infobit iCam VB80 Platform API Commands Instructions

Contents

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Product Information

Specifications:

- **Product Name:** iCam VB80
- **Document Version:** V1.0.3
- **Platform:** API Commands Manual
- **Website:** www.infobitav.com
- **Email:** info@infobitav.com

Product Usage Instructions

Introduction

1. **Preparation**
   To begin using the iCam VB80, follow these steps:
   - Setting IP Address in Your Computer
   - Enabling Telnet Client
2. **Logging In via Command-line Interface**
   Access the command-line interface to interact with the device.
3. **API Commands Overview**
   Understand the different API commands available for configuration and control.

Command Sets

gbconfig Commands

Configure settings related to the camera and video using the following commands:

Camera:

- `gbconfig --camera-mode`
- `gbconfig -s camera-mode`

Video:

- `gbconfig --hdcp-enable`

Frequently Asked Questions (FAQ)

- **Q: How do I update the firmware of iCam VB80?**
  A: To update the firmware, please visit our website for detailed instructions and downloads.
- **Q: Can I use iCam VB80 with third-party software?**
  A: Yes, iCam VB80 supports integration with third-party software using the provided API commands.

Revision History

Doc Version	Date	Contents	Remarks
V1.0.0	2022/04/02	initial	
V1.0.1	2022/04/22	Revised typo	
V1.0.2	2023/06/05	Add new API	
V1.0.3	2024/03/22	Modified	

Introduction

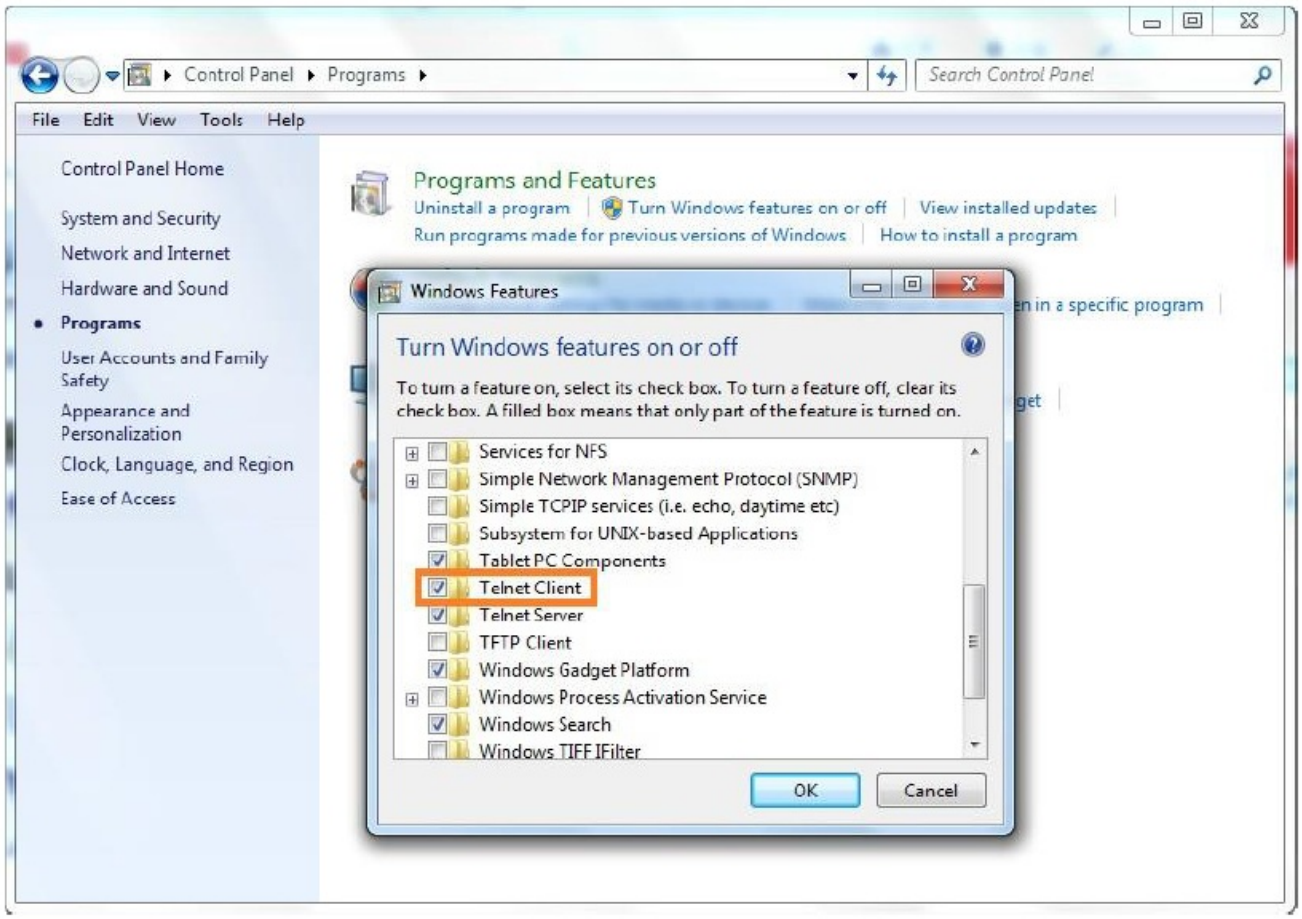
Preparation
This section takes a third-party control device Windows 7 as an example. You may also use other control devices.

