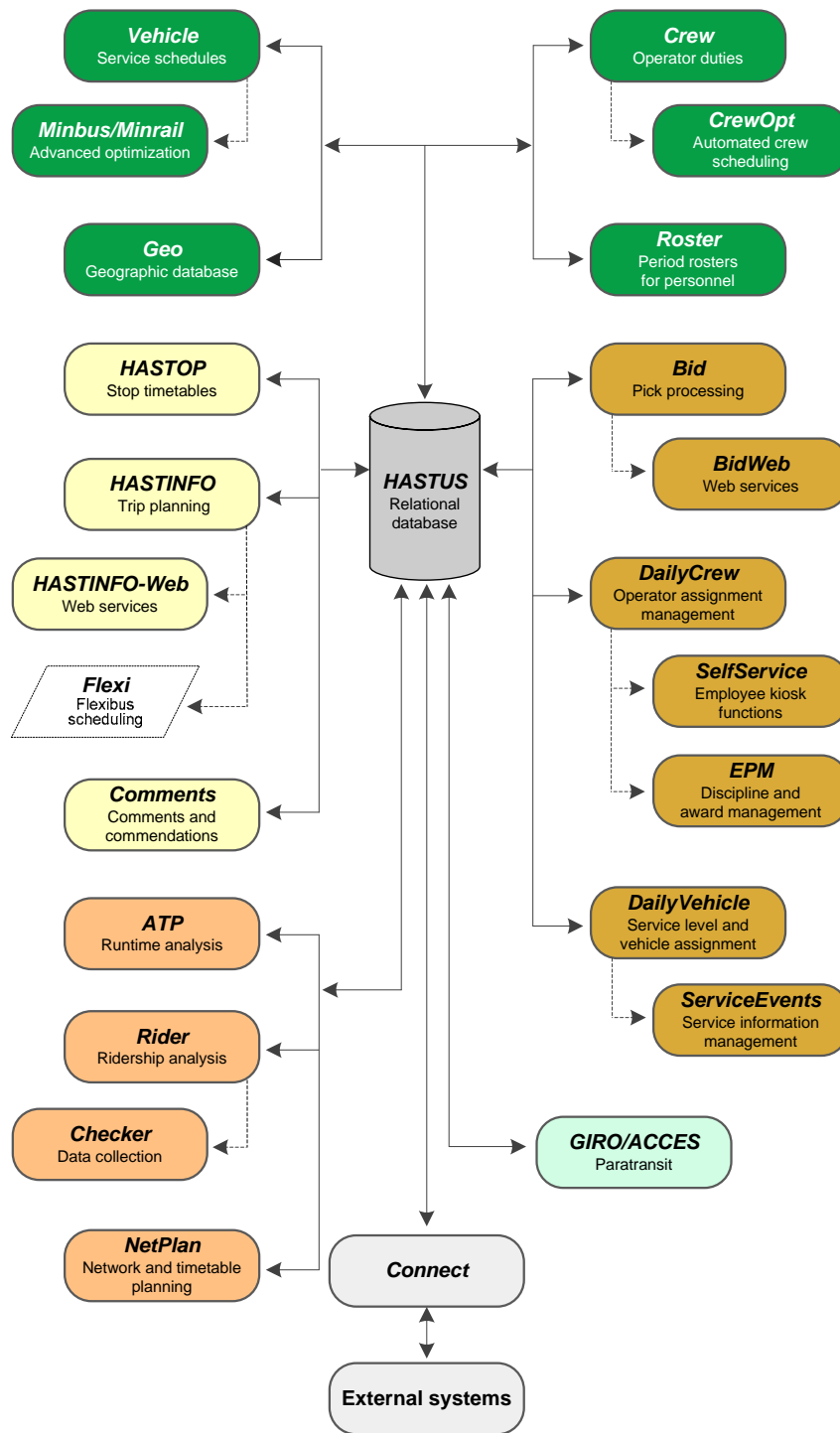




HASTUS

An integrated solution for transit scheduling and operations



● Scheduling
 ● Operations
 ● Customer information
 ● Analysis
 ● Integration tools
 ● Paratransit

Scheduling

■ **Vehicle** for service schedules

Vehicle is a graphical scheduler designed to help you build efficient timetables and vehicle schedules for bus (city, suburban, regional, and inter-city), commuter rail, light rail, subway, ferry, tram, and other fixed-route services. Multiple scenarios can be stored for different periods of the year or days of the week.

■ **Minbus/Minrail** for advanced optimization

Minbus is an optional module complementing *Vehicle* with advanced optimization tools for vehicle scheduling. *Minrail* offers specific optimization features for rail scheduling.

■ **Geo** for geographic database

Transit authorities worldwide are turning more and more to geographic databases to support planning and operations. Typical applications are route planning, distance calculations, customer information, disabled transportation, and automatic vehicle location. The *Geo* option provides a geographic database fully integrated with other *HASTUS* modules.

■ **Crew** for operator duties

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 daily duties while respecting hard and soft rules.

■ **CrewOpt** for automated crew scheduling

The standard *Crew* module provides a complete set of tools for interactive and automated duty creation and optimization. This base product may be sufficient for small and medium-size transit companies, or companies that do not wish to make important scheduling changes. However, crew scheduling results can be improved in most cases with our award-winning mathematical “runcutter” *CrewOpt*.

