

# AV EUROPE

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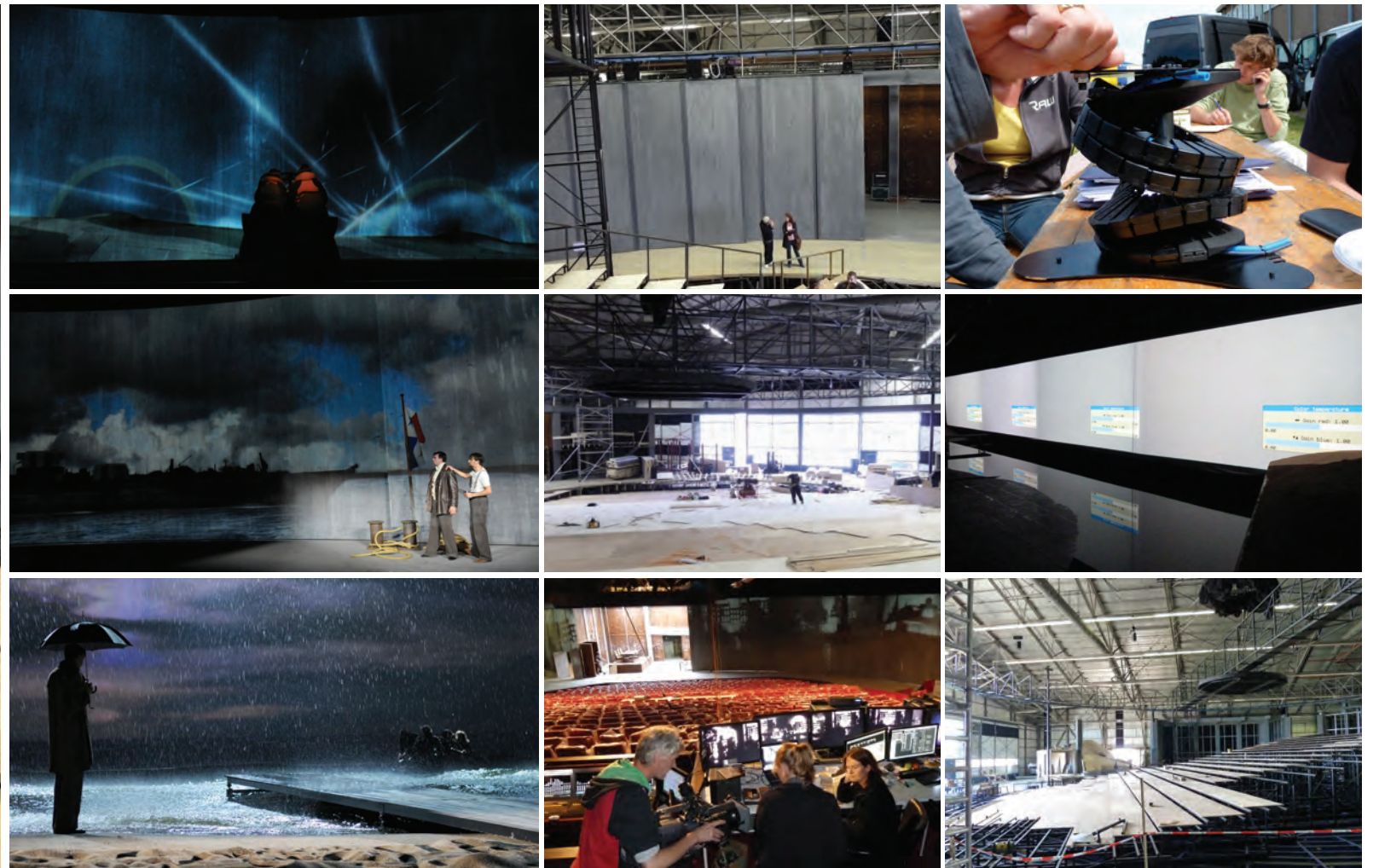
## Soldier of Orange transforms staging

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# Dutch masters



Human experiences contained in the legendary wartime story of Eric Hazelhoff-Roelfzema – Soldaat van Oranje (Soldier of Orange) – continue to make a huge impression in the Dutch psyche. Now a new stage production is turning the great man's story into an av feast. *Clive Couldwell reports*

**Soldier of Orange** is no ordinary musical. Based on Holland's most famous of wartime stories – penned by Erik Hazelhoff-Roelfzema, a Dutch RAF pilot and spy - the action of this engaging theatrical drama takes place in and outside a WW2 hangar on a former military airfield in Valkenburg, near Amsterdam.

