Importing NPSI Data:
Using Reprogrammable Converters To Greet the age of Standardization

PRIMARY AUTHOR
Brian Vacek

ADDITIONAL AUTHORS
Ryan Franz, Lori Sabo

ABSTRACT

The field of aviation simulation has been slow to reach a "tipping point" regarding database format standards, but efforts such as the US Navy's Portable Source Initiative (NPSI) and the Common Database specification (CDB) are gaining momentum. There is mounting demand to see content data, image generation software and physical simulator hardware become fully independent markets. Customers expect to buy components from different vendors and have them work together with a minimum of hassle, like playing movies from multiple sources on the same device.

This paper examines the way data format standards are altering the industry's ecosystem, with an emphasis on the data interoperability and conversion issues now facing aviation simulation content providers, including:

· Supporting NPSI and other standard formats.

· Freeing data trapped in proprietary formats.

· Upgrading legacy content.

· Correlating between formats.

· Preparing for new formats that may yet arise.

FlightSafety's experience importing NPSI data to run on the VITAL 1100 IG is taken as a case study. The development of a reprogrammable converter is examined as a method of future-proofing against an era with increasing demand for data conversions, while effectively managing cost and complexity.

BIO

PRIMARY AUTHOR

Brian Vacek is a principal software engineer with FlightSafety International, specializing in AOI modeling software and usability. He leads development teams focused on vector modeling processes and large scale data conversions. Mr. Vacek also serves as an internal communications liaison responsible for teammate satisfaction and data analysis. Outside of the aviation simulation, Mr. Vacek writes academic and general interest work on film and media, including an atlas of world cinema.