

# **Disk Calculator Software**



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#### **User Manual**

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#### **About this Manual**

This Manual is applicable to Disk Calculator Software.

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 (<u>http://overseas.hikvision.com/en/</u>). Please use this user manual under the guidance of professionals.

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# **1** Introduction

## **1.1 Overview**

The Disk Calculator software can calculate the recording time value when given the disk space value and vice versa. Using the software, you are also allowed to add the device with parameters including channel number, device type, bitrate type (constant bitrate and variable bitrate), video standard, resolution, frame rate, encoding mode, and recommended bitrate. After adding the devices, you can calculate the disk space or the recording time.

### **1.2 System Requirements**

Operating System: Microsoft Windows 10/Windows 8/Windows 8.1/Windows 7/Windows 2008 32/64-bit, Windows XP/Windows 2003 32-bit CPU: Intel Pentium IV @ 3.0 GHz or above RAM: 1G or above Video Card: RADEON X700 Series Display: 1024\*768 resolution or above

## **1.3 Conventions**

In order to simplify the description, we define the "Disk Calculator software" as "software" in the following chapters.

### **1.4 Version Information**

After installing the software, click 📥 on the desktop to run the software.

Click the Dutton in the upper-right corner to view the version information and you can click **User Manual** to get the User Manual of the software.

# **2** Operating Disk Calculator Software

After launching the Disk Calculator software, the main interface of the software is shown below:

I Add Device   Device   Channel Number:   Channel Number:   Channel Number:   I   Device Type:   I   I   Device Type:   I   I   Device Type:   I   I   I   Device Type:   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   I   <
ecommended Bitrate(Kbps): 22528

### 2.1 Adding the Device

#### Purpose:

Before any operation, you need to add the device to the channel list. The bitrate type contains constant bitrate and variable bitrate which are suitable for different recording environments.

- Constant bitrate provides constant bitrate of all the segments.
- Variable bitrate files vary the amount of output data per time segment. Variable bitrate allows a higher bitrate (and therefore requires more storage space) to be allocated to the more complex segments of media files while less space is allocated to less complex segments.

You can select either constant bitrate or variable bitrate according to the needs.



The software supports only DVRs and IPCs.

### 2.1.1 Constant Bitrate

If you select constant bitrate as the bitrate type, you can perform the following steps to add the device manually.

Steps:

- 1. Input the channel name and channel number.
- 2. Select the device type. The device type can be selected as IPC or DVR.
- 3. Select the bitrate type as constant bitrate by checking the radio button.
- 4. Configure device parameters including the resolution, frame rate and encoding type.

The recommended bitrate will be displayed after the resolution and frame rate are set.

5. You can set video standard as PAL or NTSC at the top as shown below:



6. Click **+Add** button to add the device. The added device will be displayed on the channel list.

Add Device	PAL NTSC	Disk Calculation:			
Channel Name:	Channel Number:				
DVR1	1	IPC1(1)			
		Number : 1	Constant Bitrate : 27033 kbps		
Device Type:	<	Frame Rate : 30 fps	Resolution : 12MP(4000x3000)	Encoding : H.264	
DVR	•	IPC1(2)			
Bitrate: <ul> <li>Constant Bitrate</li> </ul>		Number : 1	Constant Bitrate : 16384 kbps		
Resolution:		Frame Rate : 25 fps	Resolution : 4K/8MP(4096x21	Encoding : H.264	
5MD(2560-1020)		DVR DVR1(3)			
SINF(2500X1920)	¥	Number : 1	Constant Bitrate : 12288 kbps		
rame Rate(fps):		Frame Rate : 25 fps	Resolution : 5MP(2560x1920)	Encoding : H.265	
25	-				
ncoding:					
H.265	-				
Recommended Bitrate(kbps):					
12288					

You can click × to delete the channel.
 You can also click Clear button to clear all the added channels.

### 2.1.2 Variable Bitrate

If you select variable bitrate as the bitrate type, you are required to import the scenes first according to your actual needs.

#### **Importing Scene**

Perform the following steps to import the scenes. *Steps:* 

1. Click the Dutton in the upper-right corner and click **Update Scene** to enter

the Update Scene interface.

Update Scene	•	×
	Export Template	
	Import Scene	

- 2. Click Export Template and save the pre-defined template (CSV file) on your PC.
- Open the exported template file and it provides four scene examples. Input the required information of the scene to be added on the corresponding column.



You can send the template to out technical engineers, and our engineers can input the parameters in the template based on your actual needs.

- Scene: Edit a name for the scene as you want.
- Encoding Mode: The encoding mode of the video.
- **Resolution:** The resolution of the video.
- **Recommended Bitrate(kbps):** Input the recommended bitrate based on other parameters and the actual scene.
- **Picture Path:** The local path of the scene picture on the PC. For example, *D:\secne\parking lot 1.png.*

NOTE

Only \*.png format picture is supported.

4. Click **Import Scene** and select the configured template file to import the scenes into the software.



You should restart the software for the scene importing to take effect.

#### **Adding Device**

After importing the scene and restarting the software, you can add the device to the channel list manually.

#### Steps:

- 1. Input the channel name and channel number.
- 2. Select the device type. The device type can be selected as IPC or DVR.
- 3. Select the bitrate type as variable bitrate by checking the radio button.
- 4. The imported scenes will be displayed in the Scene area.



Click the scene name to select the scene. The selected scene's parameters including resolution, encoding mode, recommended bitrate will be shown below.