Setting IP Address in Your Computer
The detailed operation steps are omitted here.

Enabling Telnet Client
Before logging in to the device via the command-line interface, make sure that Telnet Client is enabled. By default, Telnet Client is disabled in Windows OS. To turn on Telnet Client, do as follows.

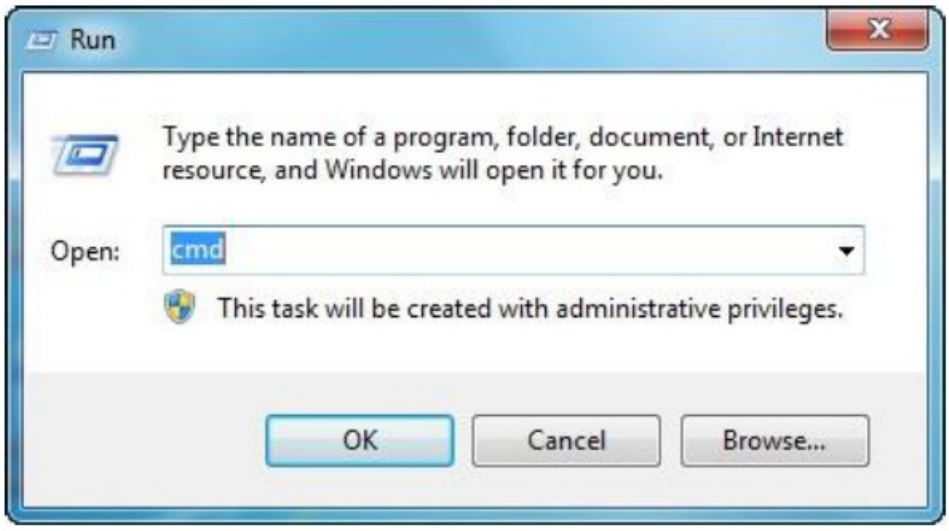
1. Choose Start > Control Panel > Programs.
2. In the Programs and Features area box, click Turn Windows features on or off.

