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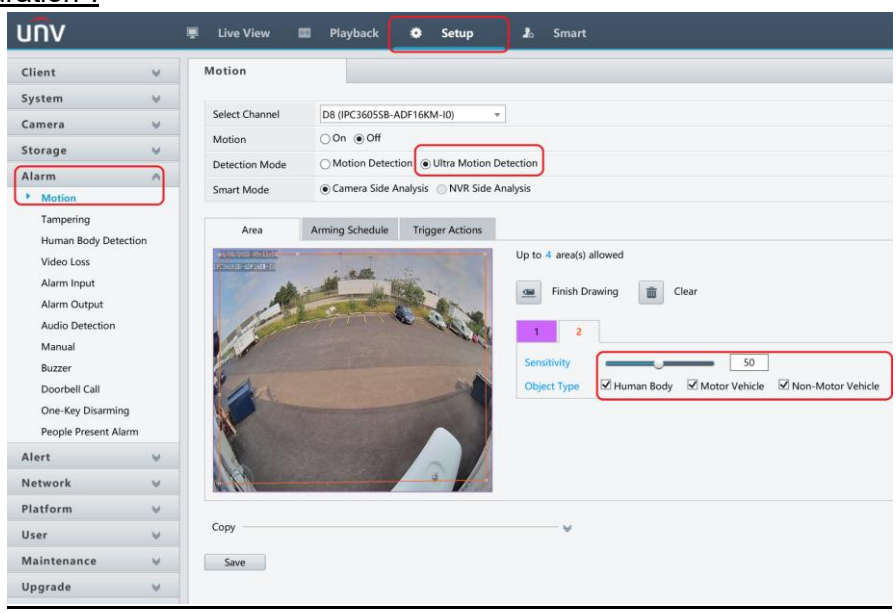
CCTV System Optimization -
Quick Guide - Advanced optimization

V.0

This document provides tips and best practices for optimising your CCTV system to its best performance and maximum resource utilisation.

1. **Alarm/ event Optimization:** Activate Ultra motion detection or smart VCA features (cross line/Intrusion) on cameras instead of Motion detection

- Supported cameras: Most of the Active deterrence, LE-G, SE and SB series cameras support UMD. VCA detection is a feature supported in most of the cameras from essential series.
- Supported NVRs: Mostly all the currently available NVRs in the portfolio are supported.
- Configuration*:

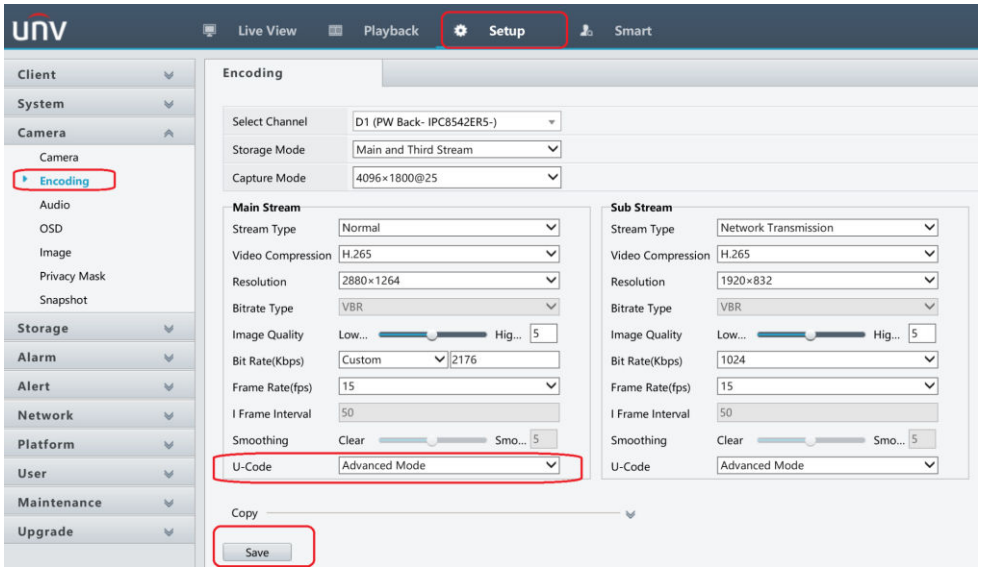


- Advantages: Reduces false alarms significantly and provides reliable alerts.

