SWARCO

McCAIN OMNI eX®

INTERSECTION CONTROL SOFTWARE

McCain Omni *eX* Intersection Control Software is a modern, standards-compliant program for ATC traffic controllers. Capable of operating Model 2070 and NEMA-based ATC platforms and interfacing with any style cabinet. McCain Omni *eX* Intersection Control Software provides a single solution for any infrastructure.

This solution easily integrates with SWARCO McCain, Inc.'s central software, McCain MyCity Traffic Management System (TMS), or any other NTCIP-compliant central systems.

KEY BENEFITS

- Supports a fully adaptive environment out of the box using the Critical Intersection Control (CIC) objects
- Assign inputs and outputs (I/O) to accommodate any type of standard or custom cabinet
- Program user database via the front-panel LCD and keypad UI, NTCIP via serial or Ethernet ports, transfer to USB drives, or webserver
- Ensure accuracy and consistency with built-in data validation
- Capture high-resolution data, including measures of effectiveness (MOE) and detector data logging, that can be stored locally via USB or to a central management system
- Update traffic controllers securely and intelligently with the Omni Intelligent Installer

PRODUCT DESCRIPTION

McCain Omni *eX* Intersection Control Software is a progressive software that includes exciting new features and benefits that increase security, efficiency, and ease of use, while saving technicians time. The addition of the exclusive McCain Omni *eX* Intelligent Installer allows traffic controllers to be updated securely and intelligently, by automatically searching for and performing necessary updates to the software package.

McCain Omni *eX* Intersection Control Software dramatically improves the security, quality, performance, and reliability of updated Management Information Bases (MIBs) with the implementation of source-code, source-control, and source build server for continuous integration testing.

Fully compliant with Purdue High Resolution Data Enumerations[1] and NTCIP, McCain Omni *eX* Intersection Control Software promotes interoperability and interchangeability between manufactures, providing users with a choice and protects their investments.

McCAIN OMNI eX®

STANDARD FEATURES

Phases
- 16 volume/density vehicle phases
- 16 pedestrian phases
- 4 rings with flexible phase assignments and sequences
- 32-channel supported
- Automatic barrier calculation based on compatible phases
- Exclusive pedestrian-phase operation
- Alternate timing for special vehicles, bicycles or pedestrians
- Advance and delayed walk operation
- Texas diamond operation
- 4 unique sets of phase timing and options selectable by pattern

Overlaps
- 16 vehicle overlaps
- 16 pedestrian overlaps
- Negative (excluded) vehicle and pedestrian phases
- Delayed start of green
- Flashing yellow or red arrow overlaps
- Detector call phases and locking
- 4 unique sets of overlap configurations selectable by pattern

Logs
- Extensive event log for management and diagnostic purposes
- Cycle-based measures of effectiveness (MOE) 1000 events
- Detector volume, occupancy and speed (VOS) 1000 events
- Dual-detector speed traps 1000 events

Event Logging
- Controller log: Operation, Detector, Communication, Access, Command, Preempt, Transit Priority
- 300 events in each section

NTCIP Logs
- Global Reporting conformance group for user defined event logging
- High-resolution logging

Detection
- 128 local detectors
- 32 system detectors
- Single or speed trap calculations Volume/occupancy configurable per detector
- Delay and extend timing
- Alternate passage, minimum green and pedestrian timing detection
- Detector fail diagnostics monitoring configurable by time-of-day, by detector
- Support video detection using NEMA SDLC or ATC SDLC

Preemption
- Fully NTCIP 1202 compliant (mandatory and optional objects)
- NTCIP MIB and block objects for vendor-specific parameters
- 8 preemption sequences
- Configure sequences for railroad or emergency vehicle operation
- Define priority and linking
- Configure overlap enable/disable during all preempt intervals
- Flashing and limited service options
- User-assignable status options (active or dwell)
- Supports NTCIP preempt control state for remote preemption

Transit Priority
- Estimated time of arrival - Intelligent phase time adjustment
- 16 priority strategies in 4 sets, selectable by pattern
- Options to support any type of vehicle detection
- Supports NTCIP object for remote TSP
- Configurable headway and preempt lockout timers
- Queue jumping
- Supports user-configurable special logic and advanced operations

Communications
- Supports all industry standard communications
- Web browser support includes security support
- Connected vehicle SPaT interface
- Fully NTCIP compliant communications
- Data validation during download process
- Supports HTTPS:// protocol
- Time synchronization via WWV, GPS, NMEA or NTP
- Peer-to-Peer sharing of I/O between intersections

Coordination
- 250 free or coordinated patterns
- Selectable permissive modes
- Fixed or floating force off selection
- Reference cycle to beginning or end of green
- Mode selection done by split table
- Change virtually all operational parameters by pattern
- 16 phase sequence selection by pattern
- Texas Diamond supports 4 and 3-phase and separate modes
- Hierarchal control phase reservice operation

Cabinet Inputs and Outputs
- Supports all cabinet types
- Individually assignable input and output functions (I/O mapping)
- Internal multi-input Boolean logic gates with delay, extend and latch, and flashing output features
- Alarm inputs (16)
- Special functions (16)
- External pattern selection
- Pulsing preempt and transit priority input discrimination

[1]March 2019

www.swarco.com/mccain