

How to use RAID function in NVR

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Preparation

Please use the enterprise-class HDDs in HDD Compatible List for RAID function.

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Steps:

1. Enable RAID in **Storage** \rightarrow **Advanced**.

NVR 4.0					
Recording Sche Capture Schedule Storage Device Storage Mode Advanced	Overwrite eSATA Usage Enable HD Enable RAID Use the enterprise	eSATA1 Record/Capt			

2. After the device reboots, create RAID in Storage \rightarrow Raid Setup \rightarrow Physical Disk.

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	Recording Sche		e-touch Config ch C 🕝 Create					
	-	<mark>.</mark> ∠No.	Capacity Arra	ку Туре	Status	Model	Hot Sp	Ĩ.
0	Capture Schedule		5589.03GB	Normal	Functional	WDC WD60PUR	C2	
p.	Storage Device	2	1863.02GB	Normal	Functional	WDC WD20PUR		
88	Raid Setup 🗸 🗸	⊻3	465.77GB	Normal	Functional	WDC WD5000A		
	Physical Disk							
	Array							
	Firmware							
ħ	Storage Mode							
()	Advanced							

Note:

- 1) It's better to create RAID via One-touch Config. (RAID 5 will be created by default).
- 2) If the number of HDD is more than 3, there will be 1 HDD for hot spare by default when you choose One-touch Config.
- 3) After creating the RAID, it will be initialized in Storage \rightarrow Raid Setup \rightarrow Array.

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Ī	Recording Sche									
0	Capture Schedule	Free Space 931/931G		hysical 2 1	Hot S	Status	Level RAID 5	Rebu I	Initialize (Fas	Task st)(Running) 14%
E.	Storage Device	33113310	3	2 1		Functional	KAID 5			nnuanze <u>g</u>
88	Raid Setup 🛛 🗸									
	Physical Disk									
	Array									
	Firmware									
E	Storage Mode									
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3. After the initialization, you will find the RAID in Storage Storage Device, which means the RAID can be used.

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	Recording Sche	+	Add	📿 Init			Total	Cap 931.26GB	Free \$	Spa913.	JOGB
ē	Capture Schedule		Label 1	Capacity 931.26GB	Status Normal	Prop	Type Array	Free Space	Gr 1	Edit	D
8											
88	Raid Setup >										
	Storage Mode						7				
٢	Advanced										

Note:

- 1) The storage mode is recommended to be selected as Quota when using RAID function to reduce the write times of the HDD.
- 2) Make sure that the HDD Sleeping is enabled.

NVR 4.0				🤓 🛃 🕛
Recording Sche		×.		
Capture Schedule	eSATA Usage Enable H	eSATA1	•	
Storage Device	perchange and an and a second			
Raid Setup >	Enable RAID Use the enterprise-c	≤ lass HDD.		
Storage Mode				
Advanced				
	Apply			

3) Check the status of the HDD via SMART Test regularly in order to replace the abnormal HDD early (According to the result of Self-Evaluation or All Evaluation).

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9	System Info >							
	Log Information	HDD No.	1					
0		Self-Test Type	Short Test -	5	Self-Test		Self-test su	cceeded
19	Import/Export	Temperatur	32	Self-Ev P	ass			
Ŷ	Upgrade >	Working Tim	178	All-Eval F	unctional			
9	Default	S.M.A.R.T Infor						
Ð	Network Detecti>	ID 0×1	Attribute Name Raw Read Error Rate	Status OK	Flags	1	Threshold	Value
2.4		0×3	Spin Up Time	OK	27		21	200
9	HDD Operation 🗸	0×4	Start/Stop Count	ok	32		0	100
	SMART	0×5	Reallocated Sector Count	OK	33		140	200
		0×7	Seek Error Rate	ок	2e	X	0	200
	Bad Sector Det	0×9	Power-on Hours Count	OK	32		0	95
	HDD Clone	0×a	Spin Up Retry Count	OK	32		0	100
	100 01010	0×b	Calibration Retry Count	OK	32		0	100
			Power Cycle Count	OK	32		0	100

- 4) It's better to use guide rail to install the device to avoid the vibration in project.
- 5) If a HDD is kicked out from the array, even the status of this HDD shows Functional, it should be replaced.

		Rem	ote Configura	illon				
🗉 🕲 System	Configurin	g the RAID Pa	rameters					
Device Information	RAID	Steeping						
💮 General	Physical Dis	Array Vir	tual Disk RA	D Adapter				
💮 Time				One-touch Con	ng	Create Array	Set Hot Spare D	isk.
💮 System Maintenance	HDD No.	Capacity(GB)	Array	Туре	Status	Serial No.		i.
🛞 RS232	1	3726	RL	Anay	Normal	WDC WD40	PURX-64GVNY0	
R5485	2	3726	R1	Anay	Normal		PURX-64GVINY0	
🛞 Log	3	3726	R1	Anay	Normal	ALC: NO DE LA COLORIZA	PURX-64GVNV0	
🛞 User	4	3726		Global Hot			PURX-64GVNY0	
🎡 Resource Usage	5	3726	R1	Amay	Normal		PURX-64GVNY0	
🎡 Camera	6	3726	RL	Anay	Normal	WDC WD40	PURX-64GVINYO	
Login Security	7	3726		FI anctional	Normal	WDC WD40	PURX-64GVINVD	
🛧 🚳 Network			_		1000000			
🗠 🔞 Storage								
General								
🛞 NAS								
la Anay								
🛞 File								
🛨 🍘 Event								
🔬 🌀 Image								
🐮 📽 Image 📩 🌑 Counting								
• Counting								

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- 6) If the hot spare HDD can't work when the array is degraded, check the status of the HDD via SMART Test.
- 7) If the RAID is abnormal or lost, do not configure the RAID function again or videotape on the HDDs to avoid overwriting the recording data, just power off the device and feedback to us.

