



TecnoAlarm Panel Integration White Paper

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1 Introduction

This document indicates the features/abilities of the TechnoAlarm panel when integrated with CathexisVision.¹

a. Integration Purpose

The CathexisVision integration of the TecnoAlarm panel allows for local and remote monitoring and operation of the alarm panel from within the CathexisVision interface. All device objects may be linked to cameras, allowing associated footage to be databased according to the configuration of CathexisVision events and alarms which trigger on information received from the device. All messages from the device (even those not configured to trigger a CathexisVision alarm or event) are also databased. Operators with sufficient access rights are able to issue certain commands to the device, such as isolating zones and bypassing programs, for example.

b. Requirements

General Requirements

- CathexisVision 2018 Service Pack 2, or later.

TecnoAlarm Panel Requirements

The following are the TecnoAlarm panels and firmware supported for this integration.²

- TP16-256 Release 3.0 and following.
- TP8-96 VIDEO Release 0.7.01 and following.
- TP16-512 Release 0.7.01 and following.
- TP8-88 Release 0.8.02 and following.
- TP8-88 PLUS Release 0.0.00 and following.
- TP20-440 Release 1.1.03 and following.

Note:

1. For information regarding the regular operation of a TecnoAlarm device, please consult the relevant documentation.
2. There is a General Integration section in the main CathexisVision manual. It has vital information about creating an integration database, as well as a general introduction to the Integration Panel. **Read over this section.**

License Requirements

The following licences will be required to enable the integration in the CathexisVision software:

License Name	License Description
CTEC-2000	TecnoAlarm Panel Device License

¹ While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit, nor implied. Specifications are subject to change without notice.

² Cathexis makes a best attempt to ensure that the equipment and license requirements of the 3rd party equipment are adequately specified. However, it is possible that the requirements of the 3rd party equipment may change over time, including the interface hardware/firmware and licensing. The reader is urged to clarify the latest requirements directly with the 3rd party equipment supplier.

2 Features and Abilities

This section details the main features of the integration, and the associated abilities.

a. General Integration Features

Connection

- Communication between CathexisVision and the panel takes place over a TCP connection with AES128 encryption.
- CathexisVision server IP address needs to be whitelisted for communication on the panel.

Panel

- Zones, areas, and user setup are configured on the panel itself. Consult manufacturer for help.
- Panel covers 4 to 256 zones.
- All device messages are databased.

Integration Objects

- Zone name and state overlays can be shown in camera feed.
- Some device objects can be used to trigger events, and some can be controlled as event actions.
- Device can be embedded in a site map which offers multiple action options when messages are received from the device, and/or the device triggers an event.

b. Device Objects

Device objects populate automatically once communication is established. As the panel supports many expansion modules, the objects displayed in CathexisVision will vary depending on the objects that are configured on the panel.

Object Type	Feature	Abilities
General		<ul style="list-style-type: none"> • Panel can have up to 2110 objects. • Commands are hidden/shown based on the current object state. • Functionality of object commands are dependent on configurations done on the panel. • Users are required to enter a code when attempting to execute a command. • Objects may be linked to cameras to associate device events with video footage.
	State Indication	<ul style="list-style-type: none"> • Offline/online status.
Panel	Command	<ul style="list-style-type: none"> • Synchronise panel time with NVR
Zone	General	<ul style="list-style-type: none"> • Supports overlays in video feed, indicating zone name and state.

	State Indication	<ul style="list-style-type: none"> • Active • Isolated • Alarm • Low battery • Stand-by • Masked • Failure • Power failure • Tamper
	Command	<ul style="list-style-type: none"> • Isolate zone/s to prevent from triggering alarms.
Program	State Indication	<ul style="list-style-type: none"> • Standby • Arming (exclusion time running) • Arming (exit time running) • Armed • End of by-pass • By-passed • End of by-pass signaling active
	Command	<ul style="list-style-type: none"> • Disarm • Arm • Bypass • End Bypass
Remote Control	Command	<ul style="list-style-type: none"> • Activate/Deactivate
Timer	Command	<ul style="list-style-type: none"> • Block/Unblock timer
Console	State Indication	<ul style="list-style-type: none"> • Normal
Keypoint		<ul style="list-style-type: none"> • Lost
Output Expansion		<ul style="list-style-type: none"> • Tamper
GSM Communicator		<ul style="list-style-type: none"> • Blocked • Isolated
Wireless Module	State Indication	<ul style="list-style-type: none"> • Normal • Lost • Tamper • Isolated
Expansion Output	State Indication	<ul style="list-style-type: none"> • Output deactivated • Output active • Quickly blinking (125 ms) • Slowly blinking (500ms)
Wireless Siren/Console	State Indication	<ul style="list-style-type: none"> • Normal • Low battery • Tamper • Isolated • Supervision alarm

