbcore/parameters/usbfs_memory_mb'
```

[Ubuntu (for Embedded)]

Change "APPEND ${cbootargs} quiet" to the command below in the file "/boot/extlinux/extlinux.conf".

```
Before:
APPEND ${cbootargs} quiet
After:
APPEND ${cbootargs} usbcore.usbfs_memory_mb=150 usbcore.autosuspend=-1
```

[Ubuntu (for x86)]

Change "quiet splash" to the command below in the file "/etc/default/grub" and update grub.

```
Before:
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
After:
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash usbcore.usbfs_memory_mb=150"
```

```
sudo update-grub
```

2. Reboot and check the configuration

Save & Close the file and reboot.

Make sure that "150" is written in the configuration file.

"/sys/module/usbcore/parameters/usbfs_memory_mb".

```
$ cat /sys/module/usbcore/parameters/usbfs_memory_mb
150
```

1. Sample Application Build

■Conditions
1. "Visual Studio 2019 / 2017" are available
2. Windows SDK version 10.0 (and above)
3. Both Debug build / Release build are available
4. CMake 3.17.3 (and above) is needed.
   # Not confirmed to work with anything other than CMake 3.17.3

■Steps
1.Unzip the package file downloaded.
2.Make build folder and execute cmake.

if Visual Studio 2017:	if Visual Studio 2019:
> mkdir build	> mkdir build
> cd build	> cd build
> cmake -A "x64" -T "v141,host=x64" ..	> cmake -A "x64" -T "v142,host=x64" ..

Reflected in the green frame in the figure below.

3.Open the solution file "..¥build¥RemoteCli.sln"
4.Build.
5.If an error requires "10.0.10240.0"
   for Windows SDK version, please change
   the setting in the project property
   to the version you have in your environment.
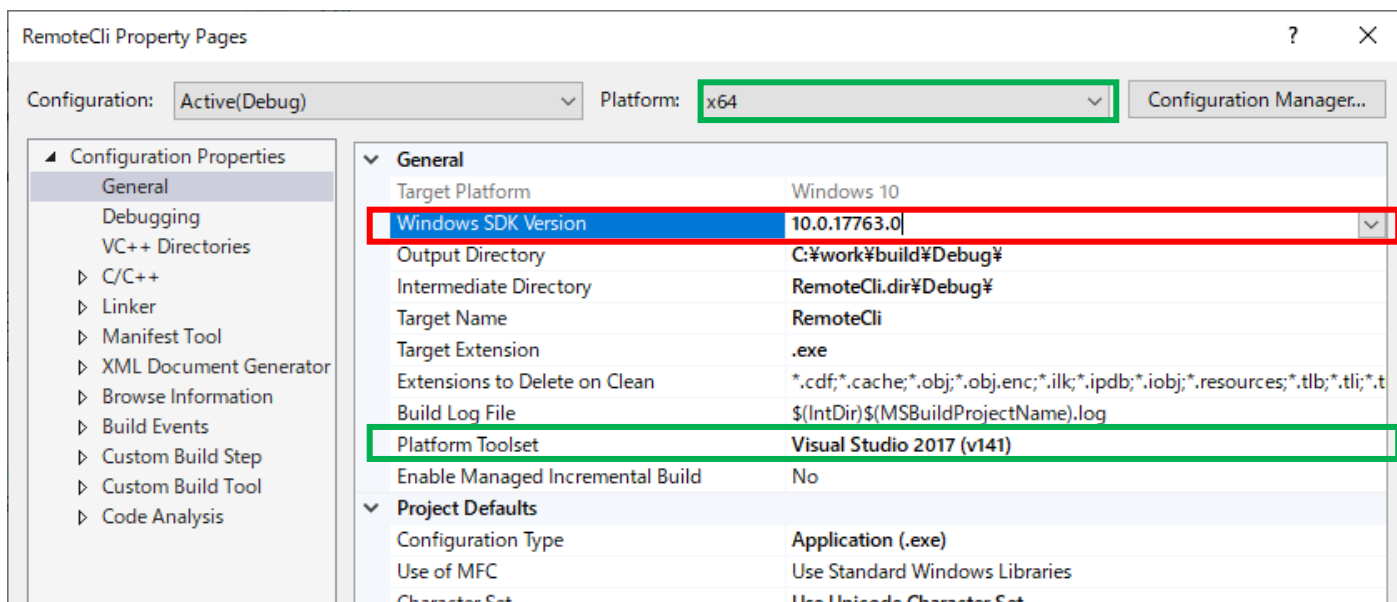
1. Sample Application Build

■ Conditions
See "<u>Installation of some necessary packages.</u>" on p.11

■ Steps

1. Copy the package file downloaded to a work directory.
   (such as "/home/user01/work/").

2. Unzip the file.

```
$ cd /home/user01/work
$ unzip [the package file]
```

3. (Update the SDK related libraries to the latest version if necessary.)
   external/crsdk/libCr_Core.so
   external/crsdk/CrAdapter/libCr_PTP_IP.so
   external/crsdk/CrAdapter/libCr_PTP_USB.so
   external/crsdk/CrAdapter/libssh2.so
   external/crsdk/CrAdapter/libusb-1.0.so

4. Make a build directory and execute cmake build.

```
$ cd /home/user01/work/[Sample Application unzipped directory]
$ mkdir build
$ cd build
$ cmake -DCMAKE_BUILD_TYPE=Release ..
$ cmake --build .
```

5. Execute Sample Application.

```
$ ./RemoteCli
```

(If you use Sample Application without building in your environment, you may need "chmod".)

```
$ chmod +x RemoteCli
```

1. Sample Application Build

■ Conditions

1. "Xcode 11.5 / 13.2" are available.
 # Xcode depends on the OS version, please follow the operating
    requirements.
2. CMake 3.17.3 (and above) is needed.
 # Not confirmed to work with anything other than CMake 3.17.3

■ Steps (1/2)

1. Copy the package file downloaded to a work directory.
       (such as "/Users/user01/work/").
2. Unzip the file.

```
$ cd /Users/user01/work
$ unzip [the package file]
```

3. (Update the SDK related libraries in "external/crsdk" to the
    latest version if necessary.)
       libCr_Core.dylib
       CrAdapter/libCr_PTP_IP.dylib
       CrAdapter/libCr_PTP_USB.dylib
       CrAdapter/libssh2.dylib
       CrAdapter/libusb-1.0.0.dylib

4. Make a build directory and execute cmake build.