3. In the Windows Features dialog box, select the Tel the net Client check box.



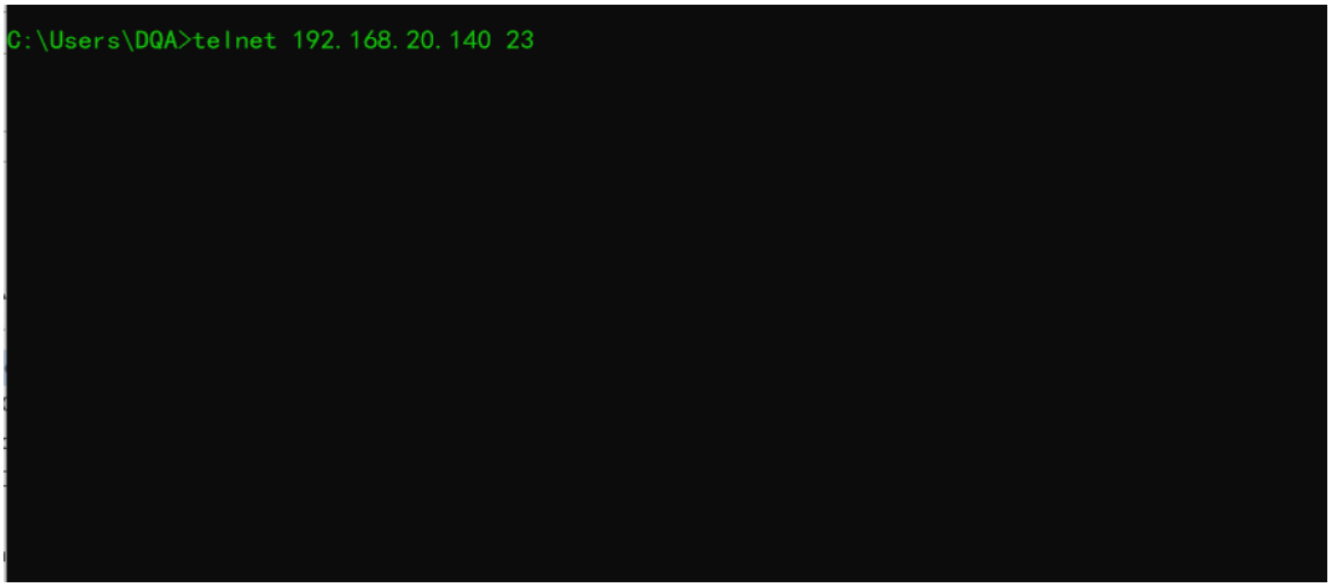
Logging In via Command-line Interface

1. Choose Start > Run.
2. In the Run dialog box, enter cmd then click OK.



3. Input telnet x.x.x.x 23. “23” is the port number.

   For example, if the device’s IP address is 192.168.20.140, input telnet 192.168.20.140 23 and then press Enter.



4. When the device prompts login, input admin and press Enter, then the device prompts password, just press Enter directly because the user admin has no default password.

“The device is ready to execute the CLI API command. The status will show Welcome to VB10/ VB80.”

API Commands Overview

This device’s API commands are mainly classified into the following types.

- **gbconfig:** manage the configurations of the device.
- **gbcontrol:** control the device to do something.

gbconfig Commands

gbconfig commands are mainly classified into two types gbconfig and gbconfig –s commands.

Commands	Description
gbconfig –camera-mode	Set the camera’s tracking mode for the device.
gbconfig -s camera-mode	Get the camera’s tracking mode for the device.
gbconfig –camera-zoom	Set the camera’s zoom.
gbconfig -s camera-zoom	Get the camera’s zoom.
gbconfig –camera-savecoord	Save the coordinates as preset 1 or preset 2.
gbconfig -s –camera-savecoord	Get which preset corresponds to the coordinates.
gbconfig –camera-loadcoord	Load specific preset to the camera.
gbconfig –camera-mirror	Turn on/off the camera’s mirroring.
gbconfig -s camera-mirror	Get the camera’s mirroring status.
gbconfig –camera-power freq	Set powerline frequency.
gbconfig -s camera-power freq	Get powerline frequency.
gbconfig –camera-geteptz	Get eptz information.
gbconfig –hdcp-enable hdmi	Set HDCP on/off for HDMI Out
gbconfig -s hdcp-enable	Get HDCP status for HDMI out
gbconfig –cec-enable	Set CEC enable/disable.
gbconfig -s cec-enable	Get CEC status.
gbconfig –cec-cmd hdmi	Configure CEC commands for controlling display on/off.
gbconfig -s cec-cmd	Get CEC commands for controlling display on/off.
gbcontrol –send-cmd hdmi	Send CEC commands for controlling display on/off.
gbconfig –mic-mute	Set microphone mute on/off.
gbconfig -s mic-mute	Get microphone mute on/off status.
gbconfig –volume	Set audio volume.
gbconfig -s volume	Get audio volume.
gbconfig –autovolume	Adjust audio volume (increase/decrease).

