

A van for all seasons

Inside Mediaset's ground-breaking new OB truck

By Mike Clark

The Mediaset group, whose nationwide Italian generalist channels are Canale 5, Italia 1 and Retequattro, recently launched Unit 27, the latest addition to its OB production facilities. Although relatively compact (for access to locations that are off-limits to larger trucks), the van, conceived and designed mainly for sports coverage, is a concentrate of technology with several firsts on board.

The sleek single-expansion unit was built at a total cost of €2.5 mil-

but we only use eight or nine at the most for normal soccer coverage."

Inside the truck's uncluttered lines (raised edges, joints, borders or external hinges have been reduced to a minimum), more than ten of its overall 12m are dedicated to internal work space. The 2.3m high production area with its pastel LED-lit design by architect Roberto Albergati has a spacious feel to it and is treated with Topakustik wall panels.

Consigli continues, "The 46-inch Clarity LCD monitors (there are no less than 11 on-board, each

the LCDs, without endless time-wasting connection and disconnection. This is extremely useful with the cameras, since, once they've been identified by the CCU, they're automatically identified by the entire system."

Another feature already foreseen on the Evertz routing system is the fact that every input can be streamed and, in the not too distant future, Consigli will be able to receive quality images from any output directly in his office. "At present, our Milan and Rome studios are linked via 10Gb high-speed networks, and we're working on a project to connect our regional centres with the stadia with similar technology. When this is done, when the trucks arrive at the stadia, they'll link up to the network and have a high-speed connection to wherever we want. At present we can monitor what's happening, but a lot depends on the speed of ADSL lines, etc."

Also on the topic of remote access, almost all on-board equipment is connected in Ethernet via two Cisco Catalyst 2960 switches, each with 48 10/100 ports, so there are 96 units on the network — and, when the van is connected via UMTS to the Mediaset centre in Cologno, the broadcaster's technicians can 'enter' the system and check its status in realtime.

The audio set-up also has a ground-breaking configuration, with a Yamaha PM1D digital mixing system, installed 'astride' two double interconnected Optocore fibre optic network rings, one entirely inside the van and the other partly inside and partly mounted in flight-cased racks positioned outdoors are needed. Optocore digital I/O units and network modules are used to connect all audio sources to and from the main console and the backup desk, a Yamaha DM1000, installed alongside the PM1D in the audio control area — also equipped to handle Dolby Digital and Dolby E formats.

Aldo Medici, in charge of the truck's audio design continues, "The PM1D is used in mirror mode for total redundancy, with two DSP and four DIO8. The first important job we used the truck on was Valencia's MotoGP championship at the end of 2007, where we had three racks outside the truck and the camera signals from the show after the event were also sent via the fibre optic network, as were the intercom signals."

Consigli adds, "As well as the priceless advantage of running out a single cable to handle hundred of channels, the system also offers a solution to the sync aspects, not normally encountered on audio-only work. With this system, the word clock is provided by an Evertz generator which accepts the black burst used to synchronise the equipment and feeds one of the DD32E on each ring."



Luciano Consigli in vision control: "Everything we do from a technical point of view must be HD-ready"

lion and the project, developed by a team coordinated by Mediaset's director of research and engineering, Mauro Cassamagnago, features a highly integrated flexible configuration designed looking to the future.

Regarding the decision not to opt for a full-HD truck, Luciano Consigli, head of this Mediaset project, explains, "Since we knew we'd continue working for some time with SD recorders, we decided to fit out a truck that could work in SD but, whenever we need to work in HD, all we had to do is replace the recorders and the entire truck can be reconfigured from the matrix panel. The majority of the other players on the HD OB market work entirely in HD, from incoming signals through the whole work chain and if you ask for an SD signal they can give you it, but — since we work essentially on our own in-house productions, we decided to use this modus operandi, as it ensures greater flexibility."

Regarding the current HD situation, Consigli opines, "The market is without doubt growing and Mediaset's HD experimentation continues in Valle d'Aosta and Sardinia, with Rete Quattro HD. The majority is up-converted SD material, but we also transmit in native HD. In fact, everything we do from a technical point of view must be HD-ready — we don't even install audio monitors that can't be used on HD work."

Although configured as a 14-camera truck, Unit 27 normally has six Thomson LDK 8000 HDTV multiformat cameras on board, and Consigli adds, "When we need more, we take them from our studios —



Already playing a key role on the truck, an Evertz EQX 288 high density SD/HD/3G router currently has a 128x128 configuration

fed by a separate output of two Evertz 3000 MVP multi-image display processors) are mounted on pneumatic supports, enabling them to be swung upwards for maintenance and the entire production desk, housing a Kayak HD 3.5 M/E HD/SD switcher, can be moved away from the monitor wall to ensure even better visibility."

Closed behind Lexan doors (HD units are noisier than SD equivalents), the equipment racks have a dedicated air-conditioning system, keeping them at a constant temperature of 20°.

Already playing a key role on the truck, an Evertz EQX 288 high density SD/HD/3G router currently has a 128x128 configuration and in-depth use is made of the platform for virtual patching, as Consigli explains, "It enables us to feed any input or camera to any output or monitor, putting cameras exactly where the producer or director wants them on



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