2. **Bandwidth Optimization:** When using UNV cameras with UNV NVR utilise U-code which reduces your bandwidth requirements up to a quarter of what is actually needed.

- Configuration*:

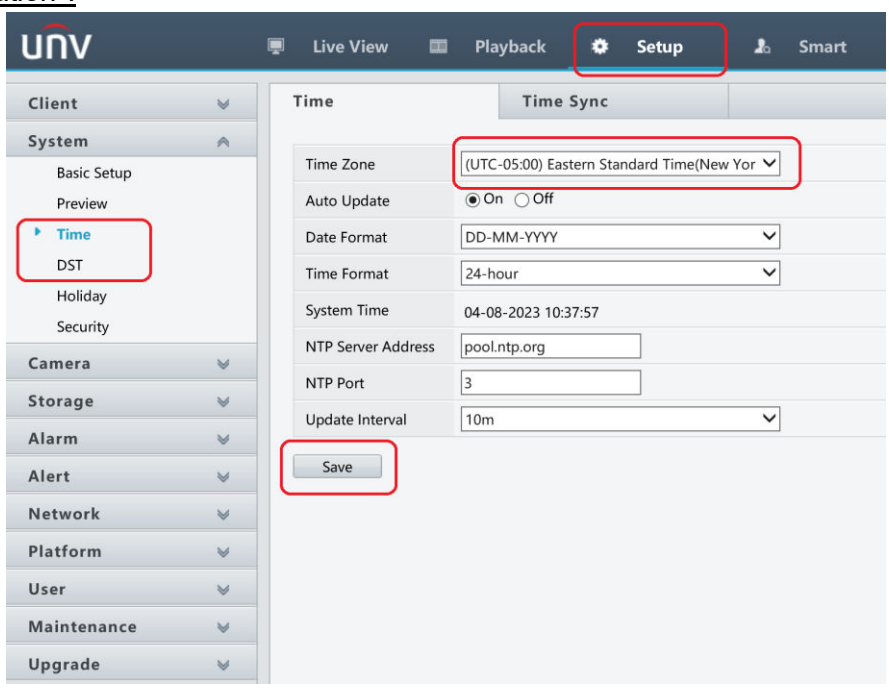
*- choose parameters according to client requirements



- Advantages: Bandwidth optimization provides longer storage on the same HDD as well as better streaming on mobile/ workstation devices.

3. **Date and Time**: Setting up the date and time with Daylight saving helps to navigate through the playback without challenges year long.

- Configuration*:



- Advantages: Time stamp helps to navigate through the system in case of an event.

4. **xxxxxx:** xxxxxx

- xxxxx*:

1. **Basic Settings**
   - Set a strong password
   - Register email address (helpful for password recovery)
   - Set Date and Time (including Time zone and DST)

*- choose parameters according to client requirements

- Set IP address (DHCP or Static) according to customer preferences
- Plug-in cameras to POE ports and cameras will be added automatically via Plug n play
- Auto search cameras using tab and batch add if the cameras are on the network

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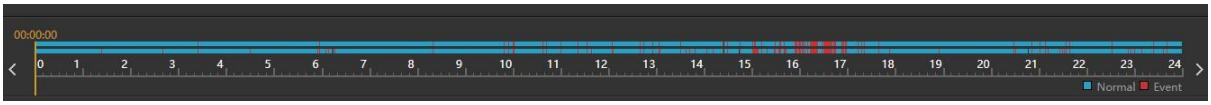
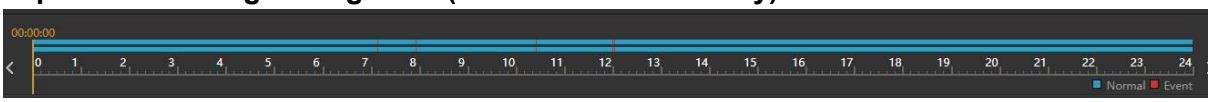
Highly recommended for bandwidth optimization and reducing false alarms