gbcontrol Commands

Command	Description
gbcontrol –send-cmd hdmi	To send CEC command to the display immediately.

Command Sets

gbconfig Commands

Camera:

gbconfig –camera-mode

Command	gbconfig –camera-mode {normal | auto framing | speaker tracking | presentertracking}
Response	The camera will change to the specified tracking mode.
Description	Set the camera's tracking mode from the following: • normal: Users need to adjust the camera to the appropriate angle manually. • autoframing: The camera automatically tracks the people based on face recognition. • speaker tracking: The camera automatically tracks the speaker based on speech recognition. • presentertracking: The camera automatically tracks the presenter always.

Example:
To set the tracking mode to auto-framing:

Command:
gbconfig –camera-mode autoframing

Response:
The camera tracking mode will be set to autoframing.

gbconfig -s camera-mode

Command	gbconfig -s camera-mode
Response	{normal | autoframing | speakertracking | presentertracking}
Description	Get the camera's tracking mode.

Example:
To get the camera's tracking mode:

- **Command:**
  gbconfig -s camera-mode
- **Response:**
  normal

This indicates that the tracking mode is set as "normal".

gbconfig –camera-zoom

Command	gbconfig –camera-zoom {[100, gbconfig -s camera-phymaxzoom]}

Response	The camera zoom will be changed.
Description	Set the camera's zoom. The available value ranges from 100% 1x to the camera's maximum physical zoom. For example, if the camera's maximum physical zoom is 500, the available range of the zoom i s [100, 500]. 1x to 5x

Example:
To set the camera zoom as 100:

- **Command:**
  gbconfig –camera-zoom 100
- **Response:**
  The camera zoom will be set to 1x.

gbconfig -s camera-zoom

Command	gbconfig -s camera-zoom
Response	*xxx*
Description	Get the camera's zoom.

Example:
To get the camera zoom:

- **Command:**
  gbconfig -s camera-zoom
- **Response:**
  100

The camera zoom is 1x.

gbconfig –camera-savecoord

Command	gbconfig –camera-savecoord *{1|2}*
Response	Current coordinates will be saved to preset 1 or 2.
Description	Save current coordinates to the specified preset. Presets 1 and 2 are offered.

Example:
To set current coordinates to preset 1:

- **Command:**
  gbconfig –camera-savecoord 1
- **Response:**

The coordinates will be saved to preset 1.

gbconfig -s –camera-savecoord

Command	gbconfig –s camera-savecoord {1 | 2}
Response	true/false
Description	To get if the coordinates are saved to the specified preset. • True: The coordinates have been saved to the specified preset already. • False: The coordinates are not saved to the specified preset.

Example:
To get if current coordinates are saved to preset 1:

- **Command:**
  gbconfig –s camera-savecoord 1
- **Response:**
  false

The coordinates are not saved to preset 1.

gbconfig –camera-loadcoord

Command	gbconfig –camera-loadcoord {1 | 2}
Response	The specified preset will be loaded into the camera.
Description	Load preset 1/2 to the camera.

Example:
To load preset 1 to the camera:

- **Command:**
  gbconfig –camera-loadcoord 1
- **Response:**
  Preset 1 will be loaded to the camera.

gbconfig –camera-mirror

Command	gbconfig –camera-mirror {n | y}
Response	The camera mirroring function will be turned on or off.
Description	To turn on or off the camera's mirroring function. • n: Mirroring off. • y: Mirroring on.