8. Click **+Add** button to add the device. The added device will be displayed on the channel list.

Add Device	AL NTSC	Disk Calculation:			
Channel Name: Channe	el Number:				
DVR1 8		IPC1(1)			$\times$
		Number : 1	Variable Bitrate : 1204 kbps		
Device Type:	<	Resolution : 720P	Encoding : H.264	Scene : Parking Lo	
DVR	-	DVR1(2)			×
Bitrate: 🔿 Constant Bitrate 🖲 Variable Bit	trate	Number : 8	Variable Bitrate : 2045 kbps		
		Resolution : 1080P	Encoding : H.264	Scene : Parking Lo	
Par Ho Resolution: 720P	rking L ospital 1 ospital 2				
Encoding:					
H.264	•				
Recommended Bitrate(kbps):					
1204					
+ Add					

You can click X to delete the channel.
 You can also click Clear button to clear all the added channels.

# 2.2 Calculating

#### Purpose:

The main function of the software is to calculate the recording time value when given the disk space value and vice versa.

#### Before you start:

The device is required to be added to the camera list.

### 2.2.1 Calculating the Recording Time

Perform the following steps to calculate the recording time when disk space is given. *Steps:* 

1. Click **Disk Space Given** tab, and the calculating interface is shown as follows:

Disk Calculation:				Clear
Channel(1) Number : 1	Variable Bitrate : 1204 kbps		×	Disk Space Given     Recording Time Given
Resolution : 720P	Encoding : H.264	Scene : Parking Lo		Disk Space:
DVR Channel(2)			$\times$	● TB 〇 GB
Number : 8	Variable Bitrate : 2045 kbps			
Resolution : 1080P	Encoding : H.264	Scene : Parking Lo		Recording Time/day:
Channel(3)			×	24 h
Number : 1	Variable Bitrate : 1204 kbps			
Resolution : 720P	Encoding : H.265	Scene : Hospital 1		
Channel(4)			×	Recording Time:
Number : 1	Constant Bitrate : 22528 kbps			
Frame Rate : 25 fps	Resolution : 12MP(4000x3000)	Encoding : H.264		Ву Дау
Channel(5)			×	
Number : 1	Constant Bitrate : 15360 kbps			
Frame Rate : 25 fps	Resolution : 8MP(3840x2160)	Encoding : H.264		
DVR Channel(6)			×	
Number : 1	Constant Bitrate : 12288 kbps			Day(s)
Frame Rate : 25 fps	Resolution : 5MP(2560x1920)	Encoding : H.264		
DVB Channel(7)			×	By Week By Month
Number : 1	Constant Bitrate : 14254 kbps			0 0
Frame Rate : 30 fps	Resolution : 5MP(2560x1920)	Encoding : H.264		
				(Wook(c)) (Month(c))

2. Input the known disk space in the Disk Space text field with the TB or the GB for the unit.

Disk Space:	
	● TB ○ GB

3. Set the recording time per day by dragging the  $\bigcirc$  button.

15 h	

#### Notes:

- The disk space value you entered should be the available storage space of the storage device.
- The unit of recording time includes month, week and day, assuming that each month has 30 days and each day has 24 hours.
- The value of record time per day is 24 hours by default.
- 4. After setting the disk space and the recording time per day, the results will be calculated automatically and will be displayed in the Recording Time panel as shown below:

Recording Time:	
By Day	
	7 8 Day(s)
By Week	By Month
11	2
Week(s)	Month(s)

### 2.2.2 Calculating the Disk Space

Perform the following steps to calculate the disk space needed when recording time is given.

Steps:

1. Click Recording Time Given tab, and the calculating interface is shown as follows:

Disk Calculation:				Clear
Channel(1)			×	🕚 Disk Space Given 🛛 📕 Recording Time Given
Number : 1	Variable Bitrate : 1204 kbps			
Resolution : 720P	Encoding : H.264	Scene : Parking Lo		Recording Time:
Channel(2)			×	◯ Day(s) ● Week(s) ◯ Month(s)
Number : 8	Variable Bitrate : 2045 kbps			
Resolution : 1080P	Encoding : H.264	Scene : Parking Lo		Recording Time/day:
Channel(3)			×	O h
Number : 1	Variable Bitrate : 1204 kbps			
Resolution : 720P	Encoding : H.265	Scene : Hospital 1		
Channel (4)			×	Required Disk Space:
Number : 1	Constant Bitrate : 22528 kbps			
Frame Rate : 25 fps	Resolution : 12MP(4000x3000)	Encoding : H.264		
Channel(5)			×	
Number : 1	Constant Bitrate : 15360 kbps			
Frame Rate : 25 fps	Resolution : 8MP(3840x2160)	Encoding : H.264		
DVB Channel(6)			×	
Number : 1	Constant Bitrate : 12288 kbps			GR
Frame Rate : 25 fps	Resolution : 5MP(2560x1920)	Encoding : H.264		<b>G</b> B
DVR Channel(7)			×	
Number : 1	Constant Bitrate : 14254 kbps			
Frame Rate : 30 fps	Resolution : 5MP(2560x1920)	Encoding : H.264		

2. Input the known recording time in the recording time text field with the month, the week or the day for the unit.

Recording Time	
9	○ Day(s) ● Week(s) ○ Month(s)

3. Set the record time per day, and the default value is 24 hours.

Recording Time/day:		
	15	h

4. After setting the recording time and the recording time per day, the results will be calculated automatically and will be displayed in the Required Disk Space panel shown below:



0400001050916

