



Industrial Network  
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# AUTOMATION & INDUSTRIAL IT

SIMATIC S5 S7 HMI IPC – OPC Servers – S5/S7 Adapters  
Industrial Computers & Monitors – Servo Motors  
Data Archiving Systems – Reporting – Alerting

DISTRIBUTION – SERVICES – TRAININGS

## CASE STUDY:

### *KVM extenders in a paint shop (automotive industry)*

#### Need

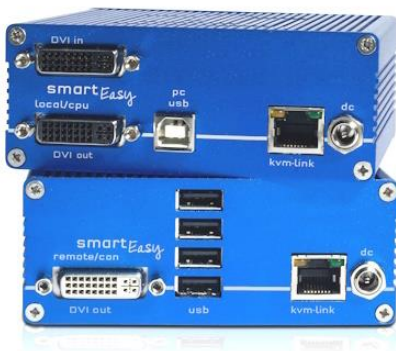
One of the leading car manufacturers needs to use a panel with dedicated software in its paint shop. Due to the difficult conditions in the paint shop, placing a computer there is quite risky. The safe zone (with friendlier conditions) is several dozen meters away. It is too far to mount just a monitor in the paint shop and connect it to a computer located in a safe zone, because the maximum distance for video cables is 15 meters and for USB (touch screen) 5 meters.

#### Solution

The solution turned out to be KVM extenders, the devices that transmit video signals (HDMI, DVI, DisplayPort, VGA) from PC to the monitor and USB signals (e.g. from the keyboard, mouse, touch screen) to the computer over long distances.

Extenders from the Austrian company **kvm-tec** were selected.

Specifically the **smartEASY Single** and **smartEASY Dual** models of the Easyline series.



**smartEASY Single**



**smartEASY Dual**

These devices transmit the DVI signal (or HDMI/DP through an appropriate adapter) from the computer to the monitor over a distance of up to 100 meters over an Ethernet cable (twisted pair) CAT.5e/6/7 or more using a switch or repeater.

**And all this without loss of image quality and without any delays!**



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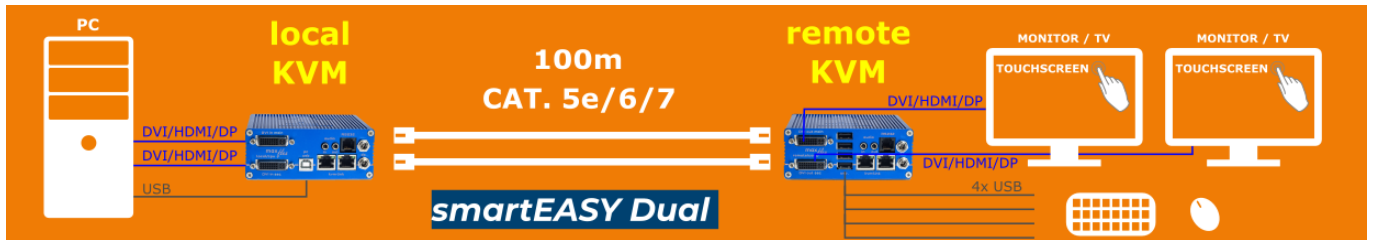
The **smartEASY Single** model allows you to connect to **1 remote monitor** and additionally **use the monitor locally** (at the computer).



More information:

<https://www.kvm-tec.com/en/overview-products/easyline-full-hd/smarteasy-full-hd-kvm-extender/smarteasy-single>

The **smartEASY Dual** extender enables connection to **2 remote monitors** (2-monitor workstation).



More information:

<https://www.kvm-tec.com/en/overview-products/easyline-full-hd/smarteasy-full-hd-kvm-extender/smarteasy-dual>

### The final effect

After using KVM extenders, the customer can place any computer in a control cabinet in the clean zone, and leave only the monitor and the remote KVM unit in the paint shop. This will allow for long, stable and failure-free operation of the computer.

The client uses several dozen pairs of devices (sets) for 1:1 connections - permanent connection.

However, it is also possible to connect the extenders into a network and create a network KVM switch.



