

Making work flow at The Farm



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Scenes from two films that The Farm Group helped to make. The Farm Group relies on products from Rohde&Schwarz.

At a glance

The Farm Group is a multi-award-winning company and one of the world's leading providers of post production services. It offers cutting-edge 4K, UHD, HDR, Dolby® Vision and HD video post production for customers such as Sky Atlantic, Amazon, Channel 4, BBC1, BBC2 and ITV.

The post house expanded its operations to new subsidiaries in mid-2016. The plan was to be fully operational for productions in UHD and HDR by early 2018. However, due to the increasing demand for UHD content from Sky, Netflix and Amazon, it became clear in mid-2017 that the company would have to act sooner. The need for immense data handling in the desired production formats was compounded by the need to handle three different versions in the approval process.

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Executive summary

- **Customer:** The Farm Group
- **Task:** Fast access and efficient collaboration in UHD and HDR for conform, VFX and grading, with the flexibility to be able to grade on different systems, and then do the finishing edits in Flame with a highly reliable, scalable and affordable solution
- **Challenge:** Quick implementation in existing workflow, safety for current productions, future-proof solution
- **Products:** Solution based on six R&S®SpycerBox Cell, one R&S®SpycerBox Ultra TL, one R&S®Clipster 6
- **Key benefits:** Requiring data rates of around 1.5 Gbyte per second per client, media can be moved around faster from the R&S®SpycerBox devices than from anything else available. The R&S®SpycerBox is like a "SAN in a can". If you were to have any issues with playback, troubleshooting is easy with the software. R&S®CLIPSTER supplies fast processing. For The Farm Group, it is like a Swiss Army knife



ROHDE & SCHWARZ

About The Farm Group

Founded in 1998, the multi-award-winning Farm Group is one of the world's leading providers of post production services. The Farm Group offers cutting-edge 4K, UHD, HDR, Dolby Vision and HD video post production along with the very best creative and experienced sound teams using state-of-the-art 7.1 mixing studios in the UK and the US.

The Farm Group has worked on some of the most notable scripted and unscripted series over the years, such as "Save Me" (Sky Atlantic), "The Grand Tour" (Amazon), "Catastrophe" (Channel 4) and "Hospital" (BBC2), as well as technically challenging fixed-rig returning series such as "24 Hours in A+E" (Channel 4), and prime-time entertainment, most recently "Michael McIntyre's Big Show" (BBC1) and "Britain's Got Talent" (ITV). The Farm Group's staff has unrivaled knowledge when it comes to delivering across all genres, platforms and disciplines.

"The R&S®SpycerBox devices give us faster access and efficient collaborative working."

Adam Peat, Chief Engineer of The Farm Group

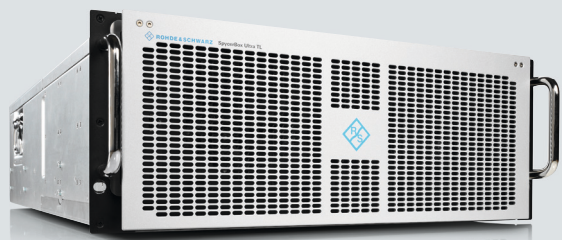
The Farm Group recently invested in six R&S®SpycerBox Cell devices, an R&S®SpycerBox Ultra TL and the latest R&S®CLIPSTER 6 (Netflix Edition) to meet the rising demand for UHD and HDR post work. The Farm Group's CEO, David Klafkowski, and Chief Engineer, Adam Peat, shared their thoughts about the investment and how Rohde&Schwarz complements their exacting workflow.

Moving into the UHD era

"We opened the new Farm on Newman Street in mid-2016 with the full intention that it was going to be full UHD, HDR from the get-go. No one else was offering this full service, at this scale," says Klafkowski.

"We had planned to make our William facility full UHD, HDR by early 2018. However, due to the increasing demand for UHD content from Sky, Netflix and Amazon, it became clear in mid-2017 that we needed to act sooner. For Amazon, pressure came from "The Grand Tour" and "Grand Prix Driver". And for Netflix, we were posting several Netflix originals – drama, stand-up comedy and entertainment – with a new ten-part series starting later this year.

"With Netflix, one of the complexities is the scale of the intermediate delivery. The volume of data for each one-hour deliverable is between 5 Tbyte and 6 Tbyte per 16-bit DPX or OpenEXR master. There are three masters for each



R&S®SpycerBox Ultra TL is a storage system that provides all the benefits of a powerful and compact storage solution in a single unit. It is designed to meet the requirements of high-capacity workflows and has a wide variety of connectivity options.



