



HASTUS

THE SOFTWARE SUITE TO OPTIMIZE PUBLIC TRANSPORT

An integrated solution
to plan and manage fixed-route
and on-demand services

GIRO



PLAN
SCHEDULE
OPERATE



THE HASTUS SUITE

HASTUS is a complete software solution for public transport services by road and rail, trusted by authorities and operators around the globe to meet their real-world challenges in planning, scheduling and daily operations.

The main HASTUS modules

Configure your HASTUS solution to meet your unique challenges. Choose from **seven main modules**, and others as needed, all offering state-of-the-art features and sharing the same database to ensure maximum optimization as you plan, schedule and operate your services.

PLAN

From network adjustments all the way up to reimagining your network, our planning modules give you the right tools to plan the high-quality service that your customers deserve.

NET PLAN [⊕]

Add Modules ⁺¹

SCHEDULE

Our scheduling modules' powerful optimizers ensure efficient vehicle and crew schedules that unlock significant savings in time and money, while maintaining your staff's work-life balance.

VEHICLE [⊕]

Add Modules ⁺⁷

CREW [⊕]

Add Modules ⁺²

OPERATE

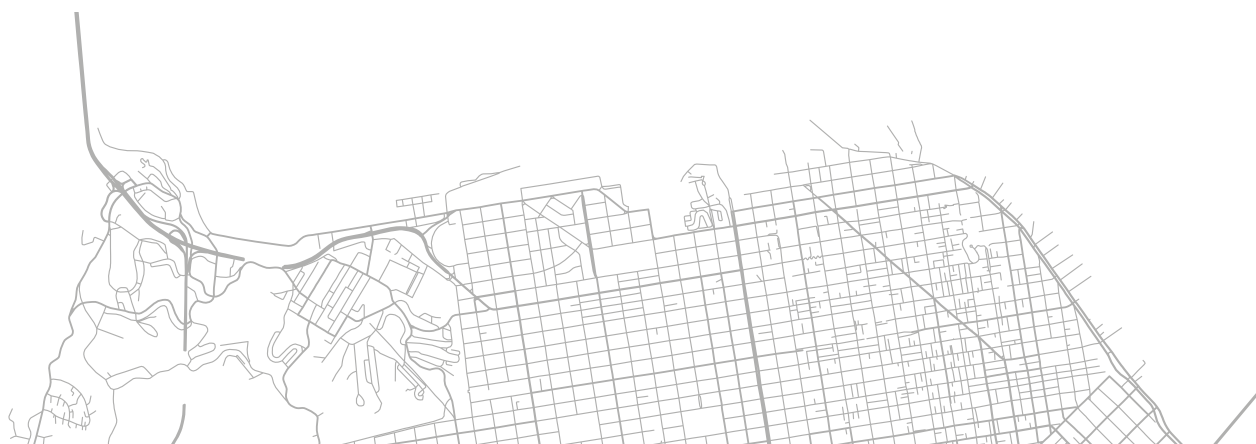
Whatever the day of operations holds in store, our operations modules put you in complete control to manage changes to planned service and assignments quickly and efficiently.

DAILY CREW [⊕]

Add Modules ⁺³

DAILY VEHICLE [⊕]

Add Modules ⁺³





FITS YOUR SPECIFIC REALITY

Our HASTUS solution is designed for what makes you unique. From different market practices to distinctive operating procedures and diverse collective bargaining agreements, HASTUS adapts to your reality.

HASTUS MODULES

Cover all your bases with your own selection of additional features and modules to put the full power of HASTUS to work for you.

NET PLAN

Additional modules available:

RIDER

VEHICLE

Additional modules available:

GEO

TIMETABLE OPT

MIN BUS

TRAIN OPT

ATP

RIDER

CHECKER ASSISTANT

CREW

Additional modules available:

CREW OPT

ROSTER

DAILY CREW

Additional modules available:

PLAN CREW

EPM

SELF SERVICE

DAILY VEHICLE

Additional modules available:

PLAN FLEET

PLAN MAINT

YARD ASSISTANT

Customer info:

HASTOP

HAST INFO

COMMENTS

Seamless integration

CONNECT

Get the most out of your data

ANALYTICS





UNPARALLELED OPTIMIZATION

Comparative tests consistently place HASTUS first against competing solutions. You can trust our powerful algorithms to optimize your planning, scheduling and daily operations and bring you significant efficiencies and savings while boosting employee satisfaction.

MODULE DESCRIPTIONS

PLANNING

NET PLAN[Ⓢ]

Helps you establish new or revised service levels on major routes or route segments, taking into account ridership data. *NetPlan* also helps you create base timetables that maximize the quality of the timetable from a customer perspective while minimizing vehicle requirements.

RIDER[Ⓢ]

Allows you to store ridership data from load and ride checks and to summarize this information on a route-by-route and time-period basis.



SCHEDULING

VEHICLE

A graphical scheduler designed to help you build efficient timetables and vehicle schedules for bus, rail and other fixed-route services. Multiple scenarios can be stored for different periods of the year or days of the week.

MIN BUS

Complements the *Vehicle* module with advanced optimization tools for vehicle scheduling. Optimize e-buses on a daily and weekly basis considering charging constraints.