c. Events

A CathexisVision Event has a trigger, which causes an action. Integrated devices may be set to act as event triggers, and/or to be controlled via an event action.

Event Element	Features/Abilities
General	<ul style="list-style-type: none"> • A message is displayed when communication to the panel is lost or restored. • Device events are read from the panel’s log every second and are displayed in CathexisVision as device events. • Device events which occur on the panel while communication is lost will be displayed in CathexisVision once communication is established again.
Event Triggers	<p>Some TecnoAlarm device objects and (and groups of appropriate objects) may be used to trigger CathexisVision events:</p> <ul style="list-style-type: none"> • Program • Timer • Zone
Event Actions	<p>Some TecnoAlarm device objects may be controlled via a CathexisVision event action, to perform an action:</p> <ul style="list-style-type: none"> • Control Panel → Set panel time (synchronise with NVR) • Program → Arm/Bypass/Disarm/End Bypass • Remote Control → Activate/Deactivate • Zone → Isolate/Reintegrate

d. Meta Database

A unique meta-database is created on the CathexisVision server for this integration. It is fully searchable with configurable filters based on device event information (as above) and time stamping. The filtered event/s and the associated video will then be available for review in a new window from which an archive can be created and exported.

Database Element	Features/Abilities
General	<ul style="list-style-type: none"> • All messages received from the device are entered into the database. • Database entries include the footage from cameras linked to device objects. • Multiple cameras may be linked to multiple objects. • Device event meta-data is displayed where applicable. • Databased device events may be viewed in the embedded video player, which includes the usual CathexisVision video review tools.
View Options	<p>The meta-database may be viewed by the following options:</p> <ul style="list-style-type: none"> • All • Zone • Program • Remote Control • Device • GSM

- Timer
- Communication
- User Code
- General
- Wireless Key

Sort Options	<p>The meta-database may be sorted by:</p> <ul style="list-style-type: none"> • Device event time.
Easy Search	<p>The meta-database may be searched specifically for:</p> <ul style="list-style-type: none"> • Notifications, • Fields 1-3, dependent on the event type, to be configured by the user.
Filter	<p>The meta-database may be filtered according to:</p> <ul style="list-style-type: none"> • Time • Event Type • Notification • Fields 1- 3 (see above).

e. Maps

The CathexisVision GUI provides for configurable site maps that feature multi-layered, hierarchical, interactive interfaces providing representation and control of a site and its resources.

Map Element	Features/Abilities
General	<p>Device objects can be embedded in a site map which offers multiple action options when messages are received from the device, the device triggers an event, and/or the user manually initiates a map action.</p>
Map Action Triggers	<ul style="list-style-type: none"> • All device objects may be set to trigger a map action if t the user left-clicks on map. • Some device objects may be set to trigger a map action if a state change message is received from the device.³ • All device objects may be set to perform a map action if <i>any</i> event occurs on the device. • Device objects which can be configured to trigger CathexisVision events, may also be set to perform a map action when specific CathexisVision events are triggered.
Map Actions Options	<p>When triggered (see above), objects may perform the following map actions (where applicable):</p> <ul style="list-style-type: none"> • Connect to a site. • Perform an animation. • Go to a camera preset. • Load a map. • Set a PTZ relay output. • Show a popup menu. • Set a relay output. • Show an HTML block. • Show a block of text.

³ See the Device Object Features table, above, for state change information.

- Show a device popup menu.
- Show a device event notification.

3 Conclusion

Please remember that this document was designed to deal specifically with this aspect of the software. For further information about the CathexisVision software please consult the main manual (<http://cathexisvideo.com/>).

For support please contact support@cat.co.za