Controller Action Plan Activation
from Centracs

Centracs
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Purpose of This Document
This document explains how to allow Centracs to remotely activate ASC/3 and Cobalt Action Plans using “Set Pattern” commands.

Introduction
On ASC/3 and Cobalt controllers, Action Plans are a powerful tool normally tied to the local scheduler on the controller. Econolite has received many requests to incorporate functionality in Centracs that would allow controller Action Plans to be enabled and managed centrally from Centracs via the system scheduler and manual command operations. A feature in the ASC/3 controllers (software version 2.61 or later) and Cobalt controllers now makes this possible. Prior to the development of this feature, Action Plans on the controller were simply OR’d together with the pattern command from Centracs. But now an Action Plan currently running on the controller can be completely overridden with a new Action Plan corresponding to the pattern command.

When the ASC/3 or Cobalt controller runs a coordination pattern commanded by Centracs (via the scheduler or a manual command), it can also optionally run an associated Action Plan previously programmed in the controller. This allows agencies that manage various operations via controller Action Plans (such as phase omits, flashing yellow arrow operation modification, special functions, and other Action Plan-specific items) to activate the complete set of operations from Centracs. This document explains the process of configuring and using this functionality.

Configuration
1) The controller must be programmed such that each coordinator pattern specifies an associated Action Plan, and each Action Plan specifies the corresponding coordination pattern (as shown below on MM-5-2 and MM-3-2):
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Linking the coordination pattern and the Action Plan together allows the override mechanism to ensure the correct Action Plan is operating with the desired coordination pattern. Thus it eliminates any ambiguity at the controller that could occur if the Action Plan were to try to run a different coordination pattern. This linkage is not necessary if the Action Plan does not activate a coordination plan.

**Note:** This feature may require you to create additional patterns in the controller. For example, if you want the same Cycle/Offset/Split but a different Flashing Yellow Arrow (FYA) operation, you would create two patterns: each with the same Cycle/Offset/Split, but with different Action Plans specified.

2) In Centracs (version 1.10.5.9 or later), configure the `SystemPatternOverrideDefault` and `SystemPatternOverrideEnable` Global Settings (you will find these under the “Signals” group on the Global Settings window). These settings allow Centracs to use pattern commands to activate Action Plans on the controllers.

- **SystemPatternOverrideEnable:** When set to “true”, this option adds a *System Pattern Override* checkbox to the Scheduler, Manual Command, and Action Set windows when configuring a Set Pattern action for a signal (see example at right).

- **SystemPatternOverrideDefault:** This option determines the default value for the *System Pattern Override* checkbox. To have the checkbox enabled by default, set this option to “true”.

Functionally, the *System Pattern Override* feature still activates a coordinator pattern rather than the Action Plan directly. However the override also sets another object in the controller which causes the controller to override the currently running Action Plan with the associated Action Plan defined in the coordinator pattern.
Usage

Activating an Action Plan from Centracs

When the System Pattern Override checkbox is enabled for a Set Pattern command, Centracs overrides the current controller Action Plan with the new one that is associated with the coordination pattern commanded from Centracs. In this mode, the Coordination status monitor on the controller front panel (MM-7-2) shows a “SYS OVR” message indicating that the command override is in effect and that the Action Plan associated with the pattern is active. Additionally, on the Signal Status display in Centracs, the Current Mode/Pattern status shows “OTHER/x” (where x is the pattern number):

Notes:

– When the System Pattern Override checkbox is not enabled for a Set Pattern command, the existing Action Plan and the new coordination pattern are OR’d together, and the Mode/Pattern section of the Signal Status display shows “SYS/x” (where x is the pattern number).

– The action plan override feature can be used only for patterns 1 through 120. When commanding FREE or FLASH from Centracs, disable the System Pattern Override checkbox.

Deactivating an Action Plan from Centracs

IMPORTANT! When you want to terminate the Action Plan, a new command must be sent to instruct the controller to exit Override mode. To do so, use one of the methods described below to send a “Clear/Local” pattern command with the System Pattern Override checkbox enabled. If this is not done, the controller will be “stuck” in that Action Plan after the Set Pattern command has ended.
Using a Manual Command
If the Action Plan was initiated from Centracs using a manual command, the easiest way to clear the override is to reopen and edit the manual command. Change the pattern to “Clear/Local” and leave the System Pattern Override checkbox enabled. It is a good idea to set a stop time of 1 to 3 minutes to allow time for the command to take effect and then return to its normal day plan schedule. See example at right.

Using the Scheduler
Override mode can also be activated and deactivated using the Centracs scheduler. As with manual commands, you can instruct the controller to exit Override mode by sending a “Clear/Local” command with the System Pattern Override checkbox enabled. Because the original Scheduled event will terminate at a specific time, the second command must be scheduled to run at that time to execute the Clear/Local command (for 1 to 3 minutes).

Using an Action Set
If the duration of the Action Plan activation is known, a timed Action Set is the preferred method. You can configure a timed Action Set that combines the activation of the pattern/plan with the subsequent deactivation using the Clear/Local command. The Action Set can then be run from a manual command or the scheduler. The example at right shows a timed Action Set containing the Action Plan (to run for 15 minutes) followed by the Clear/Local command (after 15 minutes has elapsed). Enable the “System Pattern Override” checkbox on both commands.