

# ELEMENTS

in collaboration with



TVN MOBILE PRODUCTION

# Support of EVS and VPMS for state-of-the-art OB vans



Felix Rumpf, Head of Post-Production/Production Engineer  
TVN MOBILE PRODUCTION

## With ELEMENTS on board, production takes place anywhere.

As one of the biggest players in the field of outside broadcasting of major events across Europe, TVN MOBILE PRODUCTION, headquartered in Hannover, Germany, is the proud owner of an entire fleet of ultramodern TV trucks. Aside from covering games of the German Bundesliga every match day as well as Champions League and German Cup games for broadcasters ARD and ZDF, Eurosport and Sky, TVN has a long list of other reputable customers, including RTL Sport, UEFA, and Red Bull.

In short: TVN has seen – and done – it all.

**Topic:** Easy collaboration – at home and on the go

**Project:**

TVN

**Location:**

Hannover (GER)

**Challenge:**

Integration with EVS and VPMS

**System used:**

ELEMENTS ONE/  
NAS/CUBE

## Technological wonders and engineering marvels

State-of-the-art OB vans carry an enormous heap of technology required for live broadcasting. The new generation of rolling studios with UHD and even UHD-HDR capabilities needs even more advanced high tech to rise to entirely new challenges. Utterly mobile and flexible, and packed with the latest high-end technology: modern OB vans are engineering marvels, ready to go any time and simply indispensable for live TV production.

### Increasing demands on UHD and UHD-HDR production

In order to stay ahead of the curve and keep the fleet up-to-date at all times, scrutinizing the media storage environment on the trucks is a task that

recurs regularly for the engineering professionals at TVN. While putting a lot of time and effort into researching the latest storage technologies to make sure to choose a future-proof solution for the long-run, it was equally important that the new high-speed media storage would play nicely with the existing EVS system.

**“We wanted a future-proof solution that would work for our requirements in the long-run.”**

Felix Rumpf, Head of Post-Production/  
Production Engineer TVN MOBILE  
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Another critical factor was the compatibility and ease-of-use regarding different editing applications. Utmost flexibility to work with every modern editing application available today was a major requirement.

## ALL-in-ONE – literally.

Headed by Felix Rumpf, Head of Post-Production/Production Engineer at TVN MOBILE PRODUCTION, the team of engineers decided to replace the existing Xsan with an ELEMENTS ONE. Eliminating a multitude of limitations TVN had to deal with the previously utilized Fibre Channel-based Apple Xsan, ELEMENTS ONE high-speed media storage provides both Fibre Channel and Ethernet connectivity. In addition, it was easily integrated with the existing EVS system AND allowed TVN to work natively with all common editing applications, such as Avid, Final Cut, and Premiere.

“After meeting our most important demands already, we didn’t even know what else they had in stock.”

Felix Rumpf, Head of Post-Production/  
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## Utmost flexibility and speed

The speed and overall performance of the new media storage granted the EVS system to offload content directly and in real-time, freeing the buffer faster. Providing the experts at TVN with a lot more flexibility, they can now work a lot faster and more efficient.

“High-speed storage, fully compatible with EVS were crucial factors. But for us, the support of edit-while-ingest and VPMS took the biscuit!”

Felix Rumpf, Head of Post-Production/  
Production Engineer TVN MOBILE  
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At a major soccer event, for instance, the camera feeds are ingested consistently through the EVS system directly to the ELEMENTS storage. Thanks to the support of edit-while-ingest (or “growing files”), they are now able to start editing right away, enabling them to have finished the edit of the highlights of the game basically at the time the game is over.

## Bringing live images and metadata together

On special request of TVN, ELEMENTS implemented the API of VPMS, the go-to resource for metadata, in their embedded MAM system. By making ELEMENTS Media Library compatible with VPMS they closed a crucial gap – and make metadata available on-site in real-time.

Especially during the production of major sports events, users can leverage the full-text search engine in the Media Library to find critical metadata, such as player statistics, in the VPMS database. Every asset tagged in VPMS can be located easily directly through ELEMENTS Media Library.



“The direct connection between VPMS and ELEMENTS Media Library is a huge benefit. No timecode lists anymore!”

Felix Rumpf, Head of Post-Production/  
Production Engineer TVN MOBILE  
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Instead of the usual clutter of Excel sheets or other lists with time codes or notes, producers on the ground can now easily search the database and instantly find not only metadata but also all related video content, and even read out video content according to an EDL or cutting list.

### VPMS and Media Library: Updates both ways

The exchange of data between VPMS and ELEMENTS Media Library works both ways though. If the producer, editor or archivist on site begins to add tags to the freshly recorded video assets in the Media Library, the newly added tags will be put back into the VPMS database.

The crew on the ground is able to work a lot more efficiently during the actual production – PLUS, it saves a lot of time after the show is over. The bidirectional exchange of data between VPMS and Media Library allows for keeping the media archive up-to-date at all times, streamlining the process notably.

### Real life scenario: use case RTL Sport

Following the example of TVN, RTL Sport now deploys two of ELEMENTS' portable storage solution themselves, ELEMENTS CUBE. This circumstance allows for an optimized workflow between the two major players, making them a perfect and highly efficient team.

RTL basically utilizes the mobile storage unit as a transportation vessel: after pre-

loading all the metadata to the CUBE, they use it to do the live editing in TVN's OB van on-site. After the event is over, they take it back to the broadcasting center – loaded with all the current material recorded during the event, enabling RTL to start repurposing the content right away out of the broadcasting headquarters.

### Above and beyond

Today, in addition to the originally deployed ELEMENTS ONE, TVN utilizes two additional ELEMENTS NAS in their OB van fleet, plus an ELEMENTS CUBE. Providing them with a notable competitive advantage, TVN is in an excellent position, and ready to produce major sporting events, international tournaments, and championships in the future.

While an increasing number of productions will be transmitted in UHD and UHD-HDR alongside HD, TVN thinks ahead though, making sure that their services don't stop after the production. By using ELEMENTS' technologies, including ELEMENTS Media Library, in their post-production facility in their headquarters in Hannover as well as their entity in Hamburg, TVN offers customers secure remote access to their dedicated media archives. Authorized customers can log on to TVN's password-protected LTO archive and search the Media Library for proxies at any time and from anywhere. The web-based portal with full-text search engine not only enables viewing and sharing of media assets but also allows for commenting and even draw on images, using any standard device at hand.



**“The combination of VPMS and our Media Library is quite powerful!”**

André Kamps, CEO of  
ELEMENTS