Saving the past with R&S®SpycerBox Ultra TL

© R3store Studios

Jack Lemmon in "The Apartment", cropped and restored picture

At a glance

Working with some of the world's leading film archives, R3store's processes are more than simply capturing and digitizing moving images. Exploring the nature and relevance of the content is crucial to the work, dictating the fine use of color grading and restorative techniques. The final results are delivered to the collection's curators in digital formats.

Starting a new business with R3el.com for clip sales, the R&S®SpycerBox Ultra TL made sure they had a proper storage system everyone could connect to and work from, cutting out all the lost time. They can now connect far more quicky and conveniently.

Executive summary

ı **Customers**:
  · R3store Studios, London
  · R3el.com, London
ı **Task**: Film scanning requirements, including Regular8, Super8, 9.5, 16 and 35 mm, VHS and DVC Pro
ı **Challenge**: Scan up to 4K, but mostly HD
ı **Solution/product**: Two R&S®SpycerBox Ultra TL at the heart of R3store's digital restoration facility and archive clip sales business
ı **Key benefits**:
  · Scans 2K faster than real time – up to 30 frames per second
  · Reliable, robust and fast storage and client serving solution
  · Grading and restoration all at the same time and all from the same R&S®SpycerBox

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The customers

R3store Studios, London

R3store Studios launched in East London in summer 2016. Although it is a boutique business, it is one of the UK's leading facilities for archive restoration. R3store's services include scanning, restoration (both automated and manual), grading and mastering.

R3el.com, London

R3el.com launched in spring 2018 with a complementary mission to deliver beautifully curated clips in a few clicks. It currently represents the index travel library going back to the 1950s, NASA's HD collection and Dirk Bogarde's personal movie collection, and is looking at rapid expansion.

The challenge

R3store Studios has a broad range of customers – from individuals with Super8 and VHS out of the attic to universities, regional and national archives, sports archives (such as Wimbledon for IMG) and feature film and TV distributors (such as Arrow Video). The plan was always to have a clip sales business, and they launched R3el.com earlier this year.

The solution

R3store and R3el's COO Jo Griffin and their head of grading, Gerry Gedge, explain how two R&S®SpycerBox Ultra TL devices sit at the heart of their digital restoration facility and archive clip sales business. Both companies use the R&S®SpycerBox Ultra TL devices, which have proved to be a reliable, robust and fast storage and client serving solution.

Jo Griffin: "We do a huge amount of work for the BFI and museums (such as the Imperial War Museum) for exhibitions and displays. I've always felt that there's a large amount of archive on shelves gathering dust, and thought that as a business there must be a way of working together to add value with the services R3store already offers."

Services

Gerry Gedge: "We have two Nucoda suites (one for grading and one for restoration) and a Scanity (for film scanning) – all of them are connected by dual channel fiber to the R&S®SpycerBox Ultra TL devices. It's also accessible from all of the PCs and Macs. We keep all projects live until approved and, when completed, back up to LTO.

Our film scanning requirements include Regular8, Super8, 9.5, and mainly 16 mm and 35 mm. We also ingest tapes, including VHS and DVC Pro. We've even worked with film from the late 1800s. We can scan up to 4K, although most of our work is 2K and HD.