```
$ cd /Users/user01/work/[Sample Application unzipped directory]
$ mkdir build
$ cd build
$ cmake –GXcode ..
```

5. Launch xcode with "RemoteCli.xcodeproj"

```
$ open RemoteCli.xcodeproj
```

1. Sample Application Build

■ Steps (2/2)

6. Select "Build Configuration" to "Release" from the menu "Product" – "Scheme" – "Edit Scheme ..." and close the menu.
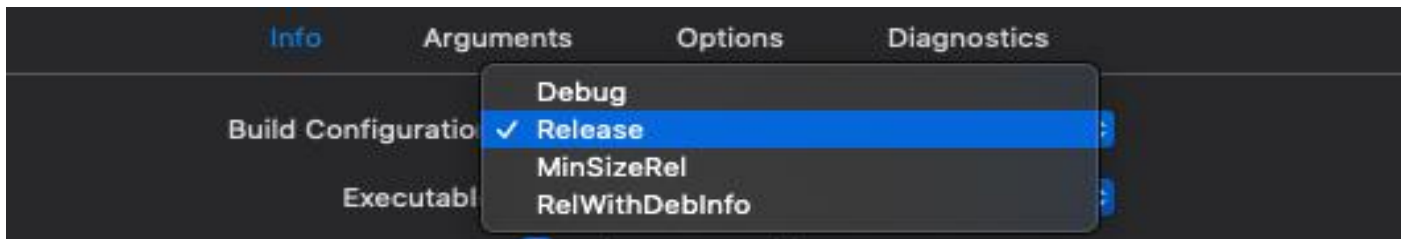
7. Build Sample Application from the menu "Product" – "Build".
8. Execute Sample Application.

```
$ cd Release
$ ./RemoteCli
```

2. Sample Application Usage

The availability of each menu setting and execution depends on the status of the camera. For more information, please refer to the camera's menu status or help guide.

■Steps(1/2)
1. Firstly, please connect camera to your PC(/SBC).
   (As same settings in Page 3.)
2. Please find the RemoteCli Sample Application file under the folder "..¥build¥Release".
3. Please execute the file.
4. Console window will show up like below.

```
Initialize Remote SDK...
Working directory: "c:¥¥work"
Remote SDK successfully initialized.

Enumerate connected camera devices...
Camera enumeration successful. 2 detected.

[1] ILCE-7RM4 (0000000000DF)
[2] ILCE-7RM4 (00000000010D)
Connect to camera with input number...
input>
```

5. If you connect the camera via a wired LAN, "Pairing" is required for the first time.

   Select "Pairing" in "PC Remote Function" to display the pairing standby screen.

   PC Remote Function
   1 2 3
   PC Remote
   PC Remote Cnct Method
   Pairing

   Pairing   LAN
   Perform pairing on the connected device.
   Device Name ILCE-9M2
   MAC Address XX:XX:XX:XX:XX:XX
   Cancel
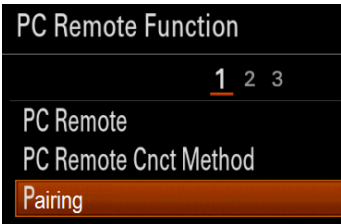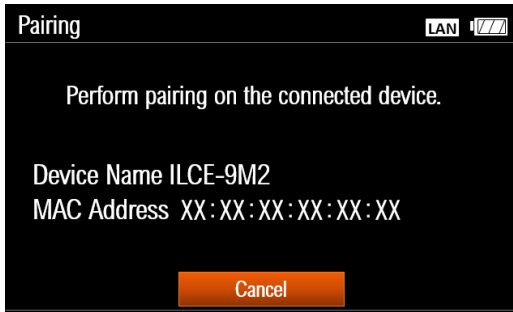
■ Steps(2/2)

6.Please choose the number and enter.
If you connect the camera via a wired LAN and are waiting for "Pairing", the standby screen will change to the next confirmation. Press "OK" to complete the pairing.

After "Pairing" is complete, turn off the camera, wait about 20 seconds, and then turn it on.

Pairing   LAN

Allow connection from the device?

[Host Device Name]

OK

Cancel
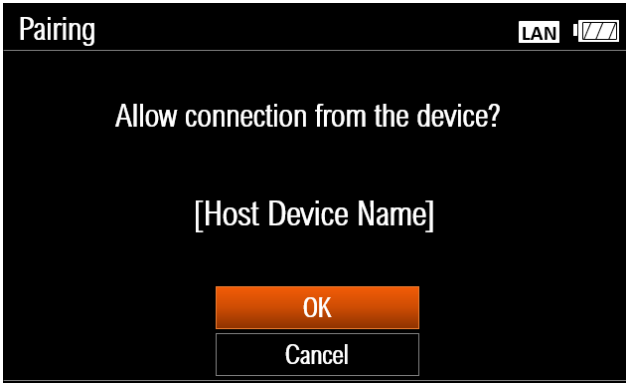
When you restart the camera, the pairing information will be saved in the camera.

Allow at least 10 seconds before turning the power on again. If you restart your camera before saving, you will need to perform "Pairing" again.

＃The pairing information saved in the camera will be discarded when the camera settings are reset. After resetting, perform "Pairing" again.

#You can also connect without "Pairing".

If you set "Connect without Pairing" to "Enable", unintended third parties may access the camera. Sony is not liable for any problems or damage caused by setting "Connect without Pairing" to "Enable".

PC Remote Function

1 2 3

PC Save Image Size   Original

Connect without Pairing   Enable

2. Sample Application Usage

■Top Menu

1.Console window shows menu like below.

2.Please choose a number/alphabet and enter.

#If you choose "x" and enter, the application closes.

#Not all models can connect in "Contents Transfer Mode". The corresponding model name can be found in the API specification.

```
<< TOP-MENU >>
What would you like to do? Enter the corresponding number.
(1) Connect (Remote Control Mode)
(2) Connect (Contents Transfer Mode)
(x) Exit
input>
```

3. On success to connect,
    you will take the message like below.

```
input> Connected to ILCE-7RM4 (0000000000DF)
```

2. Sample Application Usage

- SSH authentication connection
1. If the camera supports SSH authentication, the
    fingerprint obtained from the camera is displayed.
    If the fingerprint is correct, "y" and enter.
#If you choose "n" and enter, for back to the menu.

```
fingerprint :
██████████████████████████████
Are you sure you want to continue connecting ? (y/n) >
y
Please SSH password >
```

2. Next, enter the password
In the sample application, the User Name is fixed to
"admin". Modify the sample application as needed.

3. On success to connect,
    you will take the message like below.

```
input> Connected to ILME-FX6 (2█████████7)
```

2. Sample Application Usage

[OS common]

■ Remote Menu 1

1. When connected in "Remote Control Mode", the following menu is displayed in the console window.
2. Please choose a number/alphabet and enter.