Example:
To turn on mirroring:

- **Command:**
  gbconfig –camera-mirror y
- **Response:**
  The camera mirroring function will be turned on.

gbconfig -s camera-mirror

Command	gbconfig -s camera-mirror
Response	n/y
Description	To get the mirroring status. • n: Mirroring off. • y: Mirroring on.

Example:
To get the mirroring status:

- **Command:**
  gbconfig -s camera-mirror
- **Response:**
  y

The camera mirroring function is turned on.

gbconfig –camera-powerfreq

Command	gbconfig –camera-powerfreq *{50 | 60}*
Response	The frequency will be changed to *50/60.*
Description	To change the powerline frequency to prevent flicker in the video. • 50: Change the frequency to 50Hz. • 60: Change the frequency to 60Hz.

Example:
To change the powerline frequency to 60Hz:

- **Command:**
  gbconfig –camera-powerfreq 60
- **Response:**
  The powerline frequency will be changed to 60Hz.

gbconfig –s camera-powerfreq

Command	gbconfig –s camera-powerfreq
Response	n/50/60
Description	Get the powerline frequency. • 50: Change the frequency to 50Hz. • 60: Change the frequency to 60Hz.

Example:
To get the powerline frequency:

- **Command:**
  gbconfig –s camera-powerfreq
- **Response:**
  60

The anti-flicker function is 60Hz.

Video:

gbconfig –hdcp-enable

Command	gbconfig –hdcp-enable hdmi { n | auto | hdcp14 | hdcp22}
Response	The HDCP of HDMI Out will be enabled or disabled.
Description	Configure HDCP capability for HDMI Out. • n: Turn off HDCP. • auto: HDCP will be turned on/off automatically based on the actual situation. e.g. when “a uto” is set, if both the source and HDMI display support HDCP 2.2, the HDMI output signal will be HDCP 2.2 encrypted; if the source doesn’t support HDCP, the HDCP of HDMI output signal will be off. • hdcp14: The HDCP of HDMI Out will be set as 1.4. • hdcp22: The HDCP of HDMI Out will be set as 2.2.

Example:
To set the HDCP of HDMI out as 2.2:

- **Command:**
  gbconfig –hdcp-enable hdmi hdcp22
- **Response:**
  The HDCP of HDMI out is set as 2.2.

gbconfig -s hdcp-enable

Command	gbconfig -s hdcp-enable
Response	n/auto/hdcp14/hdcp22
Description	Get the HDCP status of HDMI Out.

Example:
To get the HDCP status of HDMI out:

- **Command:**
  gbconfig -s hdcp-enable
- **Response:**
  n

The HDCP of HDMI out is turned off.

gbconfig –cec-enable

Command	gbconfig –cec-enable *{n | y}*
Response	The CEC will be turned on or off.
Description	Set the CEC on/off. n: Turn off CEC. y: Turn on CEC.

Example:
To turn on CEC:

- **Command:**
  gbconfig –cec-enable y
- **Response:**
  CEC will be turned on.

gbconfig -s cec-enable

Command	gbconfig -s cec-enable
Response	n/y
Description	Get CEC status. n: CEC is off. y: CEC is on. Note: Once CEC is off, the command “GB control –sink power” will be unavailable, and the swit ching between normal working and standby for VB10 will be invalid as well.

Example:
To get CEC status:

- **Command:**
  gbconfig -s cec-enable
- **Response:**
  y

CEC is turned on.

gbcontrol –sinkpower

Command	gbcontrol –sinkpower {on | off}
Response	CEC command for controlling display on/off will be sent from HDMI Out to connected display.
Description	To send CEC command for controlling display on or off. On: Send CEC command for controlling the display. Off: Send CEC command for controlling display off.

