



Network Based Control Software

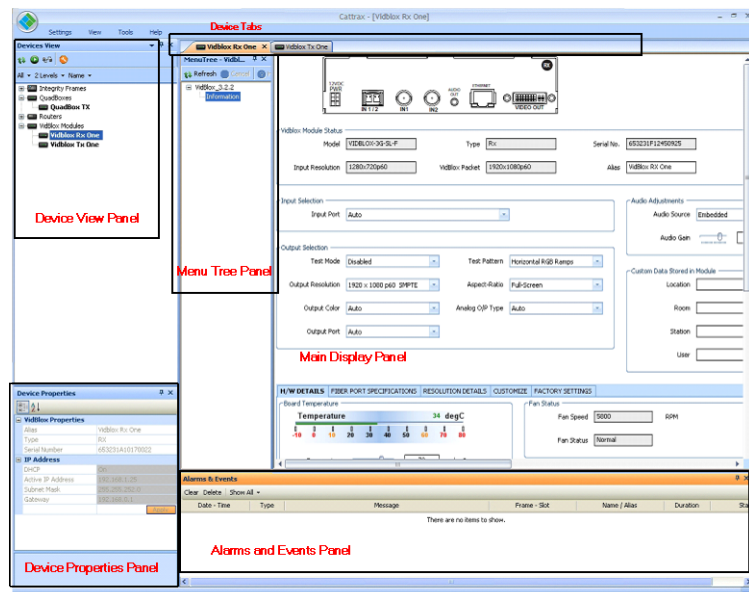
PESA's Cattrax is a system control software application for use on Microsoft Windows based platforms to configure, monitor and control a variety of PESA routing and signal processing equipment. It allows users to configure, retrieve real-time information and monitor the operational status of Cattrax supported devices such as PESA routers, control panels, QFX Series modules (Vidblox, Quadbox) and signal processing frames.

Cattrax communicates with managed devices over an Ethernet network through each host computer and may be installed on compatible PCs running the Microsoft Windows® XP, Windows 7, Windows 8.1 or Windows 10 operating system. It allows virtually any number of computers within a facility's local area network (LAN) to become full-featured controllers and status monitors for compatible PESA routing and signal processing devices in the facility. In addition, Cattrax can communicate with compatible off-network PESA devices, one at a time, using a USB port of the host PC. Network and USB connectivity may be used simultaneously.



Powerful Control with No Complex Learning Curve

Providing a powerful set of tools for each controlled PESA device in an intuitive, menu-driven format, the versatile Cattrax software application greatly enhances system integration possibilities for any PESA routing and signal processing installation. But despite its advanced features and versatility, Cattrax is very easy to learn and straight-forward to use. In fact, any user familiar with menu-driven and graphical user interface (GUI) based software control applications should feel right at home with Cattrax.



Real-Time System Status and Control

The main Cattrax operator screen is divided into panels by display and control functions. Cattrax constantly monitors the network for compatible PESA equipment. Discovered devices are added to the *Devices View* panel as a full directory listing of all PESA routing and signal processing devices on the network. The list can be sorted by individual IP address, assigned name of each device, or both. Signal processing modules can be shown with an identifier as to which frame and card slot each module is located.

Simply click on any listed device to select it for control or status monitoring. Pertinent operating parameters for the selected device are displayed real-time in the *Device Properties* panel.

Every device controlled by Cattrax has a unique set of status and operating windows. As a device is selected, its specific set of windows is listed in the *Menu Tree* panel and may be individually accessed by clicking an entry. The selected control or status window is displayed in the *Main Display* panel.

Cattrax monitors the entire system in real-time for specified events, errors or alarm conditions, based on operator-set flags that may be set for each device. Any detected flag condition is reported in the *Alarms and Events* panel, along with a visual notification that a flag condition has occurred.

Cattrax allows you easily configure, control and monitor your entire PESA equipment infrastructure from convenient locations anywhere within the facility. With four unique appearance styles, you may select a screen color and contrast to accommodate the lighting in most any operational environment. And Cattrax can run co-resident with other programs on your PC, eliminating the need to dedicate a PC only to router control.

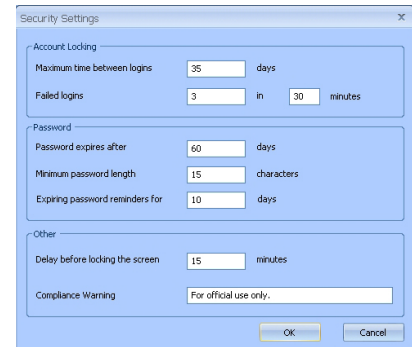
catrax-J

Catrax for Secure Installations

In many specialized installations, PESA routing and processing infrastructures are installed in secure or limited access facilities. For such situations, PESA's Catrax-J control software with Military-Unique Features provides a secure, encrypted, password-protected application. Catrax-J is certified compliant with UCR 2008, Change 3 for use as the control element with PESA's Cheetah Rel. 5.1 baseband Video Distribution System (VDS) as listed on the DoD Unified Capabilities (UC) Approved Product List (APL).

In addition to all the control and monitoring capability of standard Catrax, Catrax-J adds the military-unique requirements for password-protected access, administrator and user level account classes, and account control functions for each class.

Users and passwords must be assigned by an administrator level operator and all passwords must meet specific syntax requirements. Passwords may be assigned a specified expiration time and are not allowed to include identifiable names, telephone numbers, dates, dictionary words or the username on the user's account.



Catrax Features (All Versions)

- **Automatic Device Discovery and Display** - Automatically “discovers” PESA devices and control panels operating over the facility's internal network or connected through a USB port of the host.
- **Alarm Monitoring** – Monitors alarms and events from the discovered devices, and displays them in a table format.
- **Menu Driven Configuration and Control** – Uses a standard Windows® operating system tree structure for quick access to menus. Current configuration of multiple devices may be displayed simultaneously, reconfigured and controlled in real-time to optimize device functions.
- **Configuration Management** – Helps users manage the configuration of their system more quickly and effectively. It allows configuration of individual devices; or the entire system configuration may be saved to a file, and then restored by the user when needed. Catrax also supports automatic device configuration restoration.
- **Remote Access over VPN** – Network parameters can be configured to allow use of Catrax over a VPN link.
- **Automated Batch Firmware Update** – Allows you to update software or firmware code on multiple PESA devices of the same type simultaneously.

Catrax-J adds the following capabilities to the Catrax application:

- **Secure Access** – No user is allowed to access the operating screens and control menus of Catrax without following a security login procedure.
- **User Classification** – Every installation of Catrax-J has a permanent account with Administrator Level privileges. In addition, any number of user accounts may also be created and assigned Administrator or User Level classification.
- **Password Protection** – Each user is required to enter and maintain a unique password for system access. An administrator can set the amount of time a user password remains valid before requiring change. Passwords cannot be changed more than once in a 24 hour period and cannot be repeated for at least 10 password changes.
- **Unauthorized Login Attempt Lockout** – Catrax-J locks a users' account after a specified number of failed logins.
- **Administrator Privileges** – An administrator level user may create or delete user level accounts, unlock accounts that are in lockout status, change password for any user level account, and set certain operating parameters for the security and access functions of Catrax-J.

Minimum Host PC Requirements (All Versions)

Catrax requires a PC running the Microsoft Windows® XP, Windows 7, Windows 8.1 or Windows 10 operating system, with a minimum of 512 MB RAM. The entire application requires approximately 60 MB of disk space on a local drive.