



DATA AND PROCESS INTELLIGENCE

**Real Time Data.
Increased Control.
Higher Profits.**

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Leading in automation
control systems and
data management

BUILT TO **CONNECT**

BUILT TO CONNECT

ASTECTM**DATA AND PROCESS
INTELLIGENCE****PLANT OPERATIONS MANGER****MAINTENANCE MANAGER****LIVETANK MONITOR****LIVEJOB MONITOR****MIX QUALITY MANAGER****LIVEBIN MONITOR****TICKET MANAGER****TICKET MANAGER ENTERPRISE**

More Production. Better Accuracy. Higher Profits.

Astec Data and Process Intelligence is a complete software and hardware toolset for managing and optimizing asphalt plant operations.



Data and Process Intelligence for Asphalt Plants

Multi-site plant management, enterprise level ticketing, quality control, material usage and inventory, and performance metrics dashboards are all part of the Data and Process Intelligence products. These information systems enable you to get the critical information that you need about your operations where you need it and when you need it. We are constantly innovating to offer the best solutions for plant managers, operators, and business managers.



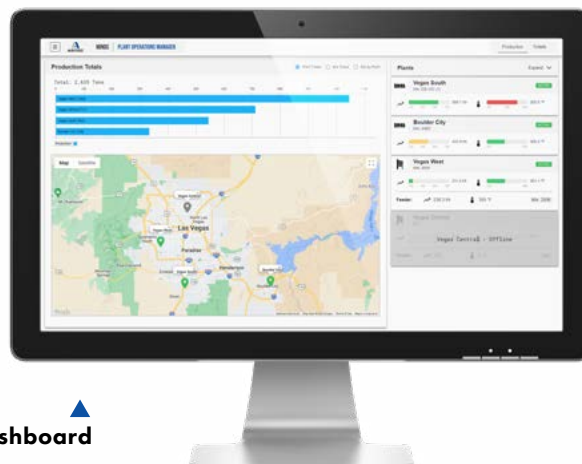
Advantages:

- Process automation solutions for ticketing and invoicing
- Products compatible with any brand equipment
- Standard platform across all business sectors
- Enhanced training, support and customer experience

Plant Operations Manager

Monitor multiple plants

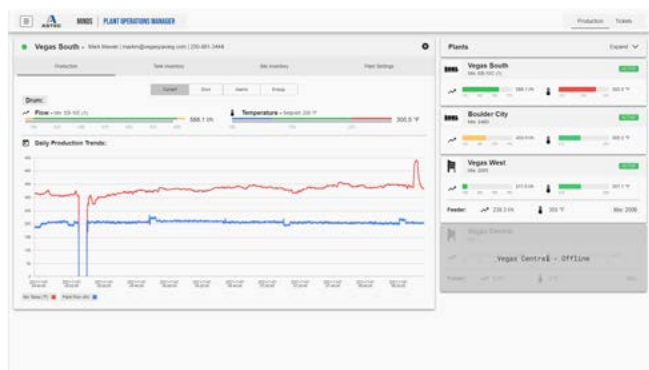
Gain an overview of your company's plants all in one powerful dashboard. Spot issues at glance, and drill down into production and job data.



Multi-Plant Dashboard

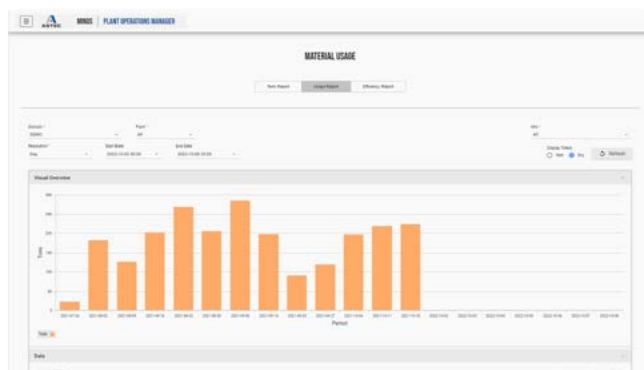
Highlights

- ✓ Multi-plant dashboard: All key numbers per location.
- ✓ Individual Plant Production Details: See historical, time-stamped log of tonnage, RAP percentage, and moisture percentage.
- ✓ Individual Plant Energy Details: Measure current and historical energy consumption in KWh/T, BTUs/T or Therms/T.
- ✓ Individual Plant Trucking: Review truck rotations and ticket information for each job.
- ✓ View information on desktop, tablet, or mobile devices.
- ✓ Current and historical data enabling comparison and improvement.