Example:
To send CEC command for controlling display on:

- **Command:**
  gbcontrol –sinkpower on
- **Response:**
  The CEC command to power on the CEC-enabled display will be sent from HDMI out.

gbconfig –cec-cmd hdmi

Command	gbconfig –cec-cmd hdmi {on | off} {CmdStr}
Response	CEC commands for controlling display on/off will be configured and saved on the

	device.
Description	To configure and save CEC commands for controlling display on or off on the device. On: Configure CEC command for controlling display on. Off: Configure CEC command for controlling display off. CmdStr: CEC command in string or hex format. For example, the CEC command to power on display may be “40 04”.

Example:
To configure and save CEC command “40 04” for powering on display on the device:

- **Command:**
  gbconfig –cec-cmd hdmi on 4004
- **Response:**
  The CEC command to power on CEC-enabled display “40 04” will be saved on the device.

gbconfig -s cec-cmd

Command	gbconfig -s cec-cmd
Response	*HDMI ON: xxxx* *HDMI OFF: xxxx*
Description	Get CEC commands for controlling display on and off. Ÿ on: Configure CEC command for controlling display on. Ÿ Off: Configure CEC command for controlling display off. Ÿ CmdStr: CEC command in string or hex format. For example, the CEC command to power on display may be “40 04”.

Example:
To get CEC commands for controlling display on and off:

- **Command:**
  gbconfig -s -cec-cmd
- **Response:**
  - HDMI ON: 4004
  - HDMI OFF: ff36

The CEC command to power on the CEC-enabled display: is “40 04”; the command to power off the display: is “ff 36”.

gbcontrol –send-cmd hdmi

Command	gbcontrol –send-cmd hdmi {CmdStr}
Response	The CEC command {CmdStr} will be sent to the display immediately for testing.
Description	To send CEC command {CmdStr} to the display immediately. Note: This command will not be saved on the device.

Example:
To send CEC commands “44 04” to the display:

- **Command:**
  gbcontrol –send-cmd hdmi 4004
- **Response:**
  The CEC command “40 04” will be sent to the display immediately.

gbconfig –mice-enable

Command	gbconfig –mice-enable {n |y}
Response	Miracast over Infrastructure feature enabled or disabled
Description	n, disabled. y, enabled.

Example:
To set Miracast over Infrastructure as enabled:

- **Command:**
  gbconfig –mice-enable y
- **Response:**
  Miracast over the Infrastructure feature will be enabled.

gbconfig -s mice-enable

Command	gbconfig -s mice-enable
Response	n/y
Description	n, disabled. y, enabled.

Example:
To get Miracast over Infrastructure status:

- **Command:**
  gbconfig -s mice-enable
- **Response:**
  n

The Miracast over Infrastructure is disabled.

gbconfig –display-mode

Command	gbconfig –display-mode {single | dual}
Response	Set Display layout to single, split
Description	Single and Split are auto layouts,

Example:
To Set the Display layout to manual mode:

- **Command:**
  gbconfig –display-mode single

- **Response:**

  The display layout mode turned to single.

gbconfig -s display-mode

Command	gbconfig -s display-mode
Response	single/ dual/manual
Description	single, auto single layout dual, auto split layout manual, for manual layout setting

Example:
To get display mode status:

- **Command:**

  gbconfig -s display-mode
- **Response:**

  single

The display mode is single.

Audio:

gbconfig –mic-mute

Command	gbconfig –mic-mute *{n	y}*
Response	All microphones will be set as mute on/off.
Description	Set all microphones (including VB10's and expansible microphones) mute on/off. n: mute off. y: mute on.

Example:
To set all microphone mute off:

- **Command:**

  gbconfig –mic-mute n
- **Response:**

  The microphones will be set as mute.

gbconfig -s mic-mute

Command	gbconfig -s mic-mute
Response	n/y
Description	To get all microphones (including VB10's and expansible microphones) mute on/off status. n: mute off. y: mute on.

Example:
To get all microphone mute on/off status:

- **Command:**
  gbconfig -s mic-mute
- **Response:**
  n

The microphones are muted off.

gbconfig –auto volume

Command	gbconfig –autovolume *{inc* | *dec}*
Response	The volume gain will be increased or decreased by 2 per step.
Description	To increase or decrease the volume. inc: To increase the gain of the output volume by 2 per step. dec: To decrease the gain of the output volume by 2 per step.

