

AVerVision355AF Visualizer Speeds up Results for Motorsport Engineers

– Wiltshire College, Castle Combe, UK –



The Wiltshire College facility at Castle Combe is a purpose built training center, delivering motorsports engineering qualifications within the setting of a live motor racing circuit. Students based at the Castle Combe facility are enrolled on Level 5/6 Foundation Degree and BSc (Hons) programs validated by the University of Bath in the UK. In addition, BTEC Level 2 and Level 3 Motorsport Engineering Programs are delivered at the Lackham Campus with students from this campus using the specialist facilities at Castle Combe, as required.

Preparing Students for Life after University



A priority identified by the motorsports instruction team was the integration of workshop skills with theory based lessons, which is just as valid at Level 5 as it is at Level 2. The team knew from their own experience and close contact with the industry that real-world employers are concerned by the lack of practical application demonstrated by many graduate engineers leaving university. The introduction of the AVerVision355AF visualizer (document camera) to

the motorsports program at Castle Combe has been of considerable help in rectifying this issue.

The AVerVision355AF's excellent image quality and superb magnification enabled the instructors to use it in the classroom to present clear images of normally difficult to see circuit boards, engine & data acquisition sensors, suspension damper valve components and other intricate racecar components. All these components tend to be small, expensive items (often removed from a racecar in the workshop) that are difficult to replace and not suitable for viewing or handling by a group of students under normal circumstances.

“The portability and performance of the AVerVision355AF visualizer means that demonstrations can be recorded as and when cars and components become available”

-Mr. Andy Jenkins, Race Team Manager, Wiltshire College-



Building a Library of In-class Recordings



The fact that the AVerVision355AF can capture quality video and live audio through its built-in microphone and automatically save it to a USB flash drive enables the instructors to turn spur of the moment instruction into a valuable teaching resource to be reused in future lessons and/or at other campuses. All the while, the component focused on during the demonstration has not been removed from the racecar or bothered in any way, so it's ready to hit the track as soon

as the teacher is done with the lesson. The portability of the AVerVision355AF enables it to be used in the workshop to record practical demonstrations taking place both on the vehicles and on the work bench. The team at Castle Combe took advantage of the freedom the AVerVision355AF offers to record damper rebuild procedures, which tend to involve a large number of small components, and gearbox gear-ratio changes. The latter demonstration was carried out by a BSc (Hons) student, to be viewed by Year 1 Degree students, bringing the added impact of peer tutoring to the learning process.

Shifting Instruction into Top Gear

Andy Jenkins, the Race Team Manager at Wiltshire College commented, "We have always had the problem of carrying out effective demonstrations in the workshop to relatively large groups of students and when we split them into a number of smaller groups, and have to repeat the demonstration, this significantly extends the time scale. Running an active racing program here at Castle Combe means we have to balance the operation of the race team with the academic requirements of the courses; the portability and performance of the AVerVision355AF visualizer means that demonstrations can be recorded as and when cars and components become available."

At the Lackham campus, the AVerVision355AF visualizer (document camera) has been used to assess student work. For example, when Level 2 students were asked to carry out a soldering exercise on circuit boards, the AVerVision355AF was brought into the classroom to show the exercise in real-time, enabling the group, as a whole, to assess individual work. The teaching team recognizes the benefits and importance of implementing presentation technology to enhance the students' learning experience, regularly expanding their use of the AVerVision355AF visualizer (document camera) to build up a "library" of presentations. All in all, incorporating the AVerVision355AF into their daily routine has turned out to be a cost-effective, yet high quality solution for Wiltshire College.

AVer would like to thank Wiltshire College and AVer's UK partners for providing this case study.

