

Les White ***Innovative Achievement Award***



Mr. Les White retired in 2004 from CAE, after 35 years of service. Through his accomplishments, he left an ever-lasting imprint on CAE, its successor organization L3Harris, and all of their engineers. With his vision and leadership, Mr. White introduced an impactful innovation in the development of nuclear power plant simulators – the use of graphical object-based simulation remaining the industry standard today for the development of nuclear plant training simulators. Nuclear plant training simulators accurately replicate the control room hardware of a nuclear generating unit as well as the real time response of the unit under normal, abnormal and emergency conditions.

A pioneer in nuclear power plant simulators, Mr. White developed software models for the Pickering Nuclear Generating Station A (NGS-A) simulator starting in 1973, and was the project engineer through to implementation in 1976. This involved developing many computing capabilities from scratch. The evolution continued with the development of the simulators for Bruce A, Bruce B, Darlington, Point Lepreau, and Gentilly stations.

In the late 1980s, he introduced a vision to develop nuclear power plant simulations with a graphical, object-based simulation environment—something that had never been done before – and spearheaded its development. In 1991, that vision became ROSE® - the Real-time Object-oriented Simulation Environment. This innovation resolved the primary three challenges with simulator development: long timelines, inconsistent depth of simulation, and the inability to easily make changes or update the systems to reflect the plant. Today, the product is known as Orchid® Modelling Environment and remains L3Harris’ flagship software environment for developing CANDU, Light Water Reactor, Gas Cooled Reactor and Small Modular Reactor plant simulators globally.