HIKVISION[™]

TECHNICAL BULLETIN

Title:	Hard Drive Partition Management				
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Product:	HIKvision DVR's and NVR's				
Action Required:	Information Only				

HIKvision uses a proprietary method for allocating HDD partitions for increased efficiency and stability.

1. HDD pre-allocate mechanism

When the DVR formats the HDD, it divides the HDD into 4 partitions, and each partition will be divided into many video files (each file is 256MB). The DVR will start recording from 1st video file, then to 2nd video file, etc... When HDD's are full, the DVR will start to overwrite from the earliest file. (There is an option to not overwrite.) With this method, there is no fragmentation of the HDD.

2. HDD standby mechanism

Some of our DVR's can support 8 HDD's, each HDD can be 2TB maximum. At any time only one HDD is used for recording. The other HDD's are in standby mode. When one HDD is full, the DVR will switch to the next HDD. This helps reduce power draw and heat build-up in the DVR, while extending HDD life. There is no video recording lost when the DVR switches to next HDD.

3. HDD index file

Each partition has two index files. It is faster for search during playback with index file. If one index file is broken, DVR can use second index file.

4. HDD sequential power-up

When the DVR is started, it will power-up the HDD's one by one. If all HDD's (up to 8) were to be powered on at the same time, the initial power demand would be excessive.

5. HDD S.M.A.R.T technology

S.M.A.R.T. stands for "Self-Monitoring, Analysis, and Reporting Technology". HIKvision DVR's use this technology to monitor the health of the drives.

HDD working status can be displayed in the DVR's menu under the Maintenance button. Additionally, in the DVR "Exception Configuration" menu, you can setup HDD Exception action such as audible warning, send text to remote host, send email, etc.