Individual Plant Overview

Drill down to the individual plant level where analog style gauges make it easy to track mix rate of production, temperature, and energy usage.



Individual Plant Energy Details

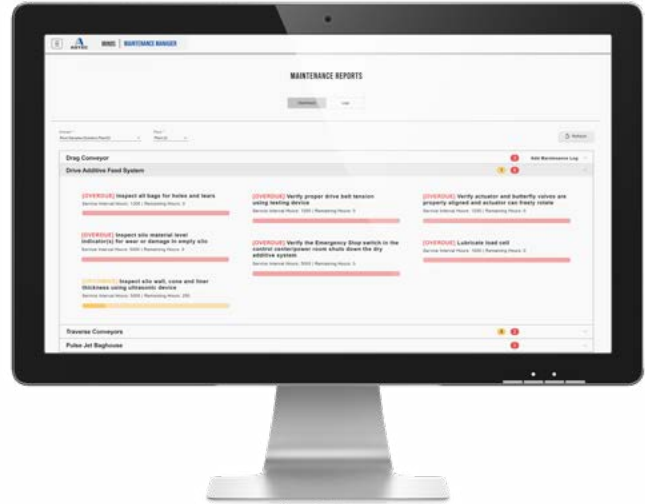
Measure current and historical energy consumption in KWh/T, BTUs/T or Therms/T.



Maintenance Manager

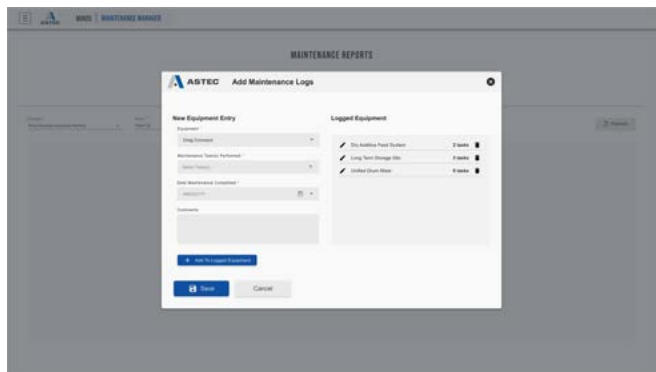
Manage your plant maintenance from anywhere

Maintenance Manager gives you an overview of your plant's maintenance status. Maintenance Manager captures all maintenance activities for your plant in one convenient application. Maintenance Manager provides feedback to help you track and schedule tasks needed to optimize plant performance.



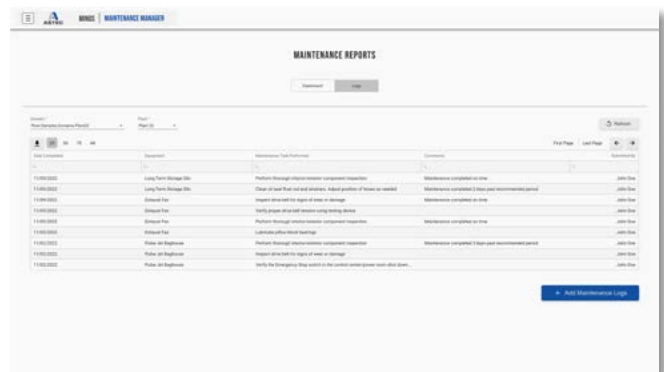
Highlights

- ✓ Oversee all maintenance activity per plant
- ✓ Maintenance logs and reports are viewable on both desktop and mobile devices
- ✓ Individual plant maintenance health indicators provide data to enhance maintenance planning
- ✓ Generates a trend analysis from historical data to enable predictive reporting
- ✓ Remote management of maintenance tasks



Maintenance Log

Log maintenance task activities for the equipment at your plant.



Maintenance Reporting

Maintenance Reporting to aid in tracking activities of all types.