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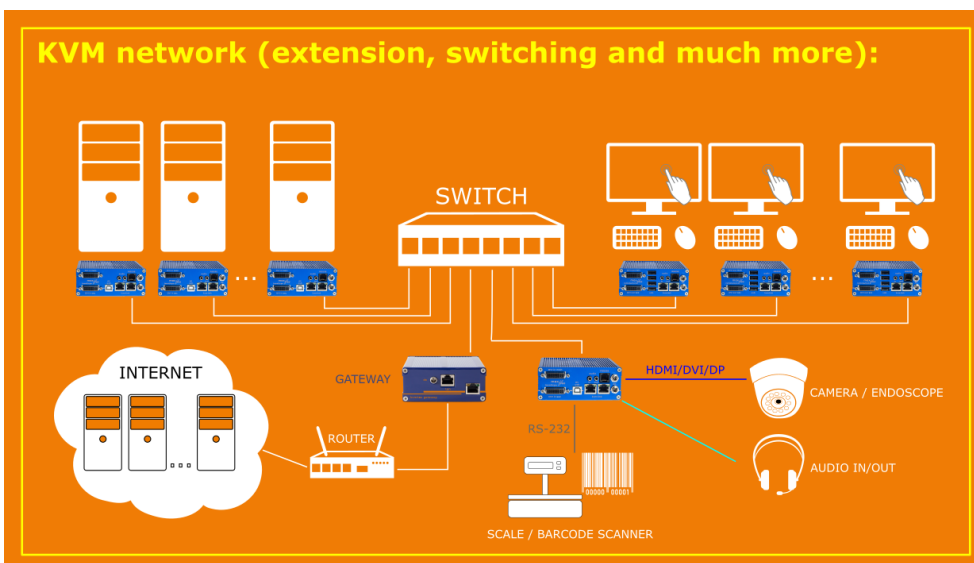
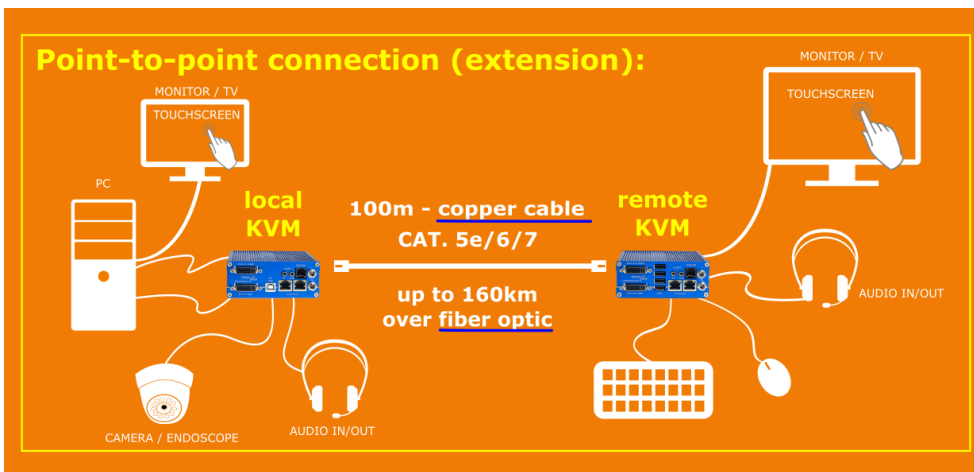
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### More about KVM-TEC / IHSE extenders

KVM-TEC, together with IHSE, offer many models of KVM extenders, including USB extenders, 4K extenders, Gateway enabling remote access to computers and virtual machines (also via the Internet), as well as complete KVM network systems with software for connection management.

These devices are used in television and radio stations, airport control towers, railway traffic control centers, power plants, hospitals, production halls and even conference rooms.

Extenders can be used both as a simple point-to-point connection and in a network with the ability to switch between devices, duplicate images, create groups and users, and much more.



[www.inee.pl](http://www.inee.pl)

[www.kvm-tec.com](http://www.kvm-tec.com)

[www.ihse.com](http://www.ihse.com)

Article about KVM:  
(in Polish)