■ **Roster** for period rosters for personnel

Roster helps you prepare efficient weekly or periodic crew assignments. Daily work and days-off are combined into roster positions according to each company’s practices. *Roster* can handle regular 5-day rosters, 4-day or part-time rosters, as well as rotations over multiple roster positions.

■ **Employee** for updating and consulting personal employee information

An integrated employee module is offered with our rostering (*Roster*), bidding (*Bid*), and dispatching (*DailyCrew*, *DailyVehicle*, and *ServiceEvents*) modules. The employee module allows you to manage personal information for each employee and work assignment in accordance with collective agreements.

Operations

■ **Bid** for pick processing

Bid is an option available with *Roster*. It is useful for transit companies (mainly in North America) where duties and vacations are chosen in seniority order. With *Bid*, you can control the “pick” or “bid” process, keeping track of the duties still available and the choices made by each employee.

■ **DailyCrew** for operator assignment management

DailyCrew allows you to manage weekly and daily changes to planned rosters and provides effective tools for the day-to-day management of transit operations. In seconds, dispatchers can enter absences and determine who should fill the vacant work. Quickly and accurately, the system provides up-to-date information on hours worked, vacation, sick leave, reserve lists, and more, contributing to smooth operations and eliminating unnecessary errors. Detailed timekeeping on the actual work performed is then typically exported to a payroll system for final pay calculations.

DailyCrew integrates all operator assignment functionalities previously available in the RosterPlus and DDAM products (starting with version 2005).

■ **SelfService** for employee kiosk functions

The *SelfService* module, available in Windows® or Web-based version, is used together with *HASTUS*’ operation modules allowing operators to access certain operations’ functionalities through specialized screens.

■ **EPM** for discipline and award management

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

■ **DailyVehicle** for service level and vehicle assignment

DailyVehicle, is typically used in combination with *DailyCrew* when trip level information and modifications are required, and/or to manage vehicle assignments.

DailyVehicle provides all the functionality related to service level adjustment and vehicle management previously found in the DDAM module (starting with version 2005).

■ **ServiceEvents** for service information management

ServiceEvents is an optional module intended for operators, road supervisors, and dispatchers. This module allows reporting service disruptions and record observations related to ongoing operations. A variety of functionalities is provided to broadcast the information through GIRO’s operation (*DailyCrew* and *DailyVehicle*), and customer information (*HASTINFO*) modules.

Customer information

■ **HASTOP** for stop timetables

This optional module is designed to produce schedules suitable for posting at each bus stop. Passing times at each stop are calculated based on vehicle schedules and stop-to-stop distances.

■ **HASTINFO** for trip planning

The *HASTINFO* trip planning and schedule information system provides schedule and trip planning information to transit customers, through transit call centers, Web sites, and other advanced media. Fully documented Web services provide access to schedule and trip planning functions, allowing Web designers to integrate these features into your Web site, or with other media such as WAP, SMS, or IVR (Interactive Voice Response). The use of standard such as SOAP, XML, WSDL, and HTTP ensure interoperability of *HASTINFO* components with your existing and future Web applications.

■ **Flexi** for flexibus scheduling

Flexi is used in combination with the *HASTINFO* trip planning module to suggest itineraries making use of flexible routes servicing a given territory. *Flexi* also allows customer representatives to book trips for clients making use of these routes.

■ **Comments** for tracking customers comments and commendations

This module allows you to register, follow up, and manage situations or events reported by customers or employees. Once captured, configurable lists help you better manage this information, for example listing all comments regarding a specific employee or from a given customer. *Comments* can be easily configured to comply with or to attain specific or recognized service support standards (ITIL).

Analysis

■ **ATP** for runtime analysis

This optional module assists you in building runtimes by analyzing observed values from a vehicle location or laboratory bus system and comparing them with current planned values.

■ **Rider** for ridership analysis

This optional module 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** for data collection

This optional module, for hand-held computers, facilitates data collection. It is based on using Microsoft Pocket PC[®] technology. *Checker* includes two-way interfaces with *Rider*.

■ **NetPlan** for network and timetable planning

NetPlan, available since *HASTUS 2007*, helps you establish new or revised service levels on major routes or route segments.

Paratransit

- **GIRO/ACCES**
for paratransit scheduling

GIRO/ACCES provides a complete solution for paratransit reservations, scheduling, and dispatching.

Integration tools

- **Connect**
for integration tools

Connect is a suite of software integration tools that facilitates communication between *HASTUS* and other computer applications. *Connect* significantly improves IT connectivity and represents a shift towards Service-Oriented Architecture (SOA) for the purpose of facilitating data exchange and interoperability with other applications and systems.

About GIRO – *GIRO is a leading provider of software solutions for public transit services including bus, tram, subway, trolley, and commuter rail transportation. The company's HASTUS solution offers comprehensive applications and innovative tools for improved planning and scheduling, daily operations, customer information, and more. HASTUS combines advanced operations research optimization techniques with powerful data management tools that deliver tangible benefits for public transit associations and private operators alike. Based in Montreal, GIRO serves customers in Asia, Australia, Europe, and North and South America. For more information on GIRO or HASTUS please visit our website at www.giro.ca.*

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