

# A Software Package for Mass Spectrometer System Operation, Trouble Shooting and Prototyping

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C.R. ARKIN, C. CURLEY, D. FLOYD, D. LUCAS

*Engineering Services Contract, Kennedy Space Center, FL*

A PC-based software program has been controlling the mass spectrometer systems used to launch the Space Shuttle since 2000. This software program has expanded to support several mass spectrometer systems since that time; however, the software was designed to interface with an embedded computer system which perform the command and data acquisition. Recently this software package was ported such that only a PC is required, and has expanded in flexibility to interface with a variety of mass spectrometer system end items such as mass analyzers, turbo pumps, ion gauges, mass flow controllers, pressure transducers, and the like. This software package, known as the Analyzer Control System (ACS), integrates a variety of end items into a single user interface allowing consistent data presentation, real-time data manipulation (view data in parts-per-million, etc), integrated data storage with consistent time stamps, timed events via scripting and much more.