

SAMCONtroll mobile Client goes EX - mobile plant visualization in the Ex area



Picture 1:
Tab-Ex® 01 by ecom as a mobile control and Visualization system for the SAMCON ExCam® Series.

Taking the measuring station into the field? Having mobile access to the PCS and the VMS? All this is now possible – due to the high performance tablet for Ex zone 1 made by ecom!

Each solution starts with a problem. The problem we face occurs in nearly every chemical plant in the world and probably every worker, engineer, or operator has encountered it at some point. It is the question concerning the current status of the plant when being in the field. Questions such as whether the control valve is open or closed when inspecting the manual valve. Or whether the truck already is available at the filling station... The list of such „field queries“ is readily extendable, always requiring the same action: Contacting the measuring station. There, at the central measuring station, all technical questions regarding the technical condition of the plant can be answered. How about, though, if such queries are not necessary anymore? How about carrying all process and plant information with you - in the tool bag? And to have, at any time, access to the process as well as the video management system? Or, in a nutshell, how about taking the measuring station into the field? All this is possible with a high-performance tablet suitable for Ex- zone 1!

The hardware: The world wide first tablet for Ex zone 1

The tablet Tab-Ex® 01 by ecom is suitable for hazardous areas and allows new options: Considering that many things have to be done within safe as well as hazardous areas, ecom offers a complete line of tablets, peripheral devices, and accessories which can be used worldwide in zones 1/21 or Division 1 as well as zone 2 or Division 2 - or just in rough conditions. The Tab-Ex® 01 is a compact lightweight with

an Android operating system, managing a variety of tasks and applications as required by the staff members such as performing inventories, material tracking, inspections, and maintenance measures etc. The 8“ display now allows the mobile use of standard desktop applications also in hazardous areas. This means that it is also possible to use SCADA / DCS systems or commercial management systems (SAP, Maximo), video management systems and computer-aided system planning but also to exchange data.

Mobile camera - Live streams for the measuring station.

The two installed cameras as well as a complete selection of different radio communications make it possible to record defective plant sections, components, or deviations during the inspection or maintenance and to make the information directly available to the colleagues in the control center. As a result, an immediate remote diagnosis can be carried out and the required actions can be initiated. With the right



Picture 2:
The ecom Tab-Ex® 01 with SAMCONtroll embedded 1x2 VideoWall.

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infrastructure, this also works vice versa: Video data, available in the measuring station, can also be displayed on the Tab-Ex® 01.

SAMCONtroll - Video management for industrial plants

Nowadays, chemical plants, refineries, or pharmaceutical production plants are many times equipped with cameras and a video management system. Similar to process control systems, cameras function in the field as „visual sensors“, transmitting important information to the measuring station. SAMCON manufactures high-performance cameras meeting all applications in the hazardous area: Ultra compact cameras such as the ExCam Series can be installed at sight glasses to directly transmit crucial process information via video streams to the measuring station. High performance dome cameras of the ExCam Series can, due to high resolution and great zoom factors, surveil complete tank storages. The core of such camera systems is a central video management system such as SAMCONtroll. Just as it is the case also with process control systems, all video streams are centrally collected and can be recorded, if required. But how does the information return to the hazardous area?

SAMCONtroll mobile Client - Video management in the field

Processing video data for mobile devices is something which SAMCON's software engineers have dealt with for some time. In this context, the SAMCONtroll mobile Client is more than just a simple APP – it is a website which has been optimized for mobile devices whereas it is selectable whether this is provided by the video management system (SAMCONtroll) or by the camera itself (SAMCONtroll embedded).

This technology makes the SAMCONtroll mobile Client completely independent from operating systems: Only a browser has to be available on the mobile device! What makes the SAMCONtroll mobile Client so particular is most definitely its functional depth. So it is not only possible to select all configured video streams but also to control the cameras via the touch-interface.

In addition, the SAMCONtroll mobile Client has a highly dynamic bandwidth management. This means that the SAMCONtroll mobile Client automatically recognizes whether the data source is located in a fast net (Wi-Fi) or in a slower one (GPRS) and hence automatically adapts the transmission rate of the video streams.

SAMCONtroll mobile Client - meets ecom Tab-Ex® 01

All functions provided by the SAMCONtroll mobile Client are now also available in the hazardous area – thanks to the Tab-Ex® 01 by ecom. For the first time, a mobile hardware offers a perfect platform for the SAMCONtroll mobile Client – with regard to certifications (ATEX / IECEx & NEC / CEC), the display size of 8“, the interface variety as well as the CPU performance!

Conclusion.

With the SAMCONtroll mobile Client and the Tab-Ex® 01, two core technologies can be combined which allow the mobile data access from the hazardous area! A decisive feature is also bi-directionality: With the Tab-Ex® 01 it is not only possible to view data in the field. Also, all control functions which traditionally are carried out by the measuring station can now be also executed when being in the field - due to combining these two technologies!

Taking the measuring station with you into the field? This is now possible!