631
Enterprise Software Suite
Announcement Control System

Description

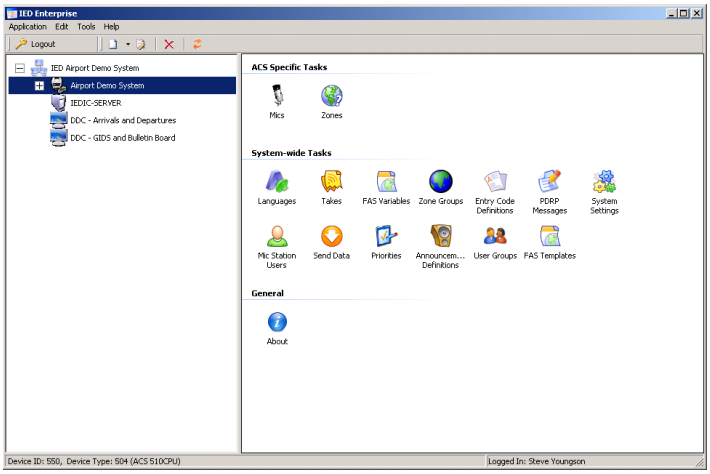
The IED0631 Enterprise Software Suite is a collection of software that forms the basis for systems using IED hardware such as the 510ACS, 505ACS or the Titan 9160 power amp frames. Optional software products may be added to the Enterprise base such as:

- IED0632 Flight Announcement System (FAS)
- IED0633 T-CAS Courtesy Announcement System
- IED067x PRIZM series of software modules

The Enterprise Suite provides three functions:

- **System Configuration** – Setup of IED hardware and system functions such as zone groups, pre-recorded messages and mic station user permissions. This includes necessary calibration steps for ambient analysis, and automated supervision (monitor/test).
- **System Monitoring** – Provide real-time visibility of system operation and overall health.
- **System Logging** – Provide logs of system activity such as announcement and user mic station log-ins, as well as fault or abnormal supervisory conditions.

Although the Enterprise Suite typically includes software for ambient analysis compensation, and fault logging (IED0635 and IED0645), versions of these modules are also available as separate IED products.



Enterprise Interface Window

Configuration Features

The system announcement controllers, such as the 510ACS, may be configured using Enterprise. This configuration includes the following setup:

- **Mic Stations** – Settings, such as the number of mic stations, each mic station's type, the functions available via that type (i.e., for fixed button models like the 500), and additional settings such as:

  Mic Station Location and Description – for user-friendly operation

  Mic Station Gate Assignment – for linking to flights (when the IED0633 Flight Announcement System product is installed)

  Mic Station Group and Company Assignment – for linking to an airline carrier (when IED0633 FAS is installed)

  Mic Station Permissions – for determining what classes of announcements can be initiated from a mic station (if mic station is not locked, otherwise the mic station user who logs in dynamically determines mic station's permissions)

- **Mic Station Users** – Configure who can log in, their password, their group/company (e.g., airline) membership, their preferred language (for multi-lingual capable mic stations) and their announcement control system permissions (what classes of announcements they can initiate).
- **Zones** – The audio, relay and visual outputs of the announcement control system. These outputs can be on 500D cards, 500DR cards, Titan amplifier frames, Titan relay boxes, or displays driven by PRIZM DDC (IED0676).
- **Zone Groups** – Collections of zones, along with an assigned entry code to use for making live pages, or for overriding the default zone group assigned to a pre-recorded message.
- **Pre-Recorded Messages (PDRP)** – These messages are comprised of one or more audio takes (segments of audio, like a phrase or word) assembled into one message. The messages have entry codes, priorities, and assigned user permission groups and default zone groups (collections of zones). Optionally, pre-recorded messages can have repeat play properties (number of plays, and time between repeats). Pre-recorded messages can be initiated from a mic station via the entry code, or can be configured to play from a scheduler (time of day, days of the week). To support pre-record-

ed Messages, there are additional setup properties and tools available in Enterprise, such as:

Languages – Define what languages are used in this system.

Takes – Define all the pre-recorded audio segments available in the system, grouping them into categories for ease of access and management.

