RAPID PROTOTYPING FOR MIL-STD-1553

MIL-STD-1553 interface cards for test, simulation and embedded applications typically are supplied with some form of an API (application programming interface) for C or C++ which enables users to write application specific software within their programming environment. The programming environment is selected by each user, so the challenge is for software engineers and developers to quickly become familiar with the specific programming structure and API calls offered by the 1553 manufacturer. All operational modes will need to be programmed including Bus Controller, Multiple Remote Terminals, Monitoring and other general features like Bus Coupling and more.

This task has just become simplified using a smart approach called Auto C-Code Generation. This advanced capability is implemented using the PBA.pro Databus Test and Analysis Software in conjunction with the test and script manager option.

For example, bus controller messages, RT simulations and monitor functions are easily created with the high-level graphic user interface of PBA.pro. At a push of a button, these set-ups are converted to AIM API compatible 'C' source code files which are ready for compilation and creation of an executable program.

The C-Code generated can be re-used to simply set-up the MIL-STD-1553 card from an external customer application and of course edited for each customer specific need. This allows application developers the luxury to create programs for rapid prototyping, debugging, maintenance, familiarization and are an excellent training aid for the API interface.

In conclusion, by using the above-described tool chain with AIM's MIL-STD-1553 cards can significantly shorten and speed with development time for MIL-STD-1553 customer specific applications and guarantee success. \\