

LARNS: A Powerful Model and Software Package for the Simulation of Local Area Ring Networks

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Abstract

LARNS is a powerful computer simulation model for the representation of local area ring networks. A software package that implements the LARNS model has been written. The LARNS model has been designed so that it can represent the various standard ring network protocols, slotted rings, insertion rings and token rings, as well as hybrid schemes. The performance of the TORNET ring, a local area network under development at the University of Toronto is analyzed using the LARNS model and software.

In this paper, the LARNS model is described in detail and the software implementation is documented. The TORNET ring is analyzed as a case study, demonstrating the power and flexibility of the LARNS model.