

**DALLMEIER
SYSTEM
REQUIREMENTS**

System requirements2

IP network for video surveillance application2

Controlled shutdown and uninterruptable power supply2

A controlled shutdown can be ensured using the following processes:3

Cooling3

Vibration3

Formation of dust3

Picture transmission in LAN and WAN networks4

Connection of redundant power supply units4

SYSTEM REQUIREMENTS

In order to ensure perfect function and maximum lifespan of Dallmeier products we recommend that you take the following guidance and technical requirements into account for every project.

IP NETWORK FOR VIDEO SURVEILLANCE APPLICATION

"In order that Megapixel IP-cameras and Panomera cameras can work properly and smoothly in a customer's network, the following requirements must be considered.

***Mandatory Requirements for Multicast streaming:**

L2: IGMP V2 Snooping RFC4541, Rapid Spanning Tree IEEE 802.1D-2004

L3: PIM Routing, Sparse RFC4601 or Dense RFC3973 Mode

***Advisory Requirements:**

- ✓ Consider amount of supported IGMP Groups of the switches (each Encoder/Module/Camera is one Multicast Group)
- ✓ Low Latency Switching, Low latency PIM Routing (PTZ control, tracking of persons, table games)
- ✓ Sufficient Bandwidth on Core Switch/Router based on the amount of devices
- ✓ Dedicated VLAN for CCTV
- ✓ QOS
- ✓ Redundant Cores/distribution

When the above mandatory and advisory requirements are fulfilled, we as Dallmeier expect that Megapixel IP-cameras and Panomera-solutions can work properly and smoothly in live and playback. Dallmeier is not responsible for the customer's network and can not provide any technical support if the network of the customer does not fulfil the above requirements. It is the installer / system integrator / customer obligation to make sure that the Dallmeier network requirements are fulfilled.

CONTROLLED SHUTDOWN AND UNINTERRUPTABLE POWER SUPPLY

Applies to all Dallmeier recorders, external storage systems and network work-stations

In contrast to a standard commercial PC which does not write continuously to the hard disk, digital recorders are saving data all the time, i.e. the hard disk's read/write head is continuously in use. So if this kind of digital recorder is not shutdown under full control, but suddenly switched off (so that the read/write head is not parked) there is an increased risk of hard disk damage or corrupted data. A controlled power-down protects the hard disk.

Past experience has shown that controlled shutdowns avoid data loss and data corruption.

Dallmeier indicates explicitly in all system manuals that Dallmeier systems should always be shutdown in a proper controlled manner.

A UPS is required to provide for controlled shutdown when there is a power failure. However, the use of a UPS only makes sense if it is linked to the recorder and can effect a managed shutdown of devices.

A CONTROLLED SHUTDOWN CAN BE ENSURED USING THE FOLLOWING PROCESSES:**Controlled shutdown with UPS via contact-input:**

When there is a power outage which is reported by the recorder via the contact, the UPS takes over the managed shutdown and should then power-down the recorder. A new start-up follows automatically when power is re-established.

Controlled shutdown with UPS via RS232 connection:

When a UPS is used which is connected to the recorder via a RS232 port, a shutdown command is sent to the recorder when the battery level reaches about 30 %. On request we would gladly give you recommendations on which UPSs are best for this purpose!

Controlled shutdown via TCP/IP network:

A further option for powering down recorders is to send a command to the recorder via the TCP/IP network which will start the controlled shutdown. We would be happy to advise on how you can apply this solution

COOLING

Dallmeier recording products should only be operated in controlled conditions (air conditioned server rooms or air conditioned 19" cabinets). The recommended ambient temperature is a maximum of 25 degrees Celsius or 77 degrees Fahrenheit.

Excessive temperatures and condensation can lead to hard disk and other hardware damage. Compliance with this recommendation increases the life of the digital recorder.

If the server rooms are conditioned using a separate unit from that of the building, or if 19" cabinets are used, this ensures that the building air conditioning system does not produce high humidity or dust deposit. A separate air conditioning system is always recommended.

If the maximum permissible temperatures are exceeded (e.g. through failure of the air conditioning system), it is strongly recommended to execute a controlled shut down of the devices to avoid hard disk and hardware damage.

VIBRATION

Dallmeier recorders should always be placed on a solid surface. If the devices are exposed to significant vibration, there is a risk of a sector error on the hard disk which could lead to inconsistent data.

FORMATION OF DUST

Please ensure that the formation of dust in the room where the recorder is operated is kept to a minimum.

We would be happy to provide more information on the correct size of air conditioners an UPS, heat emission, power usage and initial current.

PICTURE TRANSMISSION IN LAN AND WAN NETWORKS

We always recommend that you set up your own network infrastructure for your security application, since this avoids mutual influences and ensures that there is always sufficient bandwidth and functionality available.

Usually digital recorders in the network are accessed via a unicast connection, i.e. each individual picture in a split has its own connection and therefore each requires a certain bandwidth.

One more efficient option is a so-called multicast connection in which the DVR pictures are made available in the network and can be viewed by all users without the bandwidth being increased. For multicasting applications all the components used in the topology have to support multicast (IGMP V3 Snooping) and also have to be configured appropriately.

We recommend that this kind of network task is only done by specialists.

WAN links such as ISDN, DSL, GSM or GPRS provide only low bandwidths. Depending on the bandwidth available the Dallmeier digital recorders are adjusted to achieve high quality pictures with a high refresh rate even with low bandwidths.

CONNECTION OF REDUNDANT POWER SUPPLY UNITS

Applies to all Dallmeier products where two power supply units can be connected redundantly, e.g. the DMX-series, IPS 2400 or DIS-2/M component rack, please ensure that the power supply units are connected to two different phases. This is the only way to guarantee a continuous power supply if a fuse of one phase is blown.

If you have questions we would be pleased to give you more help!

Write to info@dallmeier.com or contact@dallmeier.ru