Advantages: Massive reduction in false alarms. comparison playback clip below:

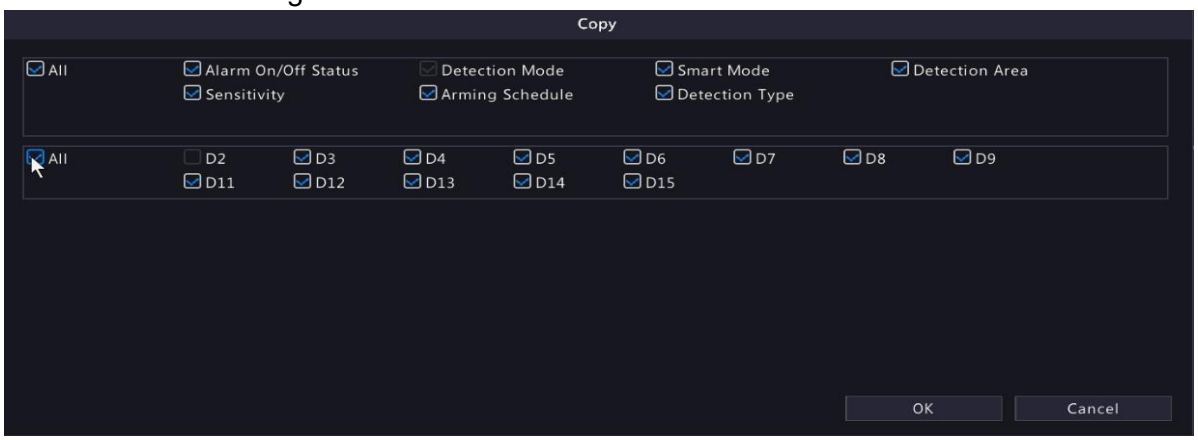
Default settings (alarms counted for shadows, wind, movement of trees, etc)



Optimised settings using UMD (Human or vehicle only)



- **<u>Ultramotion detection</u>** <u>(UMD)</u>
  - Supported devices: Most of the SR3-G, SB-I0, SB-KMC, SE-I0 series cameras. <u>Update the firmware to the latest version in case UMD is not found in the settings</u>.
  - Step-1: Settings> Alarms> Motion Detection> Turn on UMD> Draw detection area> Sensitivity 60% (can be changed as per site conditions)> Save
  - Step-2: Copy settings to all cameras as shown below and save.
  - Those cameras do not support UMD remains on Motion detection by default and can be configured with SIP as shown below.



- **<u>Smart Intrusion Prevention/ SIP (alternative solution for UMD)</u>**

*- choose parameters according to client requirements

- Configuration: Settings> Smart> Turn on SIP feature> Set detection area> Sensitivity 60% (can be changed as per site conditions)> Save
- Copy settings to applicable cameras and save.

- **U-code (bandwidth optimization)**
  - U-Code optimises the total bandwidth requirement upto 75% which helps to increase the storage and better streaming performance through applications.
  - Step-1: Settings> Camera> Encoding> Smart encoding> basic mode> save
  - Step-2: Copy U-code option to all available cameras and save

Encoding Format	H.264	H.265	U-Code Basic mode	U-Code Advanced Mode
1080P Code Stream	4Mbps	2Mbps	1.5Mbps	1Mbps
1080P Code Stream	42.2G/Day	21.1G/Day	15.75G/Day	10.5G/Day

*- choose parameters according to client requirements