LiveTank Monitor

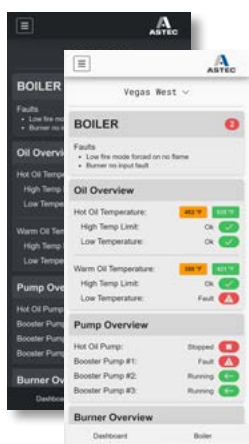
Remote monitoring of liquid tank farms & heating

Not on site? No problem. Now there's a mobile app that integrates with desktop asphalt plant management software to remotely monitor liquid tank farms and tank heating.



Highlights

- ✔ Oversee critical operations anywhere you have cell phone reception.
- ✔ Real-time data is constantly communicated between plant's control system (such as Asphalt Controls - or Batch, or Emulsion & Tank Terminal Controls) and the Tank Monitoring app.
- ✔ Monitor heater conditions such as hot oil temperature, warm oil temperature, pump status, and burner status
- ✔ If the heater or tanks aren't running within set parameters, you'll receive alerts on your phone.
- ✔ Warnings are sent as text-based push notifications to your smart phone, while Faults play a loud sound on your smart phone as well as sending the text notification.



Heater Monitoring and
Remote Reset



Bitumen Tank Monitoring
and Settings



LiveJob Monitor

Live job monitoring app for asphalt plants

Keep on track of your operations' ticketed output with LiveJob Monitor. The app gives you an up-to-date view of material being loaded out and other key jobs data. Use standalone or with Ticket Manager.

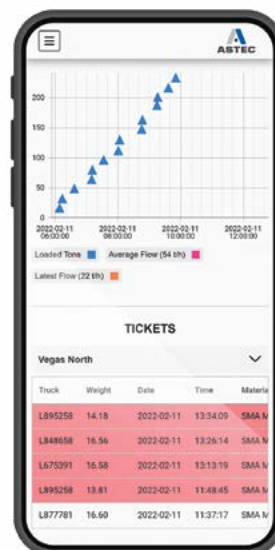


Highlights

- ✓ Live dashboard, with real-time data from your ticketing software, provides a clear view of total tons loaded out per plant and job, and percentage progress indicators for each job.
- ✓ Easy view of breakdowns by jobs or customers to see internal versus external sales and more!
- ✓ Zoom in on specific jobs to see key data points such as trucks' current and average cycle times, etc.
- ✓ LiveJob Monitor is available on desktop and on mobile for Android and IOS. Mobile users can configure push notifications for the first ticket of the day, specific jobs or customers, and more!

Features

- ✓ Dashboard with live produced tickets
- ✓ Real-time progress indicators for material loaded out to all jobs
- ✓ Job overviews, including number of tickets, material totals and ID, and truck rotations
- ✓ Breakdown of tickets by ticketed mix or ticketed aggregate
- ✓ Historic view of tons loaded out to specific jobs

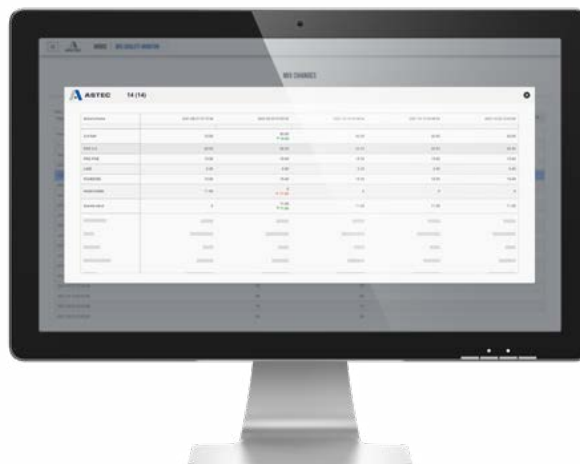


Receive information from Ticket Manager or other ticketing softwares

Mix Quality Manager

Asphalt mix quality control app

Never worry about your mix quality again with Mix Quality Controls. View live production data or drill down to analyze past performance to quickly catch, and fix, mix issues.

