

# CinePostproduction installs the KODAK Display Manager System

When CinePostproduction Group's subsidiary, Geyer Berlin, set up a log-based grading workflow to guarantee an accurate colour reproduction during the DI process, they looked for an experienced partner to provide calibration tools for the complete DI chain. "Our belief is that good calibration is crucial to the success of a DI project and, as a provider of digital post-production, we needed to offer our customers the best match between digital and analog cinema screening," states project manager Markus Bäuerle.

"We evaluated the KODAK Display Manager System and have to admit that the results were really impressive; we had discovered a very sophisticated calibration tool that would fulfil our needs. We embedded it where we knew we would have a bunch of DIs needing to be delivered to a short deadline and concentrated on very accurate measuring and testing. We quickly got used to the way the system works and achieved extremely pleasing results within just two days of actual calibration work. We later discovered that the software offers tools that provide an even better calibration so, step by step, we were able to enhance our set-up. In our opinion, and the opinion of our customers that have worked with the KODAK Display Manager System-calibrated Barco projector, we are much closer to the film gamut in the digital lab than we have ever been before. With the installation of the KODAK Display Manager System, CinePostproduction Geyer Berlin and CinePostproduction Bavaria Bild & Ton Munich have brought the film print look from analog workflow and projection to our digital grading suites and, together with Kodak, we have taken a huge leap towards a more consistent DI process."

## Digital solution

"Our digital labs in Berlin and Munich made simultaneous purchases of two Barco DP90 KP projectors with built-in dichromatic colour filters; a modification based on research by Kodak for post-production companies seeking to offer their clients a digital viewing solution closely resembling print film," continues Bäuerle. "But we knew we would only benefit from the expanded colour range if we could achieve a very precise

calibration for the desired film look. We therefore planned a self-contained DI solution from the very start. KODAK Display Manager System was the missing link between the native scope of the projector and our aim to offer the DP a very accurate preview of what he would achieve in a cinema projection."

So far, CinePostproduction Geyer Berlin has used the KODAK Display Manager System to calibrate its digital Barco projector and create a monitor LUT that assimilates the film grading as closely as possible on a Class A CRT Monitor. "We encountered some difficulties achieving a satisfying result for the latter because our log-based DI process was set up to resemble film as closely as possible. For this reason, it is quite demanding to create a close match on a video monitor," says Bäuerle. "With Kodak's technical support we finally developed a 3D LUT that does a great job in transferring the log data back into the linear video world, but it obviously still requires the experienced and well-trained eyes of a colourist to adjust the levels and colours manually when there are scenes that exceed the contrast ratio and colour range of a CRT monitor."

CinePostproduction Group's subsidiary, Bavaria Bild & Ton Munich, equipped its recently-established 2K and 4K grading suite with a Baselight colour grading system. "Our customers are overwhelmed by the possibilities of digital colour correction and the astonishing match of digital and analog projection," remarks Fröhlich, digital lab supervisor. "We worked with Kodak on a consistent calibration and now KODAK Display Manager System is at the heart of our colour pipeline. With the Spirit DataCine calibrated to the KODAK TCS Aims and KODAK Genesis Scanner Aims, we can pre-visualise the look of the final prints – even in the early stages of the rushes. It has enabled us to create a precise simulation of in-camera filters or special processing. Without the calibration of the display devices on the KODAK Display Manager System, you couldn't even think about reproducing these subtle changes. The LUTs also provide very accurate results for HDTV ITU 709 deliveries that result from our 2K and 4K DI which is colour corrected with the Barco projector to support a wider colour gamut and contrast range," explains Fröhlich.

<sup>1</sup> Colour grading of feature film  
*Die Aufschneider* (Razor Film Production).



He continues: "The KODAK Display Manager System is helping us to emulate the film look, not only in DI but also in TV applications, and is enabling us to reach new quality levels in both areas of post-production. With regard to cinema, we can now deliver analog and digital prints that are practically identical in colour, while utilising the particular strengths of the two projection technologies. We use it to calibrate digital projectors and monitors and, for less critical workstations, we create generic ITU 709 and sRGB profiles. We use the Shake 3D LUT Plug-in frequently for TV play-outs as Shake is our major I/O tool. Our staff love the KODAK Display Manager System for its very straightforward handling, and the calibration is so comfortable that the practice of doing it frequently fits perfectly into a real-world workflow. This fact distinguishes it from any other calibration system."

At the end of the DI process, both facilities use an ARRIlaser to print out a film negative on intermediate stock. "Thanks to our long-lasting tradition as a classic film lab, we process negatives and produce print copies in house, thus gaining maximum control over the whole DI process from the original camera negative to the final print copy" says Bäuerle, adding that there has been a notable boom in Germany in the digital post production of films shot on Super 16mm material. "Back then we did a variety of optical blow-ups from 16mm to 35mm, but nowadays we advise our customers to do a DI with a 35mm film output instead of an optical blow-up." "We strongly believe that DPs and producers need to be confident that their post-production partners will help them to maintain a consistent look in all the different delivery forms. This will become even more important as the means to deliver content to an audience

increases rapidly over the next few years. As each medium has its own specific colour range, there will be an ever more urgent need to ensure a calibrated viewing environment in the post-production house. KODAK Display Manager System is a very promising tool that will help post-production companies and, ultimately, the DPs to deliver their photographic vision to the audience in the best possible way. Our partnership with Kodak in the field of DI calibration will continue as we use the KODAK Display Manager System to expand our digital lab activities and employ our experience as a full service post production provider to offer a more sophisticated and effective end-to-end workflow. We will also counsel our clients in the steps towards a digital cinema release of their films," says Bäuerle.

### Huge advantage

Holger Schwärzel, Technical Product Manager of Kodak Hamburg, concludes: "Geyer Berlin and Bavaria Bild & Ton Munich have brought the analog film look to the digital screen so precisely that they are really happy with the results they have seen in the digital grading session compared with recorded and projected analog film. A huge advantage for this match is that we have brought our KODAK Motion Picture Service into this procedure, because we have characterised the projector and generated the LUTs in both locations with a high end measuring device from Photo Research Inc. that achieves very precise results in measuring the characteristics of the display. Additionally, the Barco DP90P projector, with the included filter set, designed by KODAK extends the colour space of the print film and maps the two colour gamuts as closely as possible."