

MDA Space

“MapuSoft’s RTOS Simulator was used to re-host Satellite Radar Space Applications from VxWorks® to Linux® for Training and Testing by Ground based Simulators”

THE PROJECT:

CHORUS Satellite Flight Software running on VxWorks needed to be re-compiled as-is to run on a Linux based Simulator

RTOS SIMULATOR

Problem

The MDA CHORUS® Satellite Simulator Application that simulates the in-orbit operational behavior of CHORUS Mission Mission is running in Space over a real-time VxWorks target. MDA Space needed the same application software to run over a Linux based host machine on the ground as a simulator. The real-time behavior of the application running on the simulator should be very close to the original application running on the satellite

MapuSoft Solution:

RTOS Simulator is used worldwide as a virtual platform by mission critical embedded software developers to create a training simulator of their actual applications over Windows/Linux PC. RTOS Simulator provides a virtualized RTOS Environment for development and testing of embedded applications over an inexpensive x86-based host running Windows or Linux operating systems. RTOS Simulator’s abstraction technology creates a seamless separator from the application code to the operating system, minimizing any application switching or upgrading costs when switching the OS. It promotes code re-use by allowing the same code to be shared across host, target, and operating systems.

Testimonial:

“We’ve trusted RTOS Simulator in building mission critical space software for over 10 years. When re-hosting mission critical space software to a training simulator, RTOS Simulator was key to getting the software to run with minimal changes. This ensured a high fidelity, true to life simulation for operator training, procedure development and mission dress rehearsals. MapuSoft has provided excellent technical and customer support. Their team’s responsiveness and expertise have been invaluable in swiftly tackling the challenging technical problems we faced.”

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ABOUT MDA Space

MDA Space is a trusted mission partner to the rapidly expanding global space industry. MDA Space supports industries, organizations, and governments around the world whose missions involve detecting and monitoring changes caused by human and natural activities on and around Earth. MDA Space has over 40 years of mission-tested experience developing, supporting, and operating equipment for NASA and the International Space Station. MDA Space employs over 3,000 space engineers, scientists, technicians, and business leaders.