

# Traffic Controllers for Traffic Operations



## What, exactly, is EOS?

EOS is Econolite's new breakthrough in ATC controller software. Designed to power Econolite Cobalt (and other properly configured ATC controllers), EOS provides improved core traffic controller operation, enhanced features, and improved usability, helping prepare transportation agencies, cities, MPOs, and others for support of Connected and Automated Vehicles (CAV) and Smart City applications.

## Why do agencies use EOS?

EOS provides a user interface that has been designed to maximize usability of traditional displays, as well as incorporating a new web user interface. EOS has improved real-time decision-making, allowing dynamic changes to nearly all features and timing 'on-the-fly'. It also provides operational benefits of adaptive control without the need for a separate adaptive system.

## How does EOS benefit the driving public?

EOS' improved traffic control capabilities combined with its ease-of-use helps ensure that transportation agencies can provide the safest and most efficient intersections for its driving public. It is also designed with the future in mind, supporting the demands of Smart City and connected vehicle applications for the next level in intersection safety.





## Description

Econolite EOS' user interface has been designed to maximize usability of traditional displays, as well as incorporating a new web user interface that includes a virtual suitcase tester. EOS can be accessed via a network interface, which can be local or remote, wired or wireless, and allows monitoring or programming of the controller through any web-enabled device, including smart phone, tablet, laptop, or desktop computer.

## Improved Traffic Control

EOS has improved real-time decision-making, allowing dynamic changes to nearly all features and timing 'on-the-fly'. EOS supports the configuration of phase and overlap timing in predefined tables that can be swapped to meet immediate needs. Dynamic-sequencing is achieved by updating prior phase-next selections at the end of a red clearance and even allows phase-sequence swaps in the middle of active phase timing.

EOS features a brand new coordinator design, enabling immediate coordination decisions rather than awaiting a cycle endpoint. This coordinator includes adaptive split balancing using the Purdue GOR/ROR5 metric for phase failure. This coordinator goes a step further by supporting localized adaptive splits. Adaptive splits perform a split re-allocation, balancing splits per the newly published GOR/ROR5 metric. This feature brings many of the operational benefits of adaptive control, without the need for a separate adaptive control system.

## Preparation for the Future

EOS' improvements to the core traffic controller operation, enhanced features, and improved usability, helps prepare transportation agencies, cities, MPOs, and others for support of Connected and Autonomous Vehicles (CAV) and Smart City applications. EOS currently supports SPaT, MAP, and BSM messages per the latest SAE J2735 standards.