Example:
To increase volume:

- **Command:**
  gbconfig –autovolume inc
- **Response:**
  The volume will be increased by 2 per step.

gbconfig –volume

Command	gbconfig –volume {0,12,24,36,50,62,74,88,100}
Response	Set the volume values.
Description	Volume can only be configured to specified values

Example:
To set the volume:

- **Command:**
  gbconfig –volume 50
- **Response:**
  The volume will be set to 50.

gbconfig -s volume

Command	gbconfig -s volume
Response	0~100
Description	Get the volume values.

Example:
To get the volume:

- **Command:**
  gbconfig -s volume
- **Response:**
  50

The volume is 50.

gbconfig –speaker-mute

Command	gbconfig –speaker-mute {n | y}
Response	Set the speaker mute/unmute.
Description	n, unmute y, mute

Example:
To set the speaker mute:

- **Command:**
  gbconfig –speaker-mute y
- **Response:**
  The speaker will be mute.

gbconfig -s speaker-mute

Command	gbconfig -s speaker-mute
Response	n/y
Description	Get the speaker status.

Example:
To get the mute status of the speaker:

- **Command:**
  gbconfig -s speaker-mute
- **Response:**
  n

The speaker is unmute.

gbconfig –vb10-mic-disable

Command	gbconfig –vb10-mic-disable {n |y}
Response	Set the internal mic of vb10 enabled/disabled.
Description	n, enabled y, disabled

Example:
To set the mic disabled:

- **Command:**
  gbconfig –vb10-mic-disable y
- **Response:**
  The mic of vb10 will be disabled.

gbconfig -s vb10-mic-disable

Command	gbconfig -s vb10-mic-disable
Response	n/y
Description	Get the mic status.

Example:
To get the mic status:

- **Command:**
  gbconfig -s vb10-mic-disable
- **Response:**

n

The mic is enabled.

System:

gbcontrol –device-info

Command	gbcontrol –device-info
Response	Get the firmware version
Description	The firmware version for VB10

Example:
To get the firmware version:

- **Command:**
  gbcontrol –device-info
- **Response:**
  V1.3.10

gbconfig –hibernate

Command	gbconfig –hibernate {n |y}
Response	Set the device to sleep.
Description	n, wake up y, sleep

Example:
To set the device sleep:

- **Command:**
  gbconfig –hibernate y
- **Response:**
  The device will sleep.

gbconfig -s hibernate

Command	gbconfig -s hibernate
Response	n/y
Description	Get the sleep status.

Example:

To get the sleep status of the device:

- **Command:**
  gbconfig -s hibernate
- **Response:**
  n

The device is working.

gbconfig –show-guide

Command	gbconfig –show-guide {n |y}
Response	Show the guide screen manual.
Description	n, close y, show

Example:
To show the guide screen:

- **Command:**
  gbconfig –show-guide y
- **Response:**
  The guide screen will show.

gbconfig -s show-guide

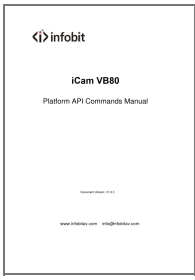
Command	gbconfig -s show-guide
Response	n/y
Description	Get the guide screen status. Note that only the status of the manually set guide screen is fed back.

Example:
To get the guide screen status of the device:

- **Command:**
  gbconfig -s hibernate
- **Response:**
  n

The guide screen is not shown.

Documents / Resources

	**infobit iCam VB80 Platform API Commands** [pdf] Instructions VB80, iCam VB80 Platform API Commands, iCam VB80, Platform API Commands, Platform Commands, API Commands, iCAM VB80 Commands, Commands

References

- infobit AV- 4K Matrix Switchers, Wireless Presentation, Active Optical Cable and Conference Camera-Meeting Room Solutions
- User Manual