R&S®SpycerBox Cell is a high-performance storage solution that features high-density layout and redundant setup. It is based on a modular storage concept and offers a powerful combination of storage density and scalability.



R&S®CLIPSTER is the gold standard solution for mastering and distribution of feature films and episodic TV. It is a powerful tool for editing any type of media, in any resolution, and creating a high-quality professional deliverable that meets stringent, professional delivery specifications.

show: the nongraded assembly master (NAM), a graded assembly master (GAM) and a video delivery master (VDM). There might also be SDR and HDR versions. A ten-part season could have 300 Tbyte of data to deliver,” explains Klafkowski.

“With a very data-hungry show, for example, we take the data in as RAW assets and copy it to near-line storage,” comments Peat. “For the offline, transcoding to HD proxy is done with Avid NEXIS. Then in finishing, we relink and grade from the native files and export OpenEXR files to the R&S®SpycerBox Cell devices. The final work is done in Autodesk Flame. Once this is complete, a new set of OpenEXR files is created for the VDM onto either R&S®SpycerBox Cell devices or the R&S®SpycerBox Ultra TL, depending on when deliverables will be created.

“The R&S®SpycerBox devices give us faster access and efficient collaboration for conform, VFX and grading, with the flexibility to be able to grade on different systems, and then to do the finishing edits in Flame. They’re the fastest storage we’ve got on a per-client basis, which requires data rates of around 1.5 Gbyte per second per client. We’ve created a little island of high-bandwidth clients, and we need the R&S®SpycerBox Ultra TL devices to park that material out of that environment when it’s not being worked on.

“The R&S®SpycerBox Cell devices are primarily for realtime playback, high-bandwidth work. We have two clusters of R&S®SpycerBox Cell devices – one spinning disc and the other SSD. The R&S®SpycerBox Ultra TL is there as a work-in-progress storage with a useable 320 Tbyte,” explains Peat.

Investment choices

“Higher resolution means higher bandwidth, so you’ve got to invest in new, faster storage. Manufacturer performance claims throughout the market tend to be the best possible case. Rohde&Schwarz delivers on what it quotes, when you need it. There aren’t that many viable options out there. We’ve worked with Rohde&Schwarz storage for over ten years, and we trust the brand,” explains Klafkowski.

“Some of the beauty of the R&S®SpycerBox is the lack of contention because it’s isolated, like a ‘SAN in a can’. If you were to have any issues with playback, troubleshooting is easy with the software,” adds Peat.



“Rohde & Schwarz delivers on what it quotes, when you need it. There aren’t that many viable options out there. We’ve worked with Rohde & Schwarz storage for over ten years, and we trust the brand.”

David Klafkowski, CEO of The Farm Group

“The value of R&S®SpycerBox lies in its reliability and the extent we use it. Other products on the market simply wouldn’t meet our requirements,” states Klafkowski.

“We have six R&S®SpycerBox Cell, one R&S®SpycerBox Ultra TL and two R&S®SpycerBox Flex devices (which we’ve had since our William facility opened five years ago). We’re running a cluster of R&S®SpycerBox Cell devices in Newman Street and another at William on Marshall Street,” adds Peat.

“We connect the two separate SAN fabrics over dual 16-Gbyte FC links between the two buildings via CWDM. In terms of performance, we can move media around faster from the R&S®SpycerBoxes than from anything else available.”

David Klafkowski values consistency and reliability. “We’ve had R&S®CLIPSTER devices for years, I often refer to it as the industry’s ‘Swiss Army knife’ or the box that ‘gets us out of jail’,” he explains. “We bought R&S®CLIPSTER for the Wallander series back in 2008 (our first 4K job). R&S®CLIPSTER supplied super-fast processing of .R3D files when no one else could do it. Over the years, we have used it for creating DCP and Jpeg2000 files, but now it is our mastering workhorse for creating IMFs and UHD Pro Res.”

Adam Peat agrees. “We’ve had three iterations so far. The first R&S®CLIPSTER was Gen4. The R&S®CLIPSTER 6 Net-flix option gives us the ability to create IMFs in volume. It has many other uses, such as transcoding and conversions of source files and, of course, playback of many codecs.

“The alternatives may seem cheaper because you’re only buying the software. But you have to remember that the hardware underneath needs to run the software at the same speed. By the time you’ve done that, the costs are comparable. You turn to R&S®CLIPSTER because you know you can rest assured that when you create an IMF or other deliverables, the files will be in line with the specifications,” Peat concludes.

Service that adds value

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