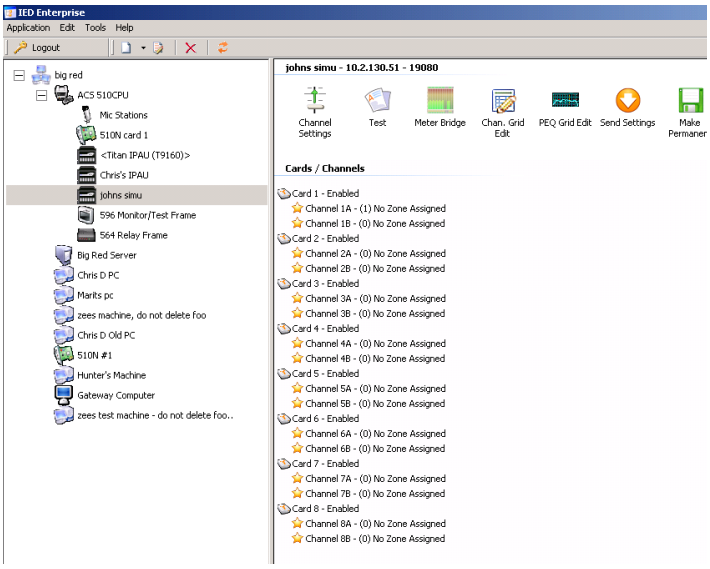
PDRP Editor – Allows users to record and edit their own takes and add them to the announcement control system library.

- **FAS Templates** – If the optional IED0632 Flight Announcement System (FAS) software is included in the system, then Enterprise can also be used to configure templates for pre-recorded messages. These templates provide messaging for flight status (e.g., delayed departure), gate changes, flight boarding/departures, baggage carrousel assignments, and other flight-related informational messages.

Each template utilizes a combination of variables, obtained via user-entry, or interface with the site's MUFIDS, or Airport Operations Database. Given the proper network connections, this auto-population of the FAS database allows all variables to be managed using the Enterprise Suite software.

- **Legacy Monitor/Test** – For systems with older IED0596 test point collector hardware, Enterprise supports configuring, calibrating and monitoring the test system, as well as allowing for users to listen to (monitor) individual test points.

- **Legacy Ambient Analysis** – For systems with older IED0540 ambient analysis system hardware, Enterprise provides tools for configuring, calibrating and monitoring the ambient analysis system.

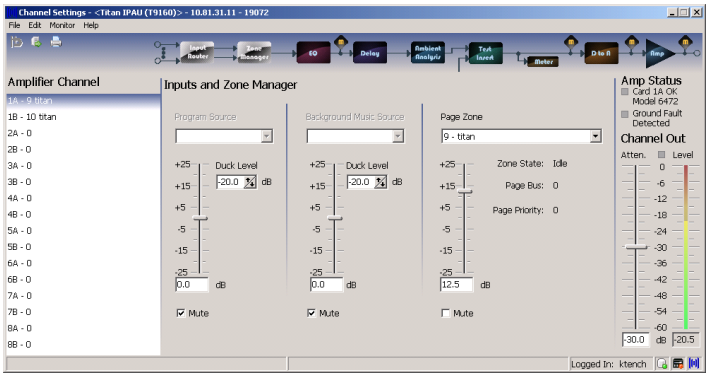


Enterprise Output Configuration

- **Other System Settings** – Enterprise also supports power-user configuration of other system settings, such as announcement controller priorities and classes.

Enterprise supports the configuration of key system components such as Titan power amp frame settings, including the following:

- **Channel Settings** – For each channel (output) of the Titan frame, the user can configure the following items:



Enterprise Titan IPAU Channel Settings

Program and BGM Assignments and Levels – Program, background music assignments, and user-configurable level settings available for each amplifier channel. Audio can be injected via direct input connectors on each Titan frame, or from CobraNet audio channels received over the network.

Zone Assignments – Announcement controller zones may be assigned to one or more channels in a Titan frame (e.g., so that Zone 3 activates outputs 4, 5 and 6)

Equalization – The audio on each Titan channel can be configured with its own 9-band parametric equalization.

Delay – The audio on each Titan channel can be configured for delay.

Ambient Analysis – Each Titan channel can be optionally configured for automatic ambient analysis level control. Configuration, calibration, and monitoring of the ambient analysis operations are achieved via the Enterprise Suite software.

Overall Channel Level – Overall channel level, current status, and ground fault detection are configured and reported in Enterprise Suite. In addition, the status of the amplifier and its ground fault detectors can be monitored utilizing VU-style meters.

- **Automated Testing** – The Titan frames are capable of automatically testing each amplifier channel's output, and their speaker lines. This function is achieved via the assignment and monitoring of test frequencies at selectable test points. The frequency of this automatic

testing is also user-selectable (periodic, or once-a-day). Calibration of the system allows for real-time readings to be compared with known good values. Real-time testing values that differ from the system set values will be reported to the system's fault logger program.

- **Grid Editing of Channels and EQ** – For power users, Enterprise includes features for bulk-editing of Titan channels and their equalization settings.