```
Remote Control Mode
<< REMOTE-MENU 1 >>
What would you like to do? Enter the corresponding number.
(s) Status display and camera switching
(0) Disconnect and return to the top menu
(1) Shutter Release
(2) Shutter Half Release in AF mode
(3) Shutter Half and Full Release in AF mode
(4) Continuous Shooting
(5) Aperture
(6) ISO
(7) Shutter Speed
(8) Live View
(9) Live View Image Quality
(a) Position Key Setting
(b) Exposure Program Mode
(c) Still Capture Mode(Drive mode)
(d) Focus Mode
(e) Focus Area
(11) FELock
(12) AWBLock
(13) AF Area Position(x,y)
(14) Selected MediaFormat
(15) Movie Rec Button
(16) White Balance
(17) Custom WB
(18) Zoom Operation
(19) Zoom Speed Type
(20) Preset Focus
(21) REMOTE-MENU 2
input> Connected to ILCE-1 (0000000001B5)
_
```

2. Sample Application Usage

■ Status display and new camera connection(1/2)
1. Please input "s" and enter.
2. Please input "0" and enter.
3. Please choose the number and enter.

```
input> s

Status display and camera switching.
number - connected - model - id
* 1    - true  - ILCE-7RM4 - 0000000000DF          → see table(1)

Selected camera number = [1]

Choose a number :
[-1] Cancel input
[0]  Create new CameraDevice
[1]  Switch cameras for controls

input> 0
[-1] Cancel input
[1] ILCE-7RM4 (0000000000DF) *                       → see table(2)
[2] ILCE-7RM4 (00000000010D)

idx input> 2
```

4. Please input "s" and enter,
   to check the connection status.
5. Please input "-1" and enter,
   for back to the menu.

```
input> s

Status display and camera switching.
number - connected - model - id
  1    - true  - ILCE-7RM4 - 0000000000DF          → see table(1)
* 2    - true  - ILCE-7RM4 - 00000000010D

Selected camera number = [2]

Choose a number :
[-1] Cancel input
[0]  Create new CameraDevice
[1]  Switch cameras for controls

input>
```

2. Sample Application Usage

■ Status display and new camera connection(2/2)

table(1) List of CameraDevice classes generated so far

Column	Explanation	Detail
number	Numbers automatically assigned by the app	1〜 Only one controllable camera is marked with an asterisk.
connected	Connection status	true : connected or reconnecting
		false : disconnected
model	Model name	string
id	MAC Address or USB serial number	string

\# One CameraDevice class is generated for one camera.

\# The camera is Controlled through the generated CameraDevice class.

\#This app owns multiple CameraDevice classes and can control multiple cameras, but only one camera can be controlled at a time. If you want to switch from one camera to another to control, follow the steps on the next page.

table(2) Return value of the EnumCameraObjects() function
Format : [idx] + model + (id) + mark

Item	Explanation	Detail
idx	Camera list number	The order of the camera list obtained by the EnumCameraObjects () function
model	Model name	string
id	MAC Address or USB serial number	string
mark	CameraDevice class generation status	* : Already Generated
		Nothing : Not generated yet

2. Sample Application Usage

■Status display and camera switching
1.Please input "s" and enter.
2.Please input "1" and enter.
3.Please choose the number and enter.

```
input> s

Status display and camera switching.
number - connected - model - id
  1     - true  - ILCE-7RM4 - 0000000000DF
* 2     - true  - ILCE-7RM4 - 00000000010D

Selected camera number = [2]

Choose a number :
[-1] Cancel input
[0]  Create new CameraDevice
[1]  Switch cameras for controls

input> 1

number input> 1
```

4.Please input "s" and enter,
    to check the connection status.
5. Please input "-1" and enter,
    for back to the menu.

```
input> s

Status display and camera switching.
number - connected - model - id
* 1     - true  - ILCE-7RM4 - 0000000000DF
  2     - true  - ILCE-7RM4 - 00000000010D

Selected camera number = [1]

Choose a number :
[-1] Cancel input
[0]  Create new CameraDevice
[1]  Switch cameras for controls

input>
```

2. Sample Application Usage

■ Shutter Release
1. Please input "1" and enter.
2. Camera takes a photo and stores in the folder set by "set_save_info()" in the source code.

```
input> 1

Capture image...
Shutter down
Shutter up
```

\# On success to take a photo,
 you will take the message like below.

```
input> Complete download. File: c:¥work¥DSC00003.JPG
```

\#If you cannot take a photo,
 please try again after changing
 mode dial to "M" and focus mode dial to "MF".

focus mode dial "MF"

mode dial "M"

2. Sample Application Usage

■ Shutter Half Release in AF mode
1. Please input "2" and enter.
2. Please input "y" and enter.
3. Camera only makes AF control with half release.

```
input> 2

Is the focus mode set to AF? (y/n): y
S1 shooting...
Shutter Halfpress down
Shutter Halfpress up
```

■ Shutter Half and Full Release in AF mode
1. Please input "3" and enter.
2. Please input "y" and enter.
3. Camera makes AF control with half release
   and Camera takes photo and stores in the folder
   set by "set_save_info()" in the source code.
#If you cannot take a photo, please try again after
changing mode dial to "M" and focus mode dial to "AF-S".

```
input> 3

Is the focus mode set to AF? (y/n): y
S1 shooting...
Shutter Halfpress down
Shutter down
Shutter up

Shutter Halfpress up

What would you like to do? Enter the corresponding number.
(s) Status display and camera switching
(0) Connect / Disconnect
```

∫

```
(17) Custom WB
(18) Zoom Operation
(x) Exit
input> Complete download. File: c:\work\DSC01569.JPG
```

2. Sample Application Usage

■Continuous Shooting
1. Please input "4" and enter.
2. Camera takes several photos and stores in the folder set by "set_save_info()" in the source code.

#If you cannot take a photo, please try again after changing mode dial to "M" and focus mode dial to "MF".