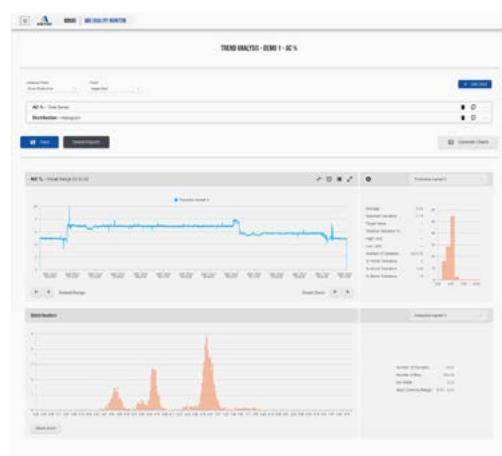


Highlights

- ✓ Live dashboard displays production run data; start and end times, mix ID, total production, moisture content, and more!
- ✓ View logs of mix changes and updates to the mix design.
- ✓ Manually set critical control points for mix quality, and alarms for if those thresholds are exceeded.
- ✓ Monitor asphalt quality and troubleshoot mix issues.
- ✓ View of production asphalt percentage over time, and the ability to overlay that data with a wide array of time series factors such as aggregate percentage, plant flow, mix temperature, and more!

Features

- ✓ Live dashboard with production run data
- ✓ Time stamped mix & mix design changes
- ✓ Inventory control
- ✓ Granular analysis of production asphalt percentage & more key factors
- ✓ Ability to visualize mix distribution
- ✓ Customized alarms & notifications for mix quality control points



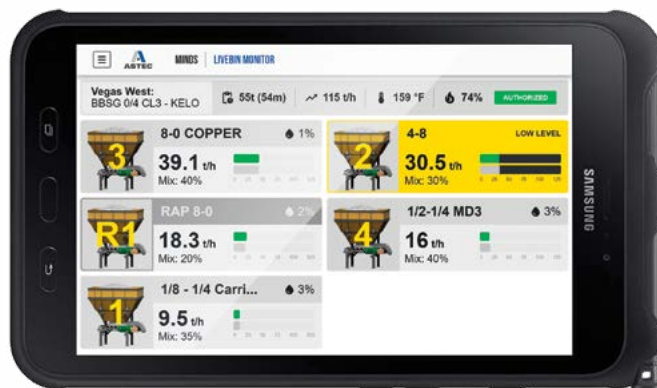
Mix Quality Controls supports drum, batch & combination plans — emulsion plants coming soon



LiveBin Monitor

In-cab production dashboard for loaders

Still using clipboards or walkie talkies to keep your loader operators in the loop? LiveBin Monitor displays all vital production information inside the cab of the loader on a digital tablet. Data is always accurate and always up-to-date.

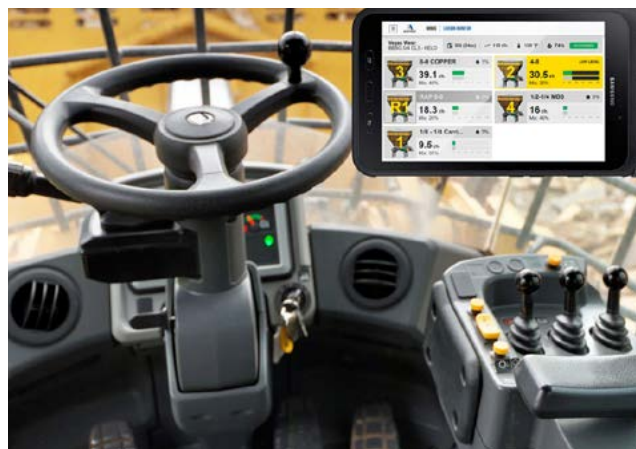


LiveBin Highlights

- ✓ Real-time dashboard of practical contextual information.
- ✓ All vital production information and statistics available inside the cab in real-time.
- ✓ Current mix/percentages, next mix scheduled, feeders in use, amount of stone needed, levels and no-flow sensors, plus time-to-empty countdowns are displayed.
- ✓ Information is graphically displayed for intuitive understanding.
- ✓ Available for Android devices and preferably runs on a rugged tablet permanently mounted in cabin.