It's an impressive set-up. Scenes move from ballroom to a 60m wide beach - with real 'sea', wave machine, HD screen and CGI effects - to the arrival of an original Douglas DC3 Dakota aircraft taxiing on the runway outside the auditorium.

In a conventional theatre the audience faces one direction at a stage area which presents a variety of scenes. One way or another, these change. With *Soldier of Orange*, producer Robin de Levita has turned this approach on its head.

"Having worked extensively in Vegas, Robin's stage design thinking is very much out of the box. With *Soldier of Orange* he came up with the concept of creating realistic, grandiose sets and moving the audience around to face the action," says video designer, Peter Wilms.

As a result, the audience sits on what is thought to be one of the largest revolves ever built – a 300 ton, 30m in diameter disc which sits in the middle of the refurbished hangar and rotates from one area

**Opposite page: The various stages of the production, leading up to the big performance**

## KIT LIST

### Projection

- 6 x Panasonic PT-DZ12000E
- 6 x 1.8-2.4:1 Lens
- 4 x Barco FLM 20 C/W Standard Lens
- 12 x Watchout PC

### Sound

- Alcons LR14 clusters
- Assorted subwoofers
- D-Mitri digital audio platform

### Other

- 1 x Gefen EXT-DVI-16416 16x16 DVI Matrix
- 2 x Dell 2408 24in TFT Monitor
- 2 x Dell Latitude 5500 Projection Laptops
- 2 x Netgear 16-port gigabit unmanaged switch
- 2 x Netgear 8-port gigabit unmanaged switch
- 2 x Netgear 5-port gigabit unmanaged switch

of stage to the next.

Built by German specialist Bumat (seating supplied by Belgium's Jezet Seating), the complete structure is driven by 20 4kW motors so it can turn

at a maximum speed of about 1.2m/s with a 5mm clearance.

"It glides around and you just don't hear it," says Wilms. "It stops to an accuracy of up to 15mm - just over a centimetre - but you need this consistency to match the effect of the projectors, screens, and artwork. Timing and positioning are critical."

The 1,100 seat audience faces a large 3,200 sq m stage which spans almost 180 degrees. Large panel screens - used throughout the performance to mask off the different sets - move around the audience at the same rotational speed as the revolve. They reveal particular scenes when it's time for the audience to see them.

Elstree-based staging and av supplier Blitz Communications provided the high-definition scenic projection and content delivery system for the show. Service included full installation and ongoing technical support.

Dataton Watchout was used to dress the panels with projected narrative, images and video which would extend the *Soldier of Orange* story and enhance the action.

"There are many systems on the market which provide the ability to playback and use HD video. We wanted something with a timeline, the ability to create, edit and change again and again without getting on the phone to an editor every time we

wanted something done," says Wilms. "Watchout helped me refine the production right up until the last minute."

When changes were made in video editing, a soundscape was created to accompany the sequences. Indeed sound designer Jeroen ten Brinke created a surround sound system that complemented the show's visual experience perfectly. Sound moves smoothly from one speaker to the next as the revolve turns.

It wasn't possible to place all speakers on the revolve itself because of its weight and turning momentum. A stationary system using Alcons LR14 clusters is accompanied by a dual 15in subwoofer (supplied by Focus Amsterdam/Rentall which supplied all parts of the audio system). Further sound effects are produced from a second stack of subwoofers placed underneath the audience.

Meyer Sound's new D-Mitri digital audio platform (*Soldier of Orange* is D-Mitri's first major project in Europe) uses several processor cores placed around the stage near the inputs and output amplifiers. These are connected using a fibre-optic gigabit network which carries all audio and control data.

### Projection performance

Video designer Peter Wilms has spent 15 years

## PROJECTOR DEVELOPMENT

We're becoming more comfortable with producing moving images in theatre. Projectors are becoming bigger and brighter and they are quieter. This has always been a problem in theatre.

To project bright images you needed chunky projectors – and to date they haven't been good at operating quietly.

The last thing anyone wants in theatre are fans whirring and interrupting the performance.

"Image quality is also better because everything is HD, and you have far more pixels to work with. People are also beginning to like the idea of projecting, creating illusions with images. You're going to see more HD, almost holographic projection. This will be the next thing," says Blitz Communication's head of theatre and sound, Chris Jordan.

The technology and the ability to create images have become much cheaper and readily available. Projector quality has improved vastly and come down in price.

So what used to be a special effects feature buried in part of a show has become inherent in the design and the creative process as well. »

working with scenic projection, most notably with artist and director Robert Wilson and Peter Greenaway. He is now well known in theatre for working with large format images. "Something simple that works very slowly can still be very powerful," he says.