```
input> 4

Capture image...
Continuous Shooting
Priority Key setting SUCCESS
Still Capture Mode setting SUCCESS
Shutter down
Shutter up

What would you like to do? Enter the corresponding number.
(s) Status display and camera switching
(0) Connect / Disconnect
```

```
(17) Custom WB
(18) Zoom Operation
(x) Exit
input>
Complete download. File: c:¥work¥DSC01570.JPG
Complete download. File: c:¥work¥DSC01571.JPG
Complete download. File: c:¥work¥DSC01572.JPG
Complete download. File: c:¥work¥DSC01573.JPG
```

2. Sample Application Usage

■ Display and change Aperture

1. Please input "5" and enter.
2. Console window shows current F number value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
input> 5

F5.6
Would you like to set a new Aperture value? (y/n): y
Choose a number set a new Aperture value:
[-1] Cancel input
[0] F3.5
[1] F4
[2] F4.5
[3] F5
[4] F5.6
[5] F6.3
[6] F7.1
[7] F8
[8] F9
[9] F10
[10] F11
[11] F13
[12] F14
[13] F16
[14] F18
[15] F20
[16] F22
[-1] Cancel input
Choose a number set a new Aperture value:
input>
```

2. Sample Application Usage

- ■Display and change ISO
- ■Display and change Shutter Speed
- ■Display and change Position Key Setting

Basically same steps with the Aperture case.

```
input> 6

ISO Mode: Normal
ISO AUTO
Would you like to set a new ISO value? (y/n): y
Choose a number set a new ISO value:
[-1] Cancel input
[0] ISO AUTO
[1] ISO 50
```

```
[33] ISO 80,000
[34] ISO 102,400
[-1] Cancel input
Choose a number set a new ISO value:
input>
```

```
input> 7

Shutter speed: 1/250
Would you like to set a new Shutter Speed value? (y/n): y
Choose a number set a new Shutter Speed value:
[-1] Cancel input
[0] 30"
[1] 25"
```

```
[53] 1/6,400
[54] 1/8,000
[-1] Cancel input
Choose a number set a new Shutter Speed value:
input>
```

```
input> a

Position Key Setting: PC Remote Setting
Would you like to set a new Position Key Setting value? (y/n): y
Choose a number set a new Position Key Setting value:
[-1] Cancel input
[0] Camera Position
[1] PC Remote Setting
[-1] Cancel input
Choose a number set a new Position Key Setting value:
input>
```

2. Sample Application Usage

■Receive Live View image
1. Please input "8" and enter.
2. Console window shows "SUCCESS"
3. You can find the file "LiveView000000.JPG" in the folder set by "set_save_info()" in the source code.

```
input> 8

GetLiveView...
"c:¥¥work¥¥LiveView000000.JPG"
GetLiveView SUCCESS
```

■Display and change Live View Image Quality
1. Please input "9" and enter.
2. Console window shows current Live View Image Quality value.
3. Then if you choose "y",
     console window shows candidate values.
4. Please choose the number and enter.

```
input> 9

Live View Image Quality: High
Would you like to set a new Live View Image Quality value? (y/n): y
Choose a number set a new Live View Image Quality value:
[-1] Cancel input
[0] Low
[1] High
[-1] Cancel input
Choose a number set a new Live View Image Quality value:
input>
```

2. Sample Application Usage

■Display and change Exposure Program Mode
0.Please change "Position Key Setting" to
  "PC Remote Setting" beforehand.
1.Please input "b" and enter.
2.Console window shows
  current Exposure Program Mode value.
3.Then if you choose "y",
     console window shows candidate values.
4.Please choose the number and enter.

```
input> b

Exposure Program Mode: M_Manual
Would you like to set a new Exposure Program Mode value? (y/n): y
Choose a number set a new Exposure Program Mode value:
[-1] Cancel input
[0] P_Auto
[1] A_AperturePriority
[2] S_ShutterSpeedPriority
[3] M_Manual
[4] Movie_P
[5] Movie_A
[6] Movie_S
[7] Movie_M
[8] Movie_SQMotion_P
[9] Movie_SQMotion_A
[10] Movie_SQMotion_S
[11] Movie_SQMotion_M
[12] Auto
[-1] Cancel input
Choose a number set a new Exposure Program Mode value:
input>
```

2. Sample Application Usage

■Display and change Still Capture Mode(Drive Mode)
0.Please change "Position Key Setting" to
　"PC Remote Setting" beforehand.
1.Please input "c" and enter.
2.Console window shows
　current Still Capture Mode value.
3.Then if you choose "y",
　console window shows candidate values.
4.Please choose the number and enter.

```
input> c

Still Capture Mode: CrDrive_Continuous_Hi
Would you like to set a new Still Capture Mode value? (y/n): y
Choose a number set a new Still Capture Mode value:
[-1] Cancel input
[0] CrDrive_Single
[1] CrDrive_Continuous_Lo
```

〜

```
[48] CrDrive_DRO_Bracket_Hi
[49] CrDrive_DRO_Bracket_Lo
[-1] Cancel input
Choose a number set a new Still Capture Mode value:
input> _
```

2. Sample Application Usage

■ Display and change Focus Mode
1. Please input "d" and enter.
2. Console window shows current Focus Mode value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
input> d

Focus Mode: MF
Would you like to set a new Focus Mode value? (y/n): y
Choose a number set a new Focus Mode value:
[-1] Cancel input
[0] AF_S
[1] AF_A
[2] AF_C
[3] DMF
[4] MF
[-1] Cancel input
Choose a number set a new Focus Mode value:
input>
```

2. Sample Application Usage

■ Display and change Focus Area
1. Please input "e" and enter.
2. Console window shows current Focus Area value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
input> e

Focus Area: Flexible Spot S
Would you like to set a new Focus Area value? (y/n): y
Choose a number set a new Focus Area value:
[-1] Cancel input
[0] Wide
[1] Zone
[2] Center
[3] Flexible Spot S
[4] Flexible Spot M
[5] Flexible Spot L
[6] Expand Flexible Spot
[-1] Cancel input
Choose a number set a new Focus Area value:
input>
```

SONY   Sony Corporation.

2. Sample Application Usage

■FEL lock
1. Please input "11" and enter.
2. Please check if you attached a flash device on your camera.
3. Then if you choose "y", console window shows candidate values.
4. Please choose the number and enter.

```
input> 11

Flash device required.
Would you like to execute Unlock or Lock? (y/n): y

Choose a number :
[-1] Cancel input
[1] Unlock
[2] Lock
[-1] Cancel input
Choose a number :

input>
```

2. Sample Application Usage

■AWB lock
1.Please input "12" and enter.
2.Then if you choose "y",
　console window shows candidate values.
3.Please choose the number and enter.

```
input> 12

Would you like to execute Unlock or Lock? (y/n): y

Choose a number :
[-1] Cancel input
[1] Unlock
[2] Lock
[-1] Cancel input
Choose a number :

input>
```

■ AF Area Position(x,y)