Monitoring Features

The IED0631 Enterprise Suite also has facilities for monitoring the real-time operation of the system and its hardware components. This monitoring includes the following:

- **Signal Levels in Titan Frames** – Using the Meter Bridge window, a user can simultaneously watch the signal levels of all 16 channels of a Titan frame. This includes amplifier status, and ground fault detection status indicators.
- **Monitor/Test** – Via the Monitor feature (either legacy 596 or Titan-based), the Enterprise user can listen to test points in the system to audibly detect audio issues such as pops or crackle. In addition, the user can retrieve and view results from the most recent automated tests.
- **Ambient Analysis Operation** – The Enterprise user can watch the real-time operation of the ambient analysis system (either legacy 540 or Titan based).
- **Announcements** – Via the Mics/Zones Monitor module, Enterprise users can view real-time announcement controller activity. This module also allows for accessing in-depth properties of each announcement, such as the announcement's priority, and zone group used.

Logging Features

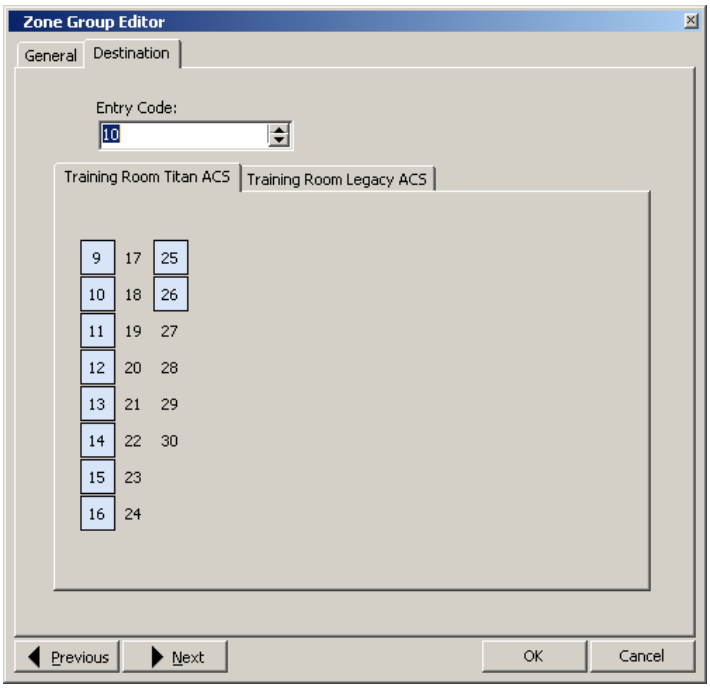
Enterprise Suite provides and maintains logs containing the following information:

- **Announcements** – Each announcement lists its properties such as duration, priority, origination point (e.g., from which mic station), zone group and more. Charts and graphs of key performance measures are also available.
- **Mic Security** – Offers the log-in or log-out activity of each mic station, as well as a full account of the mic station user account utilized, and the mic station's location.
- **User Activity** – User log-ins and activity within the Enterprise software such as configuration changes
- **Faults** – All built-in supervision of IED hardware, along with variances in the automated test results (outside tolerances) are logged as Faults for user review.

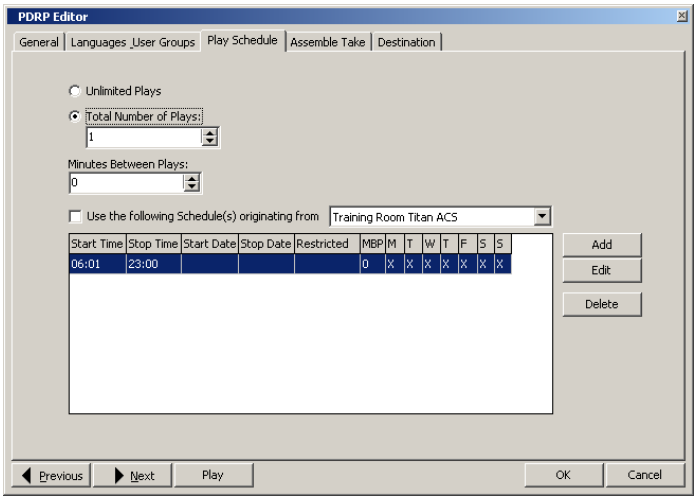
All logs are available to remote workstations via web pages hosted on the Enterprise server.