To create a scene change in a theatre, traditionally you had to get from one scene to another by bringing the curtain in, changing the actual scenery. It wasn't a seamless process and difficult to do. Now using projection, you can make this change completely seamless, moving from one complete vista to another instantaneously. The environment can be transformed, moving from say, a backdrop of New York to the canals of Venice, just by scenic change which involves projection on to different surfaces.

For the *Soldier of Orange* projectors had to be mounted centrally so they could project on to the curved surface running around the audience. But built by the British in the late 1940s, the hangar had been designed to keep the weather out rather than keep projectors still:

"There was a degree of concern that we couldn't really hang anything from the ceiling, so we came up with the idea of having a goalpost structure that spanned the entire audience, with a platform in the middle to support the projector weight. Each projection lens is the same distance from the screen. The geometry works out straightforwardly – all in the centre of the revolve," says Wilms.

Six Panasonic PT-DZ12000E projectors revolve with the audience, pointing in the same direction that the audience is looking and project on to the curved panels. They move with the audience to create huge panoramic views. As well as delivering 180 degrees of projection, the projectors are used as a lighting source, highlighting actors as well as the sets.

Wilms was also concerned about the noise overhead projectors would make, as well as their reliability. Forming part of a cyclorama and not freestanding, if one projector went down there would be a gap in the light.

"The chance of all four lamps going in the Panasonics is very remote. But if one lamp goes in one unit you've still got a show. It also has one of the best black levels out there. We haven't got to use shutters when it goes to black," says Blitz Communications md Paul Hutton.

Four Barco FLM 20 HD projectors lit up the show's 48m backdrop. "This represented a significant investment. We could have used cheaper projectors, but it wouldn't have been as effective," says Wilms. "There was simply nothing else available at the time that could produce the brightness we needed. They'd also been soaked tested by Blitz in the live event market so we knew they were reliable." ■



This WW2 story of friendship, courage and betrayal holds a special significance for the Dutch people

## THE BLITZ VIEW

**Paul Hutton,**  
managing director,  
Blitz

### How did you become involved?

**PH:** From the outset, it was clear that this was a very ambitious project. Given Peter's (Wilms, video designer) experience and involvement with the theatre we thought *Soldier of Orange* was going to be a significant investment, but something we wanted to get involved in technically.

We were driven by Peter's knowledge of the show. Talking to the production company and seeing its plans we could see the amount of money that was being poured into the project. When we saw the pictures of the revolve on its own – just the revolve – and the amount of money they were spending on it – €3.5m – it blew us away. It was just the scale of the project and their belief in its success that pulled us along.

Peter attended a Blitz client's sales event and we then talked in depth about how our requirements could be met, spec'ing out which projectors we'd be using for the size of images he needed to project.

### Becoming involved with such a production must have seemed risky. How did you know the Dutch public would respond to the work and especially this kind of event?

**PH:** This particular story is close to the Dutch people's heart, but we did wonder whether people would drive out to the hangar to see it. We've since learned that musical and theatre productions aren't all based in Amsterdam. They are dotted around the country in a variety of venues and it's accepted this will be a car journey, an evening out.

Producer Robin de Levita has been wise to turn the venue and show into an experience the public will want to be part of. A visitor centre and restaurant has been added to the hangar. Blue runway taxi lights welcome you as you drive into the car park. You know you're arriving

at a special event.

The show's location is halfway between Amsterdam, Rotterdam and Utrecht, so central to your three main audience populations. Europe has a history of building theatres in similar locations, say on industrial estates. People are prepared to travel and turn their event into an entertainment experience.

Our remit was to deliver something that would stand up night after night and work with a crew that, perhaps most importantly, weren't trained. We handed Peter's system to a theatrical technical crew that hadn't got a lot of experience in video projection but could look after it and ensure it delivered quality production every single night. This was a major challenge.

Although the show is on a large scale, the backstage team is small. So we had to make sure it could be switched on two hours before start every night and run flawlessly without video engineers, projectionists and technicians who, after they'd set it up, would usually stay and make sure it ran OK. This had to run with a small team of people who'd been trained in the basics.

However, we do have experience of this kind of operation with *Phantom of The Opera* in Madrid, another long running show. It's a balance of spares on site, good equipment, also regular visits (once a month over and above anything else which needs doing). This is how we're managing this project providing maintenance when required. This will continue throughout the show's run.

While our core business is live events – corporate, production and agencies – we have had a good grounding in theatre. Starting off in the early days with audio, eight years ago we started getting involved with more video in theatre.

This has developed to the point where now when a production is being thought about they start talking to the designers first. Not only are the audio designers are coming to us, but also the video designers. Video has become much more of a tool within theatre, certainly within the last five years.

## CONTACTS

www.soldaatvanoranje.nl  
www.blitzcommunications.co.uk  
www.bumat.com/e/  
www.jezet.com