1. Please input "13" and enter.
2. Sample Application will change focus area setting
   to "Flexible Spot S" automatically.
3. Then if you choose "y",
   console window ask you to input x, y position
   for the center of the focus frame.
4. Please input values.
   (It is recommended to input values at the center of
camera view, such as 320, 240, for trial purpose.)

```
input> 13

Set FocusArea to Flexible_Spot_S
FocusArea SUCCESS

FocusFrameInfo no[1] pri[2] w[38] h[38] Deno[640-480] Nume[320-240]

Change position ? (y/n):y

Set the value of X (decimal)
Regarding details of usage, please check API doc.

input X> 300
input X = 300

Set the value of Y (decimal)

input Y> 200
input Y = 200

input X_Y = 0x1,2c0,0c8
```

■ Selected Media Format
1. Please input "14" and enter.
2. Please check if "Full Format Enable Status" and/or
   "Quick Format Enable Status" is Enabled.
   # "Quick Format Enable Status" may not be
      displayed for some models. In that case,
      the format type selection is not displayed.
3. Then if you choose "y",
   console window ask you to select a format type.
4. Please choose a number and enter.

```
input> 14

Media SLOT1 Full Format Enable Status: Enabled
Media SLOT2 Full Format Enable Status: Enabled
Media SLOT1 Quick Format Enable Status: Enabled
Media SLOT2 Quick Format Enable Status: Enabled

Would you like to format the media? (y/n):
y
Choose a format type number :
[-1] Cancel input
[1] Full Format
[2] Quick Format

input>
```

5. Next, console window ask you to select a slot.
   please choose a number and enter.
6. Select "y" and enter, then format will start.

```
Choose a number Which media do you want to format ?
[-1] Cancel input
[1] SLOT1
[2] SLOT2

input> 1

All data will be deleted.Is it OK ? (y/n)
y

Formatting .....
FormatProgressRate:67
Format completed
```

2. Sample Application Usage

■ Movie Rec Button

1. Please input "15" and enter.
2. Then if you choose "y",
   console window shows candidate values.
3. Please choose "[2] Down"
   to start movie rec(make movie rec button down).

```
input> 15


Operate the movie recording button ? (y/n):y
Choose a number :
[-1] Cancel input
[1] Up
[2] Down
[-1] Cancel input
Choose a number :

input>
```

2. Sample Application Usage

■White Balance
1. Please input "16" and enter.
2. Console window shows
   current White Balance setting.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose a number and enter.

```
input> 16

White Balance: AWB

Would you like to set a new White Balance value? (y/n): y

Choose a number set a new White Balance value:
[-1] Cancel input
[0] AWB
[1] Daylight
[2] Shadow
[3] Cloudy
[4] Tungsten
[5] Fluorescent_WarmWhite
[6] Fluorescent_CoolWhite
[7] Fluorescent_DayWhite
[8] Fluorescent_Daylight
[9] Flush
[10] Underwater_Auto
[11] ColorTemp
[12] Custom_1
[13] Custom_2
[14] Custom_3
[-1] Cancel input

Choose a number set a new White Balance value:

input>
```

2. Sample Application Usage

■Custom WB (1/2)
1. Please input "17" and enter.
2. Console window shows
   current Custom WB related values
   and set up some settings for Custom WB.
3. Then if you choose "y",
   console window shows candidate values.

```
input> 17

CustomWB Capture Standby Operation: Disable
CustomWB Capture Standby CancelOperation: Disable
CustomWB Capture Operation: Disable
CustomWB Capture Execution State : Invalid

Set camera to PC remotePriority Key setting SUCCESS
Position Key Setting: PC Remote Setting

Set the Exposure Program mode to P modeExposure Program mode SUCCESS
Exposure Program Mode: M_Manual

Set the White Balance to Custom1
White Balance SUCCESS
White Balance: Custom_1

Set custom WB capture standby

CustomWB Capture Standby Operation: Disable
CustomWB Capture Standby CancelOperation: Enable
CustomWB Capture Operation: Enabled
CustomWB Capture Execution State : Standby

Set custom WB capture
Change position ? (y/n):y
```

2. Sample Application Usage

■ Custom WB (2/2)

4. Please input values.

　(It is recommended to input values at the center of camera view, such as 300, 200, for trial purpose.)

```
Set the value of X (decimal)
Regarding details of usage, please check API doc.

input X> 300
input X = 300

Set the value of Y (decimal)

input Y> 200
input Y = 200

input X_Y = 0x1,2c0,0c8

Set custom WB capture standby cancel. Please enter something.
```

2. Sample Application Usage

■Zoom Operation

Please note that Power Zoom Lens is needed to be attached to the camera body for this operation.

1.Please input "18" and enter.

2.Console window shows current Zoom related values.

3.Then if you choose "y",
   console window shows candidate values.

```
input> 18

Zoom Operation Status: Enable
Zoom Setting Type: OpticalZoom
Zoom Type Status: OpticalZoom
Zoom Speed Range: -1 to 1
Zoom Speed Type: Invalid
Zoom Bar Information: 0x1,000,000

Operate the zoom ? (y/n):y

Choose a number :
[-1] Cancel input
[0] Stop
[1] Wide
[2] Tele
[-1] Cancel input
Choose a number :
```

For models that can change the zoom type,
the following menu is displayed.

```
Zoom Operation Status: Enable
Zoom Setting Type: OpticalZoom
Zoom Type Status: OpticalZoom
Zoom Speed Range: -8 to 8
Zoom Speed Type: Variable
Zoom Bar Information: 0x1,000,000

Operate the zoom ? (y/n):y

Set the value of zoom speed (Out-of-range value to Cancel) :
```

4.Please choose a number for zoom operation
   or input zoom range value.

2. Sample Application Usage

■Zoom Speed Type
Please note that Power Zoom Lens is needed to be attached to the camera body for this operation.
1. Please input "19" and enter.
2. Console window shows
   current Zoom Speed Type setting.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose a number and enter.

```
input> 19

Zoom Speed Type: Variable
Would you like to set a new zoom speed type value? (y/n): y
Choose a number set a new zoom speed type value:
[-1] Cancel input
[0] Variable
[1] Fixed
[-1] Cancel input
Choose a number set a new zoom speed type value:
input>
```

2. Sample Application Usage [OS common]

■ Preset Focus

Please note that Power Zoom Lens is needed to be attached to the camera body for this operation.
1. Please input "20" and enter.
2. Console window shows
   slot numbers and operation(DeviceProperty)
   names that can be selected.
3. Please choose the operation number and enter.

```
input> 20

Save Zoom and Focus Position Enable Slot:
0
1
2
3
4
Load Zoom and Focus Position Enable Slot:
0
1
2
3
4
Set the value of operation :
[-1] Cancel input
[1] Save Zoom and Focus Position
[2] Load Zoom and Focus Position
[-1] Cancel input
Choose a number :

input> ▮
```

4. Then choose the slot number and enter.
   # Above example: numbers from 0 to 4

```
Set the value of Slot number :

input> ▮
```

SONY   Sony Corporation.

