

Mercury Collaborates with a Leading Defense Contractor to Implement Reference Design Development Method for Their High-Performance Application

Integrating FPGAs and PowerPCs Results in an Affordable, Best-Value Solution

Situation: Using Heterogeneous Processors on a Single Board

A leading defense contractor had a project that required a critical component implemented on a digital processing computer board. This board controlled the imaging radar and laser sensors for the system. The company originally considered building its own custom board. They knew they needed to use field-programmable gate arrays (FPGAs) and PowerPC® processors together on the board. They decided to call upon Mercury's proven strength in integrating FPGAs with PowerPCs in COTS systems.

What Mercury Provided

After Mercury met with the company's engineering team to discuss the requirements for this board, they realized that the VantageRT® board, already in production, would be a close fit for the functionality they needed, but it was in a PCI form factor. The company needed a board in a custom form factor, so Mercury took the components of the VantageRT board and used them as a "reference design" for the custom form factor required for the project.

Results

By using the reference design development method, Mercury was able to speed up the company's development time. The resulting board was significantly less expensive than if it had been built without Mercury's expertise, helping to make the product an affordable, best-value solution for their military customers. The success of this project was due largely to the close cooperation between the two engineering teams to turn this collaborative design into a reality.

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