Advanced Transportation Management System
Next Generation Open Architecture Platform
Real-time Control and Monitoring

Aria is an Advanced Transportation Management System that represents Fortran’s next generation of hybrid central systems. The centerpiece component of Aria is a reliable, comprehensive, integrated real-time centralized Traffic Signal Control System.

Aria provides an integrated platform for Intelligent Transportation Systems (ITS) initiatives including traffic signal control, information management, and graphical data display and manipulation. Aria is a time-proven product with more than two decades of ongoing product advancement that has enabled it to adapt to changes in technology and the industry as well as to meet new traffic challenges as they continue to evolve.

Open Architecture Design

Aria is an open platform system that delivers high availability, scalability, and security along with extensive traffic control capabilities. It encompasses a modular and easy-to-use modern web-based user interface that enables access to system from any platform.

Support for standard communication protocols (NTCIP) and design flexibility enable Aria to be extended to manage other ITS applications and related data with minimal impact on existing system components.

Our complementary Communications Server for legacy protocols enables interfacing with a variety of legacy communications media and topologies. Aria supports Fortran’s Remote Control and Communication Unit (RCCU) and cabinet interface kits that have been used to interface with over 20 different types of controllers.

Extensibility and Support

A variety of optional modules and our dedicated software development team enables Fortran to provide easy expansion and allows you to add the modules you need as your requirements grow. Our comprehensive hardware and software maintenance and support ensure that customers are able to capitalize upon these advancements.
System Features

Real-time Intersection Control & Monitoring
- Time-Of-Day, Traffic Responsive and second-by-second real-time control and monitoring
- Simultaneous control and monitoring of up to 1000 intersections
- Comprehensive alarm management: generation, notification, and filtering
- Integrated with Video Detection System

GIS-Based Map-Driven User Interface
- Real-time graphical display of city wide, area, and intersection data
- User-specified map views and map layers from variety of sources
- Cyclical display of user-defined areas
- Display of dynamic symbols on the map with user definable dynamic attributes
- Display real-time and historical status/intersection information on maps

Traffic Responsive Control
- Intuitive Traffic Responsive programming user interface
- User-definable traffic parameters using variety of information sources
- User-definable traffic responsive selection plans that will meet a wide range of scenarios and requirements

Reports
- More than 35 predefined graphical and tabular standard and MOE reports
- Unlimited customizable reports in more than 10 different formats
- Schedulable reporting capability

Real-Time Displays
- Real-time Global Measures of Effectiveness (MOE) dashboard
- Real-time and historical intersection and detectors monitors
- Intersection graphic displays
- Archive and replay of historic data

Transit Signal Priority
- Implementation of flexible and schedulable priority strategies
- Serving up TSP priority requests through local intersection detectors
- Design based on NTCIP 1211 standard
- Support of interface to transit servers through Siri 2.0 standard

Real-time Time Space Diagrams
- Real-time and historical Time Space Diagram
- Real-time and historical Cyclic Flow & Queue Profile
- Interface to Synchro™