Communications

- ✓ Receive information from plant controls systems with Plant Operations Manager option
- ✓ Data transferred through data plan on mobile (cellphone) network
- ✓ All configuration data at the plant level allowing multi instances of LiveLoader to run concurrently



Ticket Manager

Job ticketing and management software

Efficient ticketing and management software for asphalt plants to handle billing jobs, trucks, haulers, materials - use stand-alone or fully integrated with production systems such as Asphalt Plant Controls, Asphalt Batch Plant Controls, and LoadOut Controls.

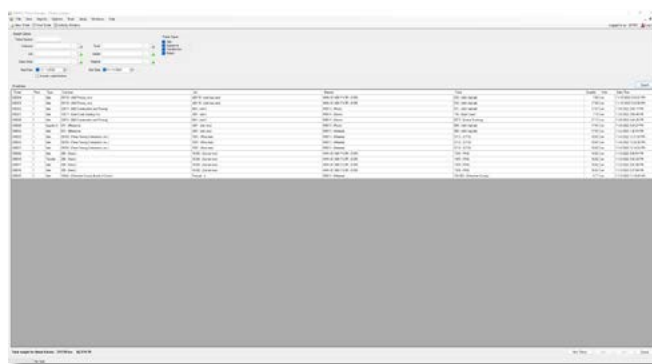


Ticketing Highlights

- ✓ Allows users to quickly and easily print tickets/invoices after material has been loaded on to a truck.
- ✓ Supports the ability to store customers, haulers, jobs, materials and trucks.
- ✓ Extremely powerful reporting capabilities, comprehensive external accounting interface and flexible printing system with highly customizable layouts and behavior.
- ✓ Software takes care of pricing the material, doing any relevant unit conversions, calculating the taxes and much more.

Features

- ✓ Use stand-alone or integrate with our Plant Production software (image to right)
- ✓ Automatic unit conversion; system adjusts unit price based on units selected by the operator
- ✓ Comprehensive material pricing rules; price material for specific customer and job
- ✓ Handles multiple taxes, including tax-on-tax; can account for tax increases that automatically take effect at a specified date

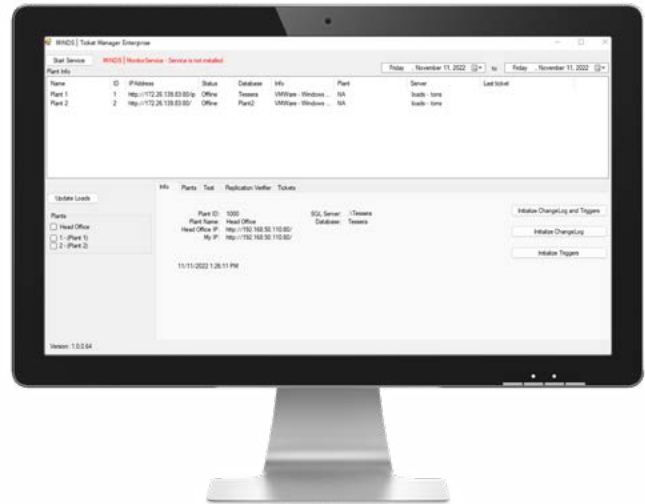




Ticket Manager Enterprise

Replicate ticketing data

Leverage the power of data generated through Ticket Manager. Monitor tickets generated on site, run reports or export ticket data directly from a central office computer for accounting or ERP system use.