The R&S®SpycerBox Ultra TL is designed to meet the requirements of high-capacity workflows and has a wide variety of connectivity options.
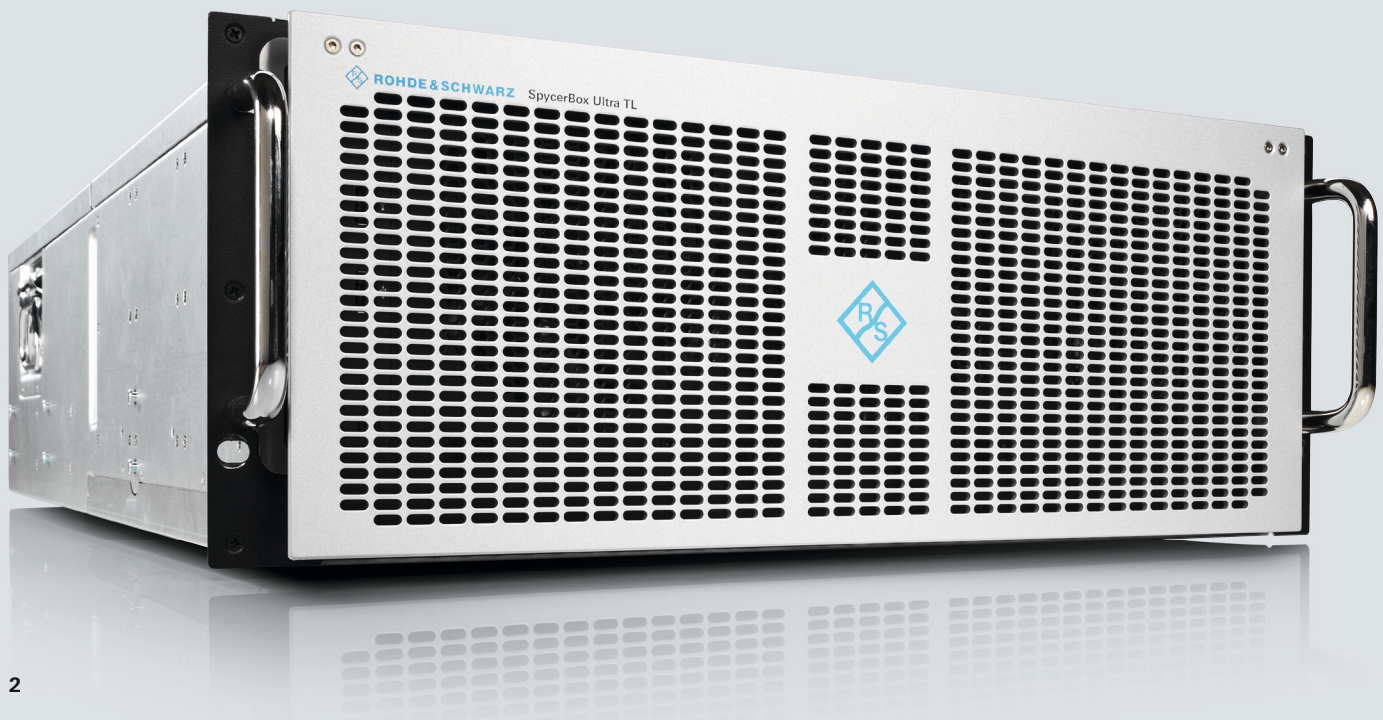
With the R&S®SpycerBox Ultra TL we can scan 2K on to it faster than real time – up to 30 frames a second – without a hitch, while at the same time it's still serving two Nucodas and an edit on the Mac. It never seems to run out of speed. It's very impressive.

If I'm scanning 4K, I'm thinking something's got to give, but it doesn't. The grading and restoration work is still going on – all at the same time and all from the same R&S®SpycerBox Ultra TL. We're mostly mastering to ProRes and DPX saved to LTO."

Reliable storage
Jo Griffin: "You definitely do get what you pay for. At our previous company they never bought a centralized storage system. Each suite ran off a separate storage system. And when we were doing our last major project for the BFI Film Heritage, we ended up doing about 3000 films. But the process of trying to get all that content from one department to another was so slow because we had to keep on waiting for it to copy across, while it regularly fell over in the process.

Starting the new business, we were always going to make sure we had a proper storage system everyone can connect to and work from, cutting out all the lost time. We can now connect far more quickly and conveniently.

We brought a desired workflow with us – the way we wanted to work. We all came from the previous company together, and we knew what we wanted and how to do it better.

We started with one 200 Tbyte R&S®SpycerBox Ultra TL and then bought a second 200 Tbyte last summer. The first one worked like a dream, so it was a no-brainer to buy the second. They operate as separate storage units with different drive numbers, and we keep different projects on each."

Gerry Gedge: "Sometimes it takes a client a few months to sign off, so we have to keep it live. The restoration work can be very data hungry: 2K scanned to DPX with a WAV is about one terabyte an hour."

Jo Griffin: "Because the R&S®SpycerBox Ultra TL gives us such a quick workflow, our throughput is far greater than we could previously have achieved. So the minute the scan has been completed, the grade has already started, rather than having to wait a few hours for it to copy across and then starting it.

For the clip sales business (R3el. com), we have to turn it around very fast, particularly for 2K, and the R&S®SpycerBox Ultra TL gives us that extra edge.

We wanted to get it right from the beginning, and knowing the high-end kit we had with the Scanity and the Nucodas, buying cheap storage was not an option."

Gerry Gedge: "We had cheap storage at the last company. It was a constant battle to keep it running, with drives failing and the systems locking up and needing to be rebooted multiple times a week, sometimes multiple times a day. It was very frustrating, very time-consuming. The reliability the R&S®SpycerBox Ultra TL devices give us is just amazing.

In two years we've had one drive failure, which was repaired the same day. It slowed down a little bit while they were rebuilding it, and then you would never have known. The cost of ownership has been very low.

The installations both ran smoothly. The first one was when we started, and the second took half a day. It was a painless, simple process."

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> **Jo Griffin, Chief Operating Officer at R3store Studios and R3el.com**

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