

# AirTraffic

STRATEGY, TECHNOLOGY AND MANAGEMENT FOR THE WORLD'S MOST GLOBAL INDUSTRY

# Management

## UNMANNED AIRCRAFT SYSTEMS

How will ATM meet  
the challenge?

**AIRWAYS**  
making your world possible

**HOW TO WIN CONTRACTS  
IN THE MIDDLE EAST**

**REMOTE TOWERS**

**MAKING THE MOST  
OF TECHNOLOGY**

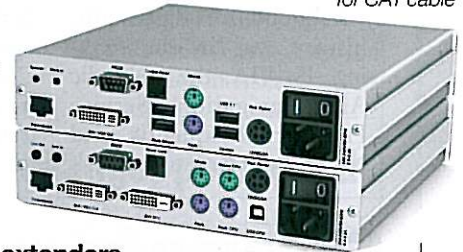
**NEWS**

- CONTRACTS
- COMPANIES
- PEOPLE
- ANSPs

KVM technology is an ideal solution to increase air traffic control work efficiency and also decrease IT costs. Of the three KVM categories - switches, matrix switches and extenders - here **Guntermann & Drunck** look at the advantages and operation of KVM extenders.

# BETTER COMPUTER EFFICIENCY FOR CONTROLLERS

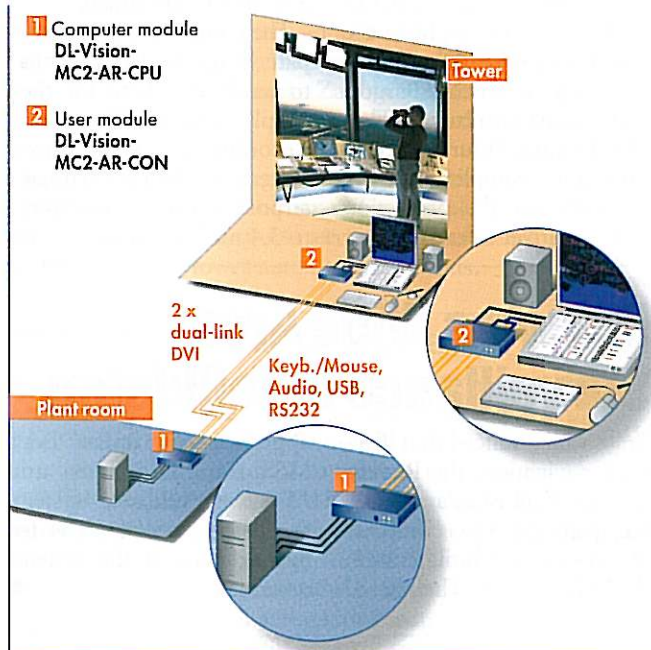
KVM extender pair for CAT cable



A KVM extender consists of a pair of hardware devices that allow the transmission of keyboard, video and mouse (KVM) signals over long distances. It helps ATCOs become more efficient in their mission-critical environment since noise and heat emitting computers go out of sight, out of mind and out of the way, allowing professionals room to work at their best.

## Simple but effective, right from the start

Extenders are easy to install and from impact size. The plug-and-play devices execute initial setup immediately and automatically. Using existing wiring such as infrastructural CAT or fibre optics cable, the multi-platform extenders can be implemented easily.



Signal extension: computer is separated from the controller's desk in the tower and moved into a remote plant room by deploying a KVM extender system based on fibre optics

## Expert knowledge of KVM extenders

Extenders work in transmitter-receiver method. The transmitter in the plant room captures the source computer's external interfaces and transmits them to the receiver located in the control area. Here, the user connects keyboard, monitor and mouse and operates the remote computer in real time without having to pay heed to the distance involved. The systems allow one local and one remote user to access the computer. This is an advantage for maintaining computers, as IT staff can access computers in the plant room without disturbing the ATCOs.

## Specialities of G&D's extenders

Guntermann & Drunck offer an extender toolbox called "Visions". Selecting from different types and variations of transmitting signals, cables and distances makes it easy for you to find the right product that serves your needs efficiently. You can choose from keyboard, video, mouse and various other signals, the number of video channels and cable types as well as transmission distances.

## Bonus on top: safety features

In consideration of the high safety standards within air traffic control, a number of safety features round off the concept. High tech KVM extenders provide a redundant power supply. New and unique to the market is the "Screen Freeze function" in some of the extenders. If video information is lost due to an interruption of the transmission line or a breakdown of the graphics adapter in the computer, this function captures and "freezes" the last available video information. The ATCO, however, is still able to view information on the last status of the sector until the system is up and running again or a fallback system is activated.

Wherever there is no margin for error there are highly developed extenders for mission-critical applications. The possibility of connecting KVM devices to the network broadens the scope of safety features such as:

- condition and event reporting functions (e.g. for interference, temperature, operating condition)
- link control (monitoring of video interconnection)
- permanent monitoring of the computer video signal with reporting function
- SNMP and Syslog message delivery
- integrated self-monitoring power packs, main and redundant
- identification LED on the device's front panel for physically locating devices in the rack, activated by web interface

## What's next?

Stay tuned for the whole story on KVM. For a glimpse of what to expect in the next issue visit [atc.gdsys.de](http://atc.gdsys.de)

	DVI dual-link	DVI single-link	VGA	max. video channels	Keyboard / Mouse	Audio	RS232	USB 1.1	USB 2.0	Fiber optics	CAT-x cable	5 140 m	5 300 m	5 10 000 m
DL-Vision	X	X		2	X	X	X	X	X	X				X
FIBREVision		X		4	X	X	X	X	X	X	X			X
DVIVision		X		4	X	X	X	X	X	X	X	X		
LwLVision		X	X	2	X	X	X	X	X	X				X
CATVision			X	4	X	X	X	X	X	X	X	X		

The range of KVM extenders from Guntermann & Drunck