

Case Study: Darrick Wood School

Darrick Wood School, utilises Casio LED Short Throw Projectors to crystallize lessons

Darrick Wood School is an Academy and Specialist Technology College based in Kent with an enviable record of outstanding achievements and consistently high standards. The School which is oversubscribed each year for places has 1700 pupils, 250 staff and a thriving sixth form of 300. The Academy retains a reputation for excelling in Mathematics, Sciences and IT subjects ably delivered via the Academy's advanced technology infrastructure. To facilitate this optimal learning environment in technology subjects, the Academy was and remains an early adopter of classroom IT & Audio Visual advances. Since 2003, each of the 70 classrooms and learning zones were equipped with an interactive whiteboard and standard LCD projectors,

Key features

- Lamp-free
- 60" screen from just 80cm
- Intelligent Brightness Control
- 3000 ANSI lumens
- XGA resolution
- HD ready
- Quick start and stop
- Free Creston Roomview Express® control software available
- Extensive connectivity options, including LAN, WLAN and USB
- Can be retrofitted to existing installations



through which teachers could deliver laptop driven class work. But, with the projectors reaching over a decade of life span, the quality of the light source was degrading to a point of no return.

Mike Slater is the Academy's Network & Procurement Manager, supported by a busy team of five IT Technicians who service and support the entire infrastructure. Mike's role and passion is to ensure that staff and pupils have access to an optimal learning environment. He takes up the story of the ageing and degrading classroom projectors, first highlighted in the Mathematics Department. *"It was becoming so challenging to deliver complex mathematical equations successfully with the pin-point detail that is required, when teachers and pupils were struggling to see their workings. Throughout the department, full blackout blinds were required and in many cases, the lights had to be completely switched off, which made for a challenging start to some lessons!"*

It wasn't as if the projectors were not properly maintained and lamps regularly replaced. The Academy adopted an ongoing regime of changing lamps consistently in order to increase the picture sharpness. However, even after changing the lamp, degradation was immediate and the picture never improved to the initial clarity of the original 1000 ANSI lumens. The Academy was simply fighting a losing battle and one which cost £200 for replacement of each lamp. It wasn't just the cost that had to be factored in for the Academy. Physical replacement of lamps had to be conducted outside of lesson time, as most of the

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Mike Slater, Network & Procurement Manager



projectors are ceiling mounted and involved technicians climbing ladders. Regularly, even when a projector had been reported as being sub-optimal, some classes would be disadvantaged without the use of a projector all day. In other classrooms, where the projectors were working, teachers were wasting valuable lesson time in an attempt to darken the room to alleviate blind spots.

They also had to remember to allow enough time for the lamp to warm up; and importantly, at least five minutes to cool down before the end of each lesson. Frequently, teachers would avoid this 'lag' in lesson time by leaving the projector switched on for the next class, and albeit with good intent, sometimes this meant projectors were innocently left on all weekend.

That's not a great proposition for the Academy's AV budget with replacement lamps lasting less than 1000 hours. Hence, with all ten Math's classrooms reaching sub-optimal viewing experience and with the Head Teacher of the Academy requiring a new portable projector, Mike contacted their trusted AV supplier, CDEC, to recommend an alternative since their mass purchase of conventional projectors ten years prior.

They recommended that the Academy consider a radical alternative lamp free technology that provides outstanding quality but comes with a low total cost of ownership. CDEC outlined to the team how manufacturers such as Casio had begun to pioneer the use of LED technology within the classroom to provide affordable crystal clear images,

with no lamp to change or filters required. They arranged for Mike to have a hands-on demo of a Casio hybrid Laser/LED Green Slim portable prototype projector at the BETT Learning Technology Education Show.

Mike was immediately impressed at the projectors' compact size, instant start up/shut down capability and low power requirements. An initial order of 10 Casio XJ-Short Throw projectors was placed for the Maths department along with a Casio A4 slimline Green Slim for portable presentations and installation commenced into the existing classroom mounts.

Mike notes. *“We had seen the LED projectors at prototype stage, so usually there would be concerns for ordering new, cutting edge technology, but in this instance, the business case was so compelling driving out the cost of replacement lamps and producing such crystal sharp images and lessons to boot, that we had no reservations.”*

He reflects: *“Indeed, in line with Mike's prediction, the installed projectors proved to be an instant hit within the Maths department with teachers immediately reporting back that they could finally properly display their calculations clearly to the class. On a personal level, they also reported that the projector glare that used to dog each lesson had all but vanished. Mike laughs, “You know*

it's a successful installation when Math's teachers send us chocolates in gratitude of reduction of classroom fatigue and heat from the projectors. It was no longer their eyes that were subject to the blinding spotlight – just their crystal clear lessons"

With deployment of the Maths department finished, the Academy progressed with a phased implementation of 20 further Casio XJ-Short Throw projectors. The results have been nothing short of outstanding.

Results:

From a resource management perspective, adopting a filter free option has saved at least two technicians an afternoon per week out of school hours trying to clean dust filters, which was rarely effective, especially in dust intensive environments such as the DT Labs or Art Labs. Mike notes; *"Decreasing any ineffective ladder time for the team is a major bonus. With the Casio XJ-ST models, we simply have no maintenance or lamp changes. That's a significant boost."*

Unusually, the Academy falls in an area that experiences irregular and random power fluctuations and sometimes has complete cuts in electricity. Such power cuts instantly inhibit the standard cool down time of 5-10 minutes causing lamps to blow on the previous projectors. Again, with LED technology, there is no lamp or associated warm up/cool down time, so the Casio XJ simply resumes with the power. It is also proven to be less power consuming, 75% less, in fact, than conventional projectors, using just 1 watt of electricity in standby.

Each Casio XJ-Short Throw projector arrived at the Academy backed with a 5 year, 10,000 hours brightness retention warranty giving the Academy full peace of mind that their investment is protected for around 20 years seamlessly delivering 3500 ANSI lumens with pin point colour and accuracy being maintained throughout each and every day of deployment.

With over 70 classrooms with varying light conditions throughout, the Casio XJ features a seamless intelligent brightness control which automatically adjusts to suit individual lighting conditions whether in the Academy theatre or Science Labs. Mike's team have been thrilled with the serviceability of the Casio projectors *"It's new cutting edge technology, so you can never be entirely sure of durability but not one failure of a Casio XJ projector has occurred."*

The Academy has just ordered an additional 40 Casio XJ-ST projectors to complete the total installation.

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