■ Remote Menu 2
The menu of new functions is grouped in "REMOTE-MENU2".

1. Enter "21" in REMOTE-MENU1 to display REMOTE-MENU2.

```
(19) Zoom Speed Type
(20) Preset Focus
(21) REMOTE-MENU 2
input>
```

```
<< REMOTE-MENU 2 >>
What would you like to do? Enter the corresponding number.
(0) Return to REMOTE-MENU 1
(1) Request Display String List
(2) Get Display String Type
(3) Get Display String List
(4) Iris Mode Setting
(5) Shutter Mode Setting
(6) ISO Current Sensitivity
(7) Exposure Control Type
(8) Gain Control Setting
(9) Gain Base Sensitivity
(10) Gain Base ISO Sensitivity
(11) Exposure Index
(12) BaseLook Value
(13) Monitor LUT Setting
(14) Playback Media
(15) Download the camera setting file to PC
(16) Upload the camera setting file to Camera
(17) Camera Setting Reset
(18) APS-C/FULL setting
(19) Recording Setting
(20) DISP(Screen Disp) Setting
(21) Gain dB Value
(22) White Balance Tint
(23) Movie Rec Button(Toggle)
(24) Shutter Speed Value
(25) Get MediaProfile
(26) Set Focus Bracket Shot Num
(27) Set Focus Bracket Focus Range
(28) Focus Bracket Shot
```

2. Sample Application Usage

■Display the character string of the camera body menu(1/2)

#Please note that the camera must support the GetDisplayStringList API in order to perform this operation.

1.Please input "1" and enter.
2.Console window shows candidate values.
3.Please choose the number and enter. For example, if you want to request all information, input "0".

```
Select Display String List Type.
[-1] Cancel input
[0] All Display List
[1] [BaseLook] AELevelOffset ExposureValue
[2] [BaseLook] Input Display
[3] [BaseLook] Name Display
[4] [BaseLook] Output Display
[5] [SceneFile] Name Display
[6] [ShootingMode] Cinema ColorGamut Display
[7] [ShootingMode] TargetDisplay Display
[8] [Camera Gain BaseISO] Display
[9] [Video EIGain] Display
[10] [Button Assign] Display
[11] [Button Assign] ShortDisplay
[-1] Cancel input
input> 0
```

The result of the request is notified in the OnWarning callback.
Since the list is different for each model, it is not always
  possible to get the information.

The following is the output when the request is successful.

```
Request for DisplayStringList  successfully
```

When OnWarning notifies a success, enter "2" in REMOTE-MENU2 to confirm the list name that can be displayed.

2. Sample Application Usage

■Display the character string of the camera body menu(2/2)

4. Please input "2" and enter,
   console window shows list names you can get.

```
Successfully retrieved DisplayStringTypes.

----- ListType to be retrieved -----
[BaseLook] Name Display
[Camera Gain BaseISO] Display
----- ListType to be retrieved -----
```

5. Then if you input "3" and enter,
   console window shows candidate values.

6. Please choose the number and enter.

```
Select Display String List Type.
[-1] Cancel input
[0] All Display List
[1] [BaseLook] Name Display
[2] [Camera Gain BaseISO] Display
[-1] Cancel input
input>
```

The following is an example of Camera Gain BaseISO output.

```
----- [Camera Gain BaseISO] Display -----
1 : ISO 2500
2 : ISO 800
```

2. Sample Application Usage

■Display and change Iris Mode Setting

1. Please input "4" and enter.
2. Console window shows current Iris Mode Setting value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
Iris Mode Setting: Manual
Would you like to set a new Iris Mode Setting value? (y/n): y
Choose a number set a new Iris Mode Setting value:
[-1] Cancel input
[1] Automatic
[2] Manual
[-1] Cancel input
Choose a number set a new Iris Mode Setting value:

input>
```

■Display and change Shutter Mode Setting

1. Please input "5" and enter.
2. Console window shows current Shutter Mode Setting value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
Shutter Mode Setting: Manual
Would you like to set a new Shutter Mode Setting value? (y/n): y
Choose a number set a new Shutter Mode Setting value:
[-1] Cancel input
[1] Automatic
[2] Manual
[-1] Cancel input
Choose a number set a new Shutter Mode Setting value:

input>
```

2. Sample Application Usage

■Display ISO Current Sensitivity

1.Please input "6" and enter.
2.Console window shows current ISO Current Sensitivity value.

```
ISO Current Sensitivity: ISO 125
```

■Display and change Exposure Control Type
1.Please input "7" and enter.
2.Console window shows current Exposure Control Type value.
3.Then if you choose "y",
  console window shows candidate values.
4.Please choose the number and enter.

```
Exposure Control Type: Flexible Exposure Mode
Would you like to set a new Exposure Control Type is value? (y/n): y
Choose a number set a new Exposure Control Type is value:
[-1] Cancel input
[1] P/A/S/M Mode
[2] Flexible Exposure Mode
[-1] Cancel input
Choose a number set a new Exposure Control Type is :

input>
```

2. Sample Application Usage

■Display and change Gain Control Setting
1.Please input "8" and enter.
2.Console window shows current Gain Control Setting value.
3.Then if you choose "y",
   console window shows candidate values.
4.Please choose the number and enter.

```
Gain Control Setting: Manual
Would you like to set a new Gain Control Setting value? (y/n): y
Choose a number set a new Gain Control Setting value:
[-1] Cancel input
[1] Automatic
[2] Manual
[-1] Cancel input
Choose a number set a new Gain Control Setting value:

input>
```

■Display and change Gain Base Sensitivity
1.Please input "9" and enter.
2.Console window shows current Gain Base Sensitivity value.
3.Then if you choose "y",
   console window shows candidate values.
4.Please choose the number and enter.

```
Gain Base: Low Level
Would you like to set a new Gain Base Sensitivity value? (y/n): y
Choose a number set a new Gain Base Sensitivity Setting value:
[-1] Cancel input
[1] High Level
[2] Low Level
[-1] Cancel input
Choose a number set a new Gain Base Sensitivity Setting value:

input>
```

2. Sample Application Usage

■Display and change Gain Base ISO Sensitivity
1.Please input "10" and enter.
2.Console window shows current Gain Base ISO Sensitivity value.
3.Then if you choose "y",
  console window shows candidate values.
4.Please choose the number and enter.

```
Gain Base ISO: Low Level
Would you like to set a new Gain Base ISO Sensitivity value? (y/n): y
Choose a number set a new Gain Base ISO Sensitivity Setting value:
[-1] Cancel input
[1] High Level
[2] Low Level
[-1] Cancel input
Choose a number set a new Gain Base ISO Sensitivity Setting value:

input>
```