System Requirements

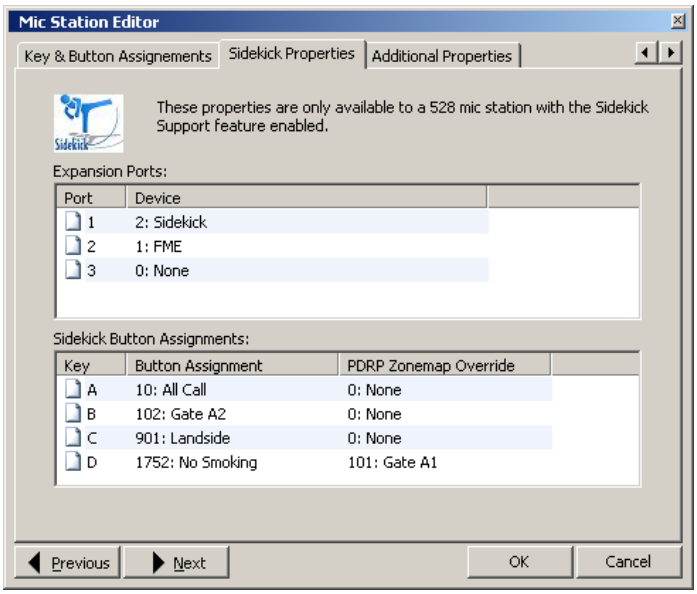
Enterprise requires a machine with Microsoft Windows (as of this writing, Windows Server 2003 or Windows XP), upon which Microsoft SQL Server or SQL Express (part number IED0634) has been installed. The version of windows or SQL that is appropriate, as well as the capabilities of the host computer (server), depends on the scale of the system. Variables such as the number of clients, the amount of real-time data exchange, or the complexity of the interface with an airport's operation database (AODB), are all factors. Consult IED Application Engineering or Sales before finalizing a computer, or third-party software choice. All of the above elements are available from IED, and can be provided as part of the integrated system.



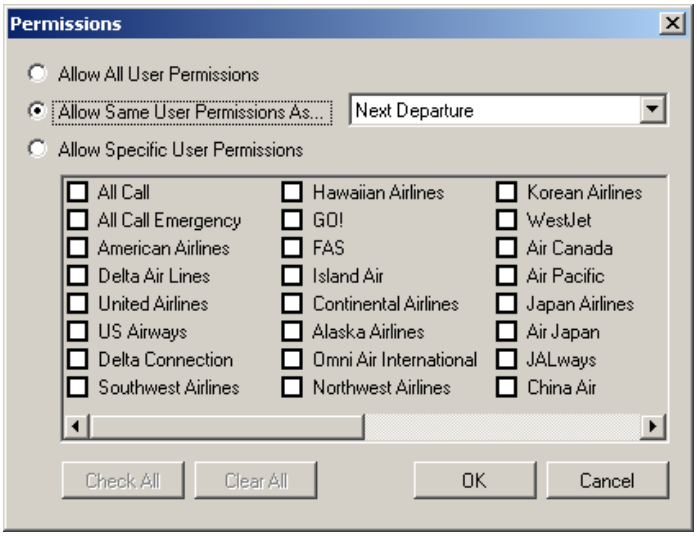
Enterprise Zone Group Editor



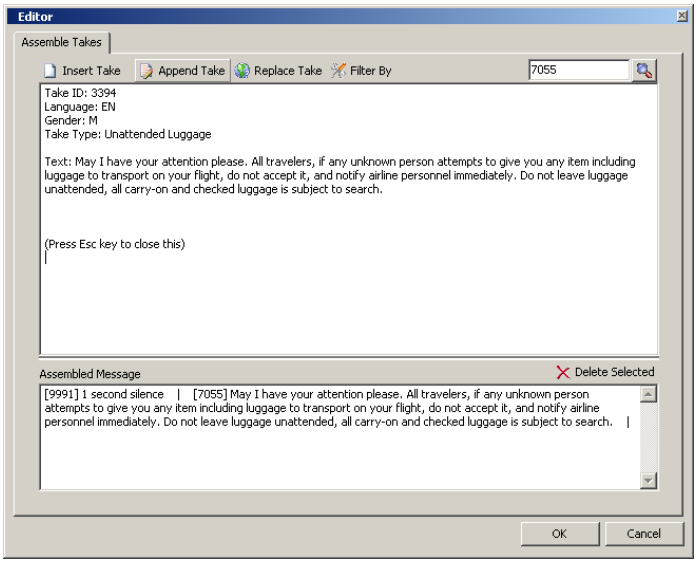
Scheduled PDRP Messages



Support for 4-button Side Kick Expansion Stations



Microphone Station User Permissions



Message Assembly

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