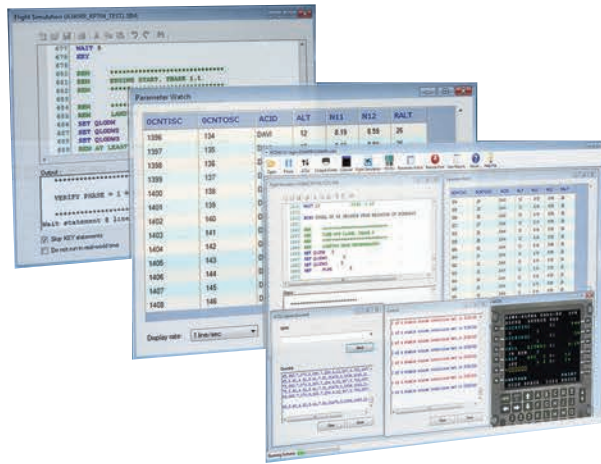# ACMS TESTER™

Test and Verify ACMS Applications on Your PC Before Uploading to the Aircraft

Teledyne Controls' ACMS Tester™ is a PC-based solution to test and verify the functionalities of ACMS applications prior to loading them onto a Teledyne data acquisition unit (DMU, iDMU, FDIMU, etc.). Through a highly intuitive and easy-to-use interface, the software simulates the environment of the data acquisition unit, allowing the user to test the customized ACMS applications, and instantly verify the ACMS changes before loading them to the equipment. This solution results in significant time and cost savings.

With the ACMS Tester, operators can compose and run scenario files to simulate events, trigger reports and generate recording files. They can also send uplink commands and navigate through MCDU screens via a user-friendly, Windows-based interface that can create the equivalent of a full ACMS lab test station.

The ACMS Tester relies on ACMS application build files that are generated by the Teledyne AGS IV or AGS95 software tool. In addition, the ACMS Tester depends on the user's PC TSS, (Target System Software), which can be obtained through Teledyne for each of its data acquisition units.

ACMS Tester™ Key Features

- A sophisticated tool to instantly verify ACMS changes
- The equivalent of a full ACMS lab test station
- Easy installation on Windows-based PC
- Simulation of real-world flight conditions using scenario files
- Multiple, simultaneous window viewing (MCDU, Printer, Downlinks, etc.)
- Remote print capability at the current flight phase
- Verification of recording maps and report formats
- User-friendly and easy-to-use

User Programmability

- **Parameter Watch**

 Parameter Watch is a debugging tool to view parameters and set stop conditions.

The user can export the file and save it as an Excel file. The Clear button clears the screen, but allows the continued monitoring of the parameters. The user may also change the display rate by selecting the rate of his/her choice from the down menu.

- **Flight Simulation**

  The Flight Simulation tool allows a user to verify the software functionality of a Data Management Unit (DMU) by simulating real-world flight conditions using scenario files.
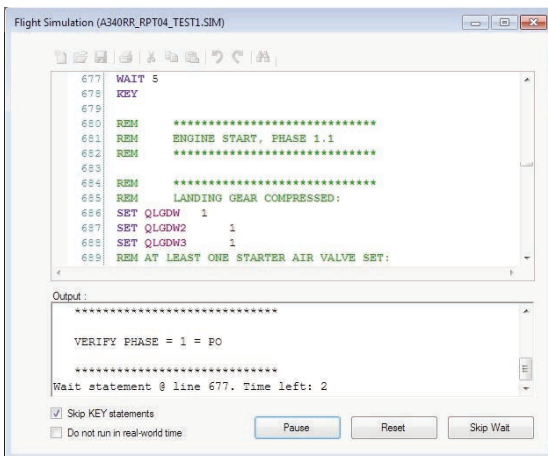
The Flight Simulation tool simulates flight profiles by replicating ARINC 429 Digital Information Transfer System (DITS) parameters. It orchestrates the emulation of the hardware complement in real-time, schedules parameter updates, and carries out operator requests and queries.

The Flight Simulation interface contains two windows. The top is the command window, which displays the scenario being run. The bottom is the output window, which displays echo and key statements, as well as time remaining in a wait statement.

- **MCDU**

  The MCDU is the primary display device for the ACMS application and consists of: 12 line select keys (6 left and 6 right), an alphanumeric keypad, function keys, ACMS online help keys, scroll left and right keys, next page/previous page keys, and scratchpad. Select menus may be password-protected, but can still be viewed as read-only.

The MCDU communicates with the Flight Simulation, Cockpit Printer, ATSU/ACARS and Remote Print functions of the ACMS Tester™. MCDU screens will vary between ACMS applications and Units Under Test.