

## Flash Programming System for Networked Processor Cards

Written by The Hitex Design Group

TurboPowerSystems have long been a client of Hitex Design, being the original client for the Hitex HiMOD TC1796 Applications Module and MMTC1766 TriCore MiniModule. One of their installations for the MMTC1766 MiniModule involves three such modules, connected together via a CAN network. All modules are accessible through a standard RS232 serial link during the development phase, but once deployed only one of these modules, the “gateway” module, is accessible in this way.

TurboPowerSystems therefore needed a service engineer’s application which would allow them either direct access to a module, or access to all modules on a CAN network via the gateway module. Hitex’s experience in Flash programmers, bootloaders and LabVIEW GUI development allowed us to rapidly prototype a system to accomplish this, and subsequently polish it to the standards of a professional application deployment system.

Once connected to the embedded modules, it will interrogate them and determine the current version of software installed (if any). It can then program a different code image onto any of the modules transparently with no further configuration or manual resetting required. Once completed, the modules will be rebooted into their normal application.

The application is also ready for future expansion into access via TCP/IP if required.

The embedded software required a self-contained bootloader, which handles all inter-processor communication and control. Hitex developed a support library which allows TurboPowerSystems’ own application to reset the modules into bootloader mode when instructed to do so, for instance from the Flash Programming System GUI.



### Find out more

This application is available on request, together with customisation services whereby we can modify the logo and colour scheme. We welcome any enquiries on this software and are happy to undertake similar work or further customisation. Please contact the team directly to find out more...