■Display and change Exposure Index
1.Please input "11" and enter.
2.Console window shows current Exposure Index value.
3.Then if you choose "y",
  console window shows candidate values.
4.Please choose the number and enter.

```
Exposure Index: 1,250
Would you like to set a new Exposure Index value? (y/n): y
Choose a number set a new Exposure Index:
[-1] Cancel input
[0] 200
[1] 250
        ⌇
[11] 2,500
[12] 3,200
[-1] Cancel input
Choose a number set a new Exposure Index:

input>
```

2. Sample Application Usage

■ Display and change BaseLook Value
1. Please input "12" and enter.
2. Console window shows current BaseLook Value value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
BaseLook Value : Index1 (Preset)
Would you like to set a new BaseLook value? (y/n): y
Choose a number set a new BaseLook value:
[-1] Cancel input
[0] Index1 (Preset)
[1] Index2 (Preset)
[2] Index3 (Preset)
[3] Index1 (User)
[4] Index2 (User)
[5] Index3 (User)
[6] Index4 (User)
[7] Index5 (User)
[8] Index6 (User)
[9] Index7 (User)
[10] Index8 (User)
[11] Index9 (User)
[12] Index10 (User)
[13] Index11 (User)
[14] Index12 (User)
[15] Index13 (User)
[16] Index14 (User)
[17] Index15 (User)
[18] Index16 (User)
[-1] Cancel input
Choose a number set a new BaseLook value:

input> _
```

2. Sample Application Usage

■ Display and change Monitor LUT Setting

1. Please input "13" and enter.
2. Console window shows current Monitor LUT Setting value.
3. Then if you choose "y",
    console window shows candidate values.
4. Please choose the number and enter.

```
Monitor LUT: ON
Would you like to set a new Monitor LUT Setting? (y/n): y
Choose a number set a new Monitor LUT Setting value:
[-1] Cancel input
[1] OFF
[2] ON
[-1] Cancel input
Choose a number set a new Monitor LUT Setting value:

input> _
```

2. Sample Application Usage

■ Display and change Playback Media
1. Please input "14" and enter.
2. Console window shows current Playback Media value.
3. Then if you choose "y",
   console window shows candidate values.
4. Please choose the number and enter.

```
Playback Media: Slot1
Would you like to set a new Playback Media value? (y/n): y
Choose a number set a new Playback Media value:
[-1] Cancel input
[1] Slot1
[2] Slot2
[-1] Cancel input
Choose a number set a new Playback Media value:

input> _
```

2. Sample Application Usage

■Download the camera setting file to PC
1.Please input "15" and enter.
2.To save the downloaded data with the specified file name, enter your file name after "file name >"

If you do not enter a file name, the data is to be automatically saved as "Model name + CUMSET.DAT".

```
Camera-Setting Save/Read State : Idle
Camera-Setting Save Operation: Enable

Please Enter the name of the file you want to save.
(ex. CUMSET.DAT)
If you do not specify a file name, the file will be saved with the default save name.

[-1] Cancel input

file name >
```

If the download fails, you will be notified of the OnWarning callback.
If the download is successful,
the OnCompleteDownload callback will inform you of the saved file name.

The following is an example of a successful download without specifying a name.

```
Complete download. Camera Setting File: C:¥work¥ILCE-1_CUMSET.DAT
```

2. Sample Application Usage [OS common]

■ Upload the camera setting file to Camera

1.Please input "16" and enter.

2. A list of files in the current path that can be uploaded will be displayed. Enter the number of the file you wish to upload.

```
Camera-Setting Save/Read State : Idle
Camera-Setting Read Operation: Enable
Have the camera load the configuration file on the PC.

Choose a number :
[-1] Cancel input
[0]ILCE-1_CUMSET.DAT
[1]TEST.DAT
[-1] Cancel input

input>1
```

The result of the upload is notified in the OnWarning callback.

If the upload is successful, the camera will reboot itself. After the reboot, "disconnected" and "connected" will appear on the console.

```
Configuration file read successfully.

Device Disconnected. Reconnecting... ILCE-1 (D057A04EF7B5)
Connected to ILCE-1 (D057A04EF7B5)
```

2. Sample Application Usage

■Camera Setting Reset
1.Please input "17" and enter.
2.Enter "y" if you are willing to reset the settings.
Entering "y" will restart the camera. Please be careful.

```
Camera Setting Reset Enable Status: Enable

The camera settings will be initialized! Are you sure you want to do this ? (y/n):
```

■Display and change APS-C/FULL setting
1.Please input "18" and enter.
2.Console window shows current APS-C/FULL setting value.
3.Enter "y" to switch to APS-C if the current value is Full, or to Full if the current value is APS-C.

```
APS-C/FULL Switching Enable Status: Enable
APS-C/FULL Switching Setting: Full

Execute APS-C or FULL switching control of the camera ? (y/n):y

Executed the switch between APS-C or Full.
```

2. Sample Application Usage

■Display and change Recording Setting
1.Please input "19" and enter.
2.Console window shows current Recording Setting value.
3.Then if you choose "y",
　console window shows candidate values.
4.Please choose the number and enter.

```
Recording Setting: 50M 420 8bit
Would you like to set a new Recording Setting is value? (y/n): y
Choose a number set a new Recording Setting is value:
[-1] Cancel input
[0] 50M 422 10bit
[1] 50M 420 8bit
[2] 25M 420 8bit
[-1] Cancel input
Choose a number set Recording Setting is value:
input> _
```

■Display and change DISP(Screen Disp) Setting
1.Please input "20" and enter.
2.Console window shows current DISP(Screen Disp) Setting value.
3.Entering "y" switches to "Display All Information" mode if the current value is not "Display All Information" mode, otherwise switches to "Histogram" mode.

```
DISP Mode:Display All Information
When set, it will switch to the next Disp Mode : Histogram

Would you like to set a new DISP Mode Setting is value? (y/n): y
```

2. Sample Application Usage

■Display and change Gain dB Value
1. Please input "21" and enter.
2. Console window shows current Gain dB Value value.
3. Then if you choose "y",
   console window shows settable range.
4. Please input the number and enter.

```
Gain dB current value: 12dB

Would you like to set a Gain dB Value? (y/n): y
Gain dB Value: -3 to 30

input Number> _
```

■Display and change White Balance Tint
1. Please input "22" and enter.
2. Console window shows current White Balance Tint and White Balance Tint Step value.
3. Then if you choose "y",
   please input the number and enter.

