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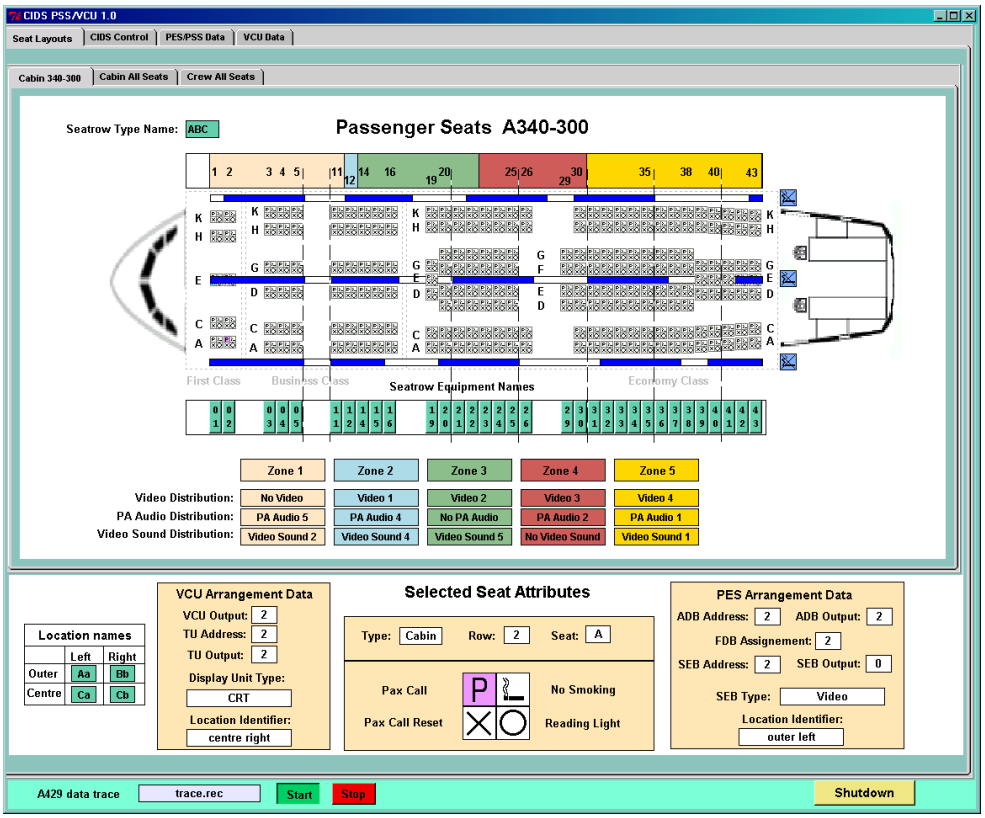
complexity

CIDS340-200/300

Airbus A340-200/300
CIDS Director Simulation



- Flexible configuration
- Accurate simulation of the ARINC 429 data traffic
- Optional recording of the ARINC 429 data traffic
- Opional hardware emulation of the keylines

Data Sheet

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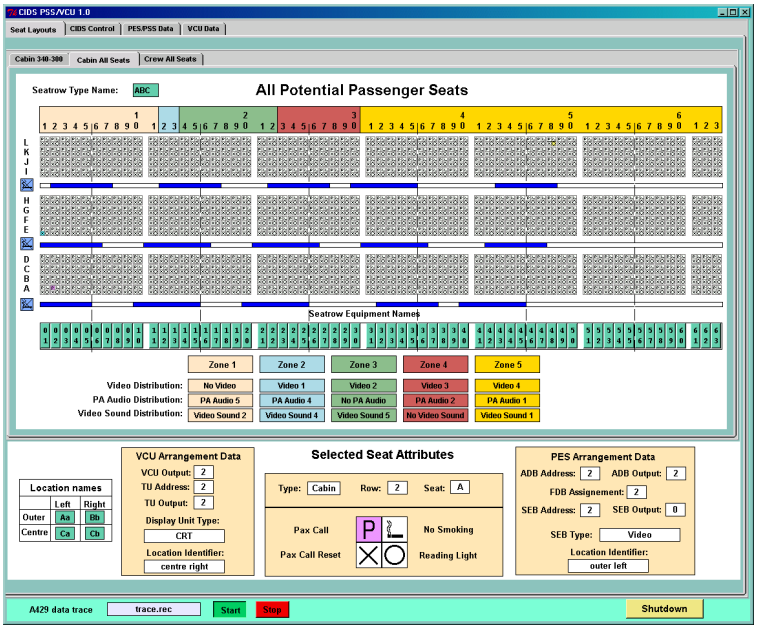
CIDS340-200/300
Airbus A340-200/300 CIDS Director Simulation

Application Scope

The **CIDS340-200/300** simulation program, which simulates the behavior of a Cabin Intercommunication Data System (CIDS) head end equipment, is used to test and validate the data exchange to and from the Passenger Entertainment System (PES) and/or the Video Control Unit (VCU) serving as UUT.



The CIDS simulation supports the following main functions:

- Loading of configuration data from files
- Exchange of cabin layout data
- Transmission of update requests to PESC/VCU
- Reception of service requests from PESC/VCU
- 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 10
- ARINC 429 interface options from TechSAT: 2 Tx/4Rx or 4 Tx/8 Rx channels A429-USB device

GUI Overview

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

Cabin 340-300 – This panel shows a typical A340-300 passenger cabin layout, comprising 43 rows with up to 8 seats each, arranged in 5 color-coded zones. The cabin layout diagram is color-coded reflecting the current PCU states per seat. It is also interactive, that is, each seat can be clicked. The associated seat data is then displayed in the lower seat info area.

All Seats – This panel shows a theoretical cabin layout, comprising a maximum of 63 rows with 12 seats each arranged in 5 zones. The panel allows for interactive seat selection.

Crew All Seats – This panel shows a potential Crew Rest area, comprising a maximum of 31 rows with 12 seats each, arranged in two zones. This panel also allows for interactive seat selection.

Below the seat display area, a display of the PESC and VCU-specific seat information is available.

CIDS Control – This panel contains interactive controls for changing various simulation parameters and CIDS periodic data. It also has controls for sending Update Enquiries to PESC or VCU, and controls allowing the re-loading of the layout data.

PES/PSS Data – This panel displays information about the PESC periodic labels. It also shows the timing results of all PESC Enquiries.

VCU Data – This panel displays information about the VCU periodic labels. It also shows the timing results of all VCU Enquiries.

Technical Data

Hardware Requirements

- 1 ARINC 429 interface - options are:
  - 2 Tx/4 Rx A429-USB device (PN 403557)
  - 4 Tx/8 Rx A429-USB device (PN 403568)

Optional Hardware

- Module for keyline support (PN 1010809)

Operating System Options

- Windows 10 32/64 bit

Part Number

- 202011

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