



CBT - Maintenance Training

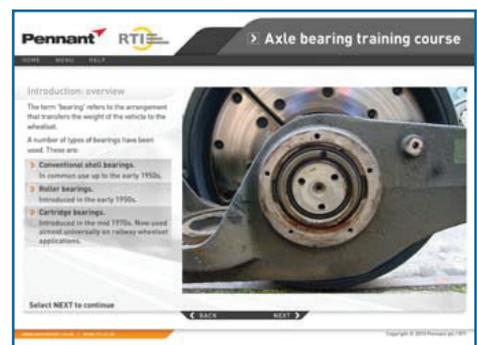
In collaboration with Rail Training International (RTI), Pennant designed and created this depot maintenance training product as 'proof of concept' for the use of high resolution 3D graphics and Unity3 gaming technology. The product was designed to be used within a blended learning solution, but could equally be incorporated into a self-paced program or instructor-led courseware.

The design concept was to deliver a package of pre-learning which provides background information, engineering principles and depot maintenance operations for hub bearings. Source material comprised no more than the traditional maintenance manuals and digital photographs – from which the base 3D model of the hub bearing was generated.

The high fidelity Unity3 graphics provide the user with a high level of interaction, allowing assemblies to be dismantled and individual components to be rotated and examined on screen – with the user driving the graphics. Graphical rendering techniques provide highly realistic imagery, allowing the user to investigate areas which may not be accessible in the real world. This explore/discover approach to learning is proving highly effective in the delivery of engineering principles and maintenance processes.

In addition to the explore / discover sections, the courseware includes a number of interactive maintenance exercises, such as measuring hub end float. The student must carry out the procedure correctly, selecting the appropriate tools, and calculate the end float value. If an incorrect action is taken, guidance can be provided. Alternatively, the exercise could be used in an end-of-course test. This approach allows the user to build experience, competence and confidence before working on full size equipment in the yard environment and is particularly useful in teaching procedures with a high degree of inherent danger.

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What do our customers say?

Our collaboration together has been excellent on this project. Pennant's approach has been flexible, patient and informative, as a degree of hand holding was required. A very professional company to work together with.