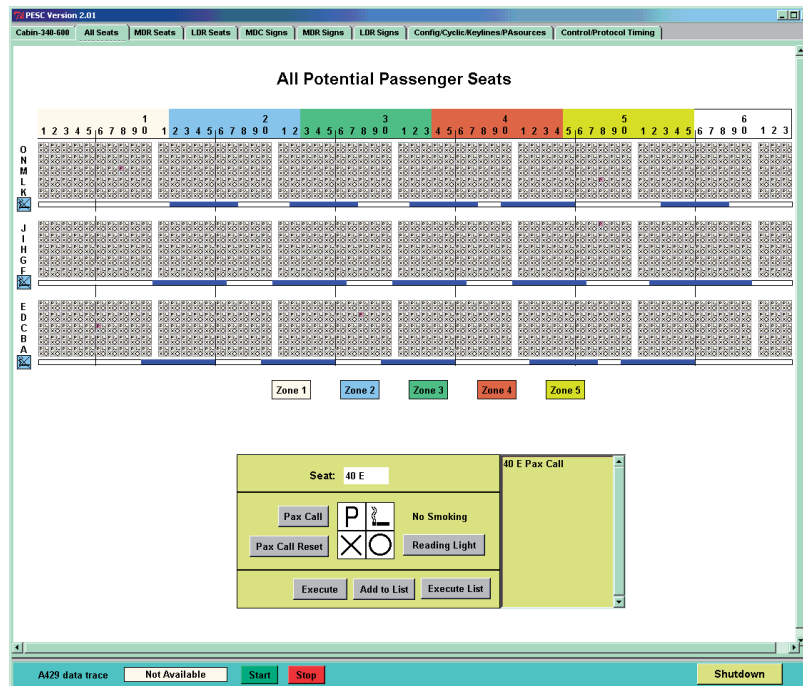


PESC340-500/600 Airbus A340-500/600 PES Controller Simulation



- Flexible configuration
- Accurate simulation of the A429 data traffic
- Optional recording of the A429 data traffic
- Optional hardware emulation of the keylines



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Application Scope

The PESC340-600 simulation program, which simulates the behavior of a Passenger Entertainment System (PES) Controller head end equipment, is used to test and validate the data exchange to and from the Cabin Intercommunication Data System (CIDS) Director serving as UUT. The PESC simulation supports the following main functions:

- > Loading of PCU information from a file
- > Exchange of cabin layout data
- > Transmission of service requests to CIDS
- > Reception of update requests from CIDS
- > Monitoring of cyclic labels and protocol
- > Optional full ARINC 429 data logging
- > Protocol error stimulation

The simulation is implemented in the platform-independent TCL/Tk script language. Presently, there are versions for the following software and hardware platforms:

- > Windows XP / 2000/ ME / NT / 98
- > A429 hardware PCI, EPC (ISA-BUS) or PCC (PCMCIA)

GUI Overview

The PESC simulation application is comprised of a set of control, configuration & display panels, all integrated in a single container window. The bottom section contains controls to terminate the PESC simulation and to start and stop the PESC recording file.

In the following each of the panels will be presented in brief.

Cabin 340-600 – This interactive panel shows a typical A340-600 passenger cabin layout, comprising 63 rows with up to 6 seats each, arranged in 5 color-coded zones. Non-smoking zones are indicated by blue bars. At startup the header and zoning data is retrieved from the cids.cfg configuration file.

The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons.

The cabin layout diagram is color-coded reflecting the current PCU states for each seat. It is also interactive, that is, each seat can be clicked. The associated PCU states are then displayed in the PCU control panel.

All Seats – This interactive panel shows a theoretical cabin layout, comprising a maximum of 63 rows with 15 seats each arranged in 5 zones. The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons.

MDR Seats – This interactive panel shows the Main Deck Rooms layout. The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons.

LDR Seats – This interactive panel shows the Lower Deck Rooms layout. The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons.

MDC Signs – The Main Deck Cabin Signs panel displays the current states of the Signs, Alerts, and Illumination Modes as set by the CIDS director for the various zones (1 through 5).

MDR Signs – The Main Deck Rooms Signs panel displays the current states of the Signs, Alerts, Illumination Modes, and Compartment Status as set by the CIDS director for the various rooms (1 through 8).

LDR Signs – The Lower Deck Rooms Signs panel displays the current states of the Signs, Alerts, Illumination Modes, and Compartment Status as set by the CIDS director for the various rooms (1 through 8).

Config/Cyclic/Keylines/ PAsources – This panel is used to:

- > set protocol characteristics
- > select the equipment ID
- > define the protocol timing
- > indicate the update rate for all cyclic labels sent by CIDS
- > indicate the PA Sources
- > set the PESC Output Keylines
- > display the status of the Input Keylines

Control / Protocol Timing – This panel is used to:

- > issue PESC enquiries to CIDS (Header, Main Deck Cabin Zone, Maindeck No Smoking Zone) (one shot)
- > submit Main Deck PAX Call Reset to CIDS per zone / room
- > submit Lower Deck PAX Call Reset to CIDS per room (one shot)
- > submit General Status PESC data to CIDS (cyclic)
- > display the Header Data as received from CIDS
- > display the General Status CIDS data
- > display the Equipment ID and Version ID as received from CIDS
- > display the Protocol Status and Protocol Timing for Header, Zone, NS-Zone
- > display the duration of complete layout exchange