GEO

Provides a geographic database, tools, and map display options that are seamlessly integrated with other HASTUS modules. More and more, public transport authorities worldwide are using geographic databases to support planning, operations, and public information. Typical capabilities include route planning, distance calculations, customer information, itinerary calculations, and interfacing with external systems and applications.

TIMETABLE OPT

Complements the *Vehicle* module with an algorithm that generates optimized timetables based on available resources, service guidelines and expected ridership when available.

CREW

Lets you build efficient operator duties to cover vehicle schedules. Automated and interactive procedures make it easy to cut vehicle blocks and combine pieces of work into valid duties while respecting hard and soft rules.

CREW OPT

Complements the *Crew* and *Vehicle* modules with advanced optimization capabilities for enhanced integrated vehicle and crew scheduling.

TRAIN OPT

Complements the *Vehicle* module with advanced optimization tools for rolling stock scheduling.

ATP

Helps you build run times by analyzing observed values and comparing them with current planned values. The observed times can be imported from other systems such as handheld computers, automatic vehicle location systems, and train control systems.

RIDER

Allows you to store ridership data from load and ride checks and to summarize this information on a route-by-route and time-period basis.

CHECKER ASSISTANT

This Android™ tablet-based application allows you to collect data for ride or point checks.

ROSTER

Helps you prepare efficient weekly or periodic crew assignments. Daily work and days off are combined into roster positions according to the practices of your company. Based on duties from *Crew*, *Roster* supports the building of 5-day rosters, 4-day rosters, or part-time rosters. It is also possible to manage rotations over multiple roster positions to allow the creation of more complex work patterns.

OPERATIONS

DAILY CREW[Ⓢ]

Allows you to manage weekly and daily changes to planned rosters and provides effective tools for day-to-day operations management. In seconds, dispatchers can enter employee absences and assign replacement workers to cover them quickly and accurately. *DailyCrew* provides up-to-date information on hours worked, vacation, sick leave, reserve lists, and other important information for efficient operations. Typically, detailed timekeeping of work performed is exported to a payroll system for final pay calculations.

DAILY VEHICLE[Ⓢ]

Typically used in combination with *DailyCrew* to modify or add trip-level information and manage vehicle assignment.

PLAN FLEET[Ⓢ]

An algorithm to optimize the day-to-day assignment of vehicles to blocks. Ensures that vehicles pull out on schedule, while respecting maintenance appointments and circulation constraints in the depot. PlanFleet also allocates parking spots automatically as vehicle pull in. With electric buses, PlanFleet considers energy requirements and adjusts charging activities automatically to deliver an optimal assignment solution.

PLAN CREW[Ⓢ]

A tool for optimizing the assignment of work to drivers/operators. It uses an advanced algorithm that assigns work automatically, taking into account employee preferences, working-time counters, satisfaction counters, work rules, and many other factors. *PlanCrew* offers a rules engine to define constraints for each assignment. The assignment of work can be done over periods ranging from a single day to several weeks, allowing the proposed solution to be reviewed carefully prior to posting.

EPM[Ⓢ]

Allows you to manage disciplinary measures and awards for employees based on rules configured in accordance with collective agreements. This module requires *DailyCrew*, with which it is fully integrated.

SELF SERVICE[Ⓢ]

A Web-based application, used in conjunction with other operations modules. Gives employees user-friendly access from anywhere to consult their assignments and other information, using a smartphone or other electronic device. Employees can also submit requests and receive the results.

YARD ASSISTANT[Ⓢ]

Lets you manage parking and charging in the depot as vehicles pull in and out, based on your business rules and constraints. It also helps you monitor maintenance activities and manage switching vehicles during the day.

PLAN MAINT[Ⓢ]

Optimizes preventive maintenance of the bus fleet, scheduling the various maintenance operations for each bus to ensure that maintenance resources are utilized equally. Mileage targets are established for each vehicle's maintenance operations. *PlanMaint* can be used over a horizon ranging from several years, to help prepare yearly maintenance budgets, down to an operational horizon of a few weeks, to manage the maintenance schedule.



CUSTOMER INFO

HASTINFO[®]

Provides schedule and trip-planning information to customers through your corporate Web site and call-handling facility, mobile devices, and other media.

HASTOP[®]

Designed to produce stop schedules for posting at each bus stop. Passing times are calculated based on vehicle schedules and stop-to-stop distances.

COMMENTS[®]

Allows you to register, follow up, and manage situations or events reported by customers and/or employees. Once the data is captured, configurable lists help you manage the information (e.g., list all comments regarding a specific employee or from a specific customer). This module can be configured to comply with or attain specific service-support standards, such as ITIL.

INTEGRATION TOOLS

CONNECT[®]

A suite of software integration tools that facilitates static and dynamic data exchange and interoperability between HASTUS and other applications and systems.

ANALYTICS[®]

Lets you configure and manage your data in schemas that are BI-ready for analysis with your existing dashboard tools. It provides rich, structured data that can be integrated into your current BI environment.



WHO WE ARE

GIRO is a global leader in optimization software for public transport planning, scheduling and operations.

Every day, our solutions improve quality of life around the world by helping move millions of people more efficiently.

From Los Angeles to Sydney, New York to Paris and Singapore, major cities around the world count on our software to drive forward their urban mobility.

By investing 30% of our resources into R&D we continuously advance our products and expertise in the industry. We empower our clients with robust and flexible solutions that solve their practical challenges and make their operations shine.

GIRO is the way forward.



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