DAVE Module

- ATLAS-SCT have developed a new ATLAS trigger card, ‘Digital Atlas VME Electronics’ ("DAVE")
- The unit was designed to provide a versatile array of interface and logic resources, including a large FPGA and NIM signalling
- Interfaces to both VME bus and USB hosts
- Originally planned as replacement for ATLAS-SCT stand-alone trigger & veto logic NIM crate
- Many more generic features added to the design
- Re-used ATLAS CTP firmware to exactly duplicate ATLAS running condition
- Random trigger, simple and complex deadtime, ECR, BCR, etc., are being generated to give exactly the same conditions in standalone running as experienced in combined runs
- DAVE card thus evolved into a powerful and flexible logic module
- Potentially useful to all ATLAS subsystems as well as for other non-ATLAS users (FPGA with NIM I/O, programmable delays)

Firmware is developed in a modular fashion allowing code contributions from interested users

Requirements for CTP-like triggers have been implemented

Further development will aim to provide ECR generation, source/sink RAM, trigger history and trigger type generation

FOR MORE INFORMATION SEE:
https://twiki.cern.ch/twiki/bin/viewauth/Atlas/DAVEUserGuide