```
White Balance Tint CurrentValue: 0
White Balance Tint        Range: -99 to 99
White Balance Tint Step   Range: -198 to 198

Would you like to set a White Balance Tint Step ? (y/n): y

Set a value within the White Balance Tint Range
input> _
```

2. Sample Application Usage

■ Movie Rec Button(Toggle)
1. Please input "23" and enter.
2. Then if you choose "y",
    console window shows candidate values.
3. Please choose "[2] Down"
    to start movie rec(make movie rec button down).
4. To stop movie rec, enter "[1] Up" (make movie rec button up) and "[2] Down" (make movie rec button down).

```
Movie Rec Button(Toggle) Enable Status: Enable

Operate the movie recording button toggle? (y/n):y
Choose a number :
[-1] Cancel input
[1] Up
[2] Down
[-1] Cancel input
Choose a number :

input> _
```

After sending "Down", "Up" must always be sent.

2. Sample Application Usage

[OS common]

■ Display and change Shutter Speed Value

1.Please input "24" and enter.

2.Console window shows current Shutter Speed Value value.

3.Then if you choose "y",
   console window shows candidate values.

4.Please choose the number and enter.

```
Shutter speed value: 1/60
Would you like to set a new Shutter Speed value? (y/n): y
Choose a number set a new Shutter Speed value:
[-1] Cancel input
[0] 1/50
[1] 1/60
[2] 1/100
[3] 1/120
[4] 1/125
[5] 1/250
[6] 1/500
[7] 1/1,000
[8] 1/2,000
[9] 1/4,000
[10] 1/8,000
[-1] Cancel input
Choose a number set a new Shutter Speed value:
input> _
```

SONY   Sony Corporation.

2. Sample Application Usage

■ Display MediaProfile
1. Please input "25" and enter.
2. Console window shows Media slot status and Media slot number.
3. Please choose the number and enter.

```
Media SLOT1 Status: OK
Media SLOT2 Status: No Card

Select Get Mediaprofile SLOT.
[1] SLOT1
[2] SLOT2
[-1] Cancel input
input>
```

4. Lists the MediaProfile information.

```
1 : 543_0003
    Clip URL       : http://localhost:58081/A/Clip/543_0003.MXF
    Thumbnail URL : http://localhost:58081/A/Thmbnl/543_0003T01.JPG
    Proxy URL      : -

2 : 543_0001
    Clip URL       : http://localhost:58081/A/Clip/543_0001.MXF
    Thumbnail URL : http://localhost:58081/A/Thmbnl/543_0001T01.JPG
    Proxy URL      : -

3 : 543_0002
    Clip URL       : http://localhost:58081/A/Clip/543_0002.MXF
    Thumbnail URL : http://localhost:58081/A/Thmbnl/543_0002T01.JPG
    Proxy URL      : -

4 : 543_0001(1)
    Clip URL       : http://localhost:58081/A/Clip/543_0001(1).MXF
    Thumbnail URL : http://localhost:58081/A/Thmbnl/543_0001(1)T01.JPG
    Proxy URL      : -

5 : 543_0002(1)
```

∫

2. Sample Application Usage

■Display and change Focus Bracket Shot Num
1.Please input "26" and enter.
2.Console window shows current Focus Bracket Shot Num value and settable range.
3.Then if you choose "y",
 please enter the number of Focus Bracket Shots.

```
Focus Bracket Shot Number: 3
                Range : 2 to 299

Would you like to set a new Focus Bracket Shot Number value? (y/n): y

input Number>
```

■Display and change Focus Bracket Focus Range
1.Please input "27" and enter.
2.Console window shows current Focus Bracket Focus Range value and settable range.
3.Then if you choose "y",
 please enter the number of Focus Bracket Focus Range.

```
Focus Bracket Focus Range CurrentValue: 4
                        Range: 1 to 10

Would you like to set a new Focus Bracket Range value? (y/n): y

input Number> _
```

2. Sample Application Usage

■Display and change Focus Bracket Shot
1. Please input "28" and enter,
   Change Still Capture Mode(Drive Mode) to FocusBracket
   and shoot.
2. Camera takes several photos and stores in the
   folder set by "set_save_info()" in the source code.

```
Execute Focus Bracket shooting
Priority Key setting SUCCESS
.
Still Capture Mode setting SUCCESS
Capture image...
Shutter down
Shutter up
```

2. Sample Application Usage

■MTP Menu

1. When "Contents Transfer Mode" is selected in the connection selection of TOP-MENU, The following menu is displayed in the console window.
2. Please choose a number and enter.

```
<< MTP-MENU >>
What would you like to do? Enter the corresponding number.
(0) Disconnect and return to the top menu
(1) Get contents list
input>
```

2. Sample Application Usage

■ Display content list and get content (1/2)

1. Please input "1" and enter.

2. Console window shows contents list.

#If the content list is not displayed, it may be taking a long time to get the content information. If you have a lot of content on your media, Please wait for it to be displayed.

#If you are notified that an error has occurred, try the connection again.

```
<< MTP-MENU >>
What would you like to do? Enter the corresponding number.
(0) Disconnect and return to the top menu
(1) Get contents list
input> 1

NumOfFolder [4]
(1/4) NumOfContents [3]
(2/4) NumOfContents [6]
(3/4) NumOfContents [2]
(4/4) NumOfContents [2]
=====   1 : 2020-01-01 (0x40000010) , contents[3] =====
    1 : (0x40000021), DSC00001.JPG
    2 : (0x40000031), DSC00002.JPG
    3 : (0x40000041), DSC00003.JPG
=====   2 : 2020-01-02 (0x40000050) , contents[6] =====
    4 : (0x40000061), DSC00004.JPG
    5 : (0x40000063), DSC00004.ARW
    6 : (0x40000071), DSC00005.JPG
    7 : (0x40000073), DSC00005.ARW
    8 : (0x40000081), DSC00006.JPG
    9 : (0x40000083), DSC00006.ARW
=====   3 : 2020-01-03 (0x40000090) , contents[2] =====
   10 : (0x400000A9), C0001.MP4
   11 : (0x400000B9), C0002.MP4
=====   4 : 2020-01-04 (0x400000C0) , contents[2] =====
   12 : (0x400000D9), C0003.MP4
   13 : (0x400000E9), C0004.MP4

Select the number of the contents you want to download :
(Returns to the previous menu for invalid numbers)


input>
```

2. Sample Application Usage

■ Display content list and get content (2/2)

3.Then if you choose content number,
　console window shows candidate content size.

4.Please choose a number and enter.

■ Character code

There is a rare issue that no output will be displayed in the sample application command window when you use the different character code for your path name from your pc character code setting.