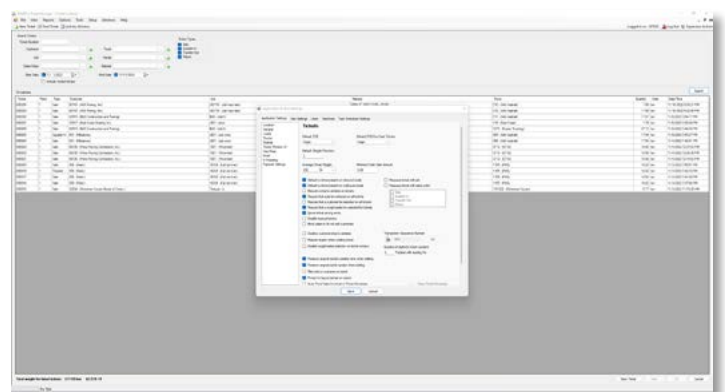


Ticketing Highlights

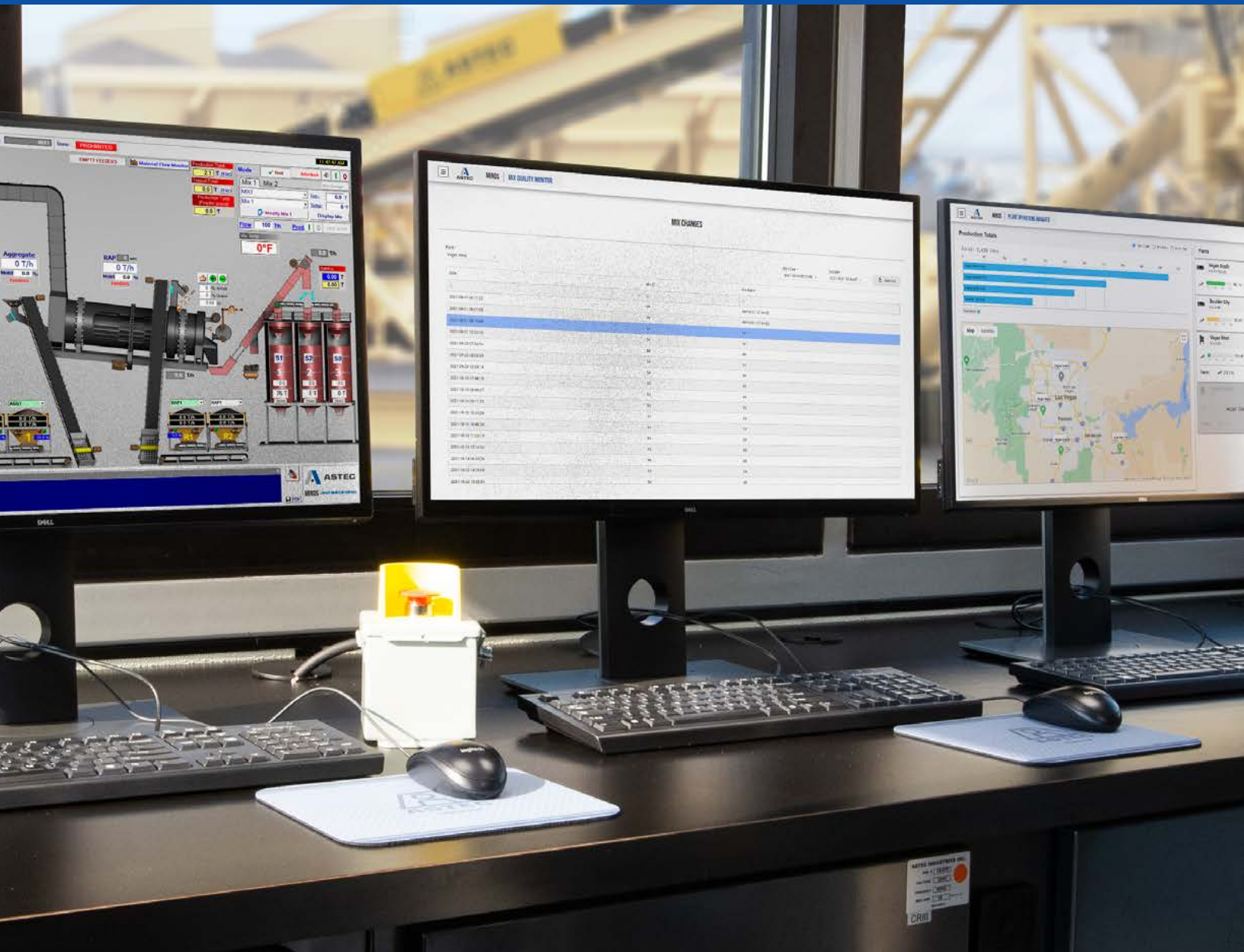
- ✓ The ability to replicate data that is generated by the Ticket Manager at any of your plant computers to a centralized headquarters and vice versa.
- ✓ The replication service will run on both the plant and the head office computer.
- ✓ The head office gets a Ticket Manager application that works exactly like the one on a plant.

Features

- ✓ Bring all your ticketing data together at a central location
- ✓ Multi-user system allows multiple stakeholders to manage data across numerous sites



ASTEC DATA PROCESSING AND INTELLIGENCE



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