



List of contents	Page
GENERAL DESCRIPTION OF IMPORTANT FUNCTIONALITIES	3
INTERFACES	5
Retrieval of master and movement data	5
Data feedback	5
ENTITLEMENTS	5
ORDER ENTRY AND HANDLING	6
Order entry	6
Order list	6
Summary of recorded orders	7
Carrying positions in order handling (supplementary module)	7
TOUR PLANNING	8
Tour planning	8
Graphic presentation of orders	9
Summary in table form Totals window	9 10
Order selection	10
Komplettübersicht	11
PRA®MAP road network (external, incorporated licence)	11
PLANNING PROCEDURE	12
Free optimisation	13
Automatic revision of planned orders (Best tour) (supplementary module)	13
Cost calculation	14
COST COMPARISON (supplementary module)	14
Toll calculation	15
Tour list	16
Applications planning for driver and vehicle	16
AUTOMATIC FAX NOTIFICATION (supplementary module)	17
FREIGHT INVOICING – <i>TLT 3000</i> (supplementary module)	17
CUSTOMER-SPECIFIC TRANSPORT COST INVOICE <i>TLK 3000</i> (supplementary module)	20
PRINT-OUTS	21
FORWARDER PACKAGE PRA®SPED 3000	22
TRANSPORT EQUIPMENT ADMINISTRATION (supplementary module)	23
MODULES FOR COMMUNICATION TO WAREHOUSE AND PRODUCTION CONTROL AND	
MERCHANDISE ADMINISTRATION	24
FINISHED-OUTPUT CONTROL (supplementary module)	25
STRATEGIC / OPERATIVE PLANNING (supplementary module)	26
INTRANET RECORDING (RECORDING ORDERS AND PUTTING ON-LINE)	27
SET POINT / ACTUAL VALUE COMPARISION	28
Manual data acquisition	28
Automatic data acquisition (on-board computer)	28
CARD EDITOR	29
MANAGEMENT INFORMATION SYSTEM (MIS), ANALYSIS AND KEY DATA	30
SUPPLEMENTARY MODULES FOR EXTENDING PRA®CAR 3000.	31
OPTIONS IN CONJUNCTION WITH TELEMATIC SOLUTION	34
Version 2.1	

All rights reserved to legal title to and copyright of descriptions of processes, procedures and organisation, plans, drawings, quotes and other documentation. We also reserve these rights when the ordering party has made alternations to this documentation.

This documentation may only be passed on to third parties and duplicated with our express permission in writing.



Scope of the tour planning and control system with its modules PRA®CAR 3000 or PRA®SPED 3000

GENERAL DESCRIPTION OF IMPORTANT FUNCTIONALITIES

General

- ▲ The system can be administered centrally and made available for branches with a user concept
- Access can be given to a wide array of functionalities by means of an entitlement concept
- All of the process described in the following are user-friendly and based on practical work
- Additions, cuts and modifications for the can be made to the programme easily for each company

Planning

- ▲ Planning takes into account the customer's delivery deadlines, wishes and restrictions, and arranges handling for merchandise with the lowest transport costs
- A Bottlenecks in the manufacturing process (production planning) can be taken into account before planning tours
- Orders can be optimally allocated to a tour via the functionality "best tour"
- ▲ Planning can be carried out via one or more transhipment depots
- ▲ Formation of several tour versions
- The tour routes are automatically optimised to cover a wide variety of road networks (e.g. at a house number level) with the lowest costs
- ▲ The personnel and vehicle capacity required for the most cost-efficient delivery and collection is determined by the system
- The deployment of drivers and vehicles is planned precisely in accordance with predetermined driving/working hours, avoiding recipients' off-hours
- ▲ Notification of planned arrival times can be sent automatically by fax, e-mail or using a call list
- ▲ Strategic operative planning of simulated order volumes taking into account delivery rhythm, delivery days and sales volumes

Settlement/costs

- ▲ On-line calculation of income/expenditure of a tour
- The costs of the tours can be determined immediately for the purpose of delegating them to the user's own fleet or a subcontractor in order to make the most cost-efficient delivery.
- ▲ Vehicles are administered, for third parties, too, invoiced and current account balances passed to customers
- ▲ flexible credits and invoices concerning subcontractors, invoice recipients, customers, distributing forwarder etc. are shown
- Invoicing of the proportional toll costs observing the toll charges set by the federal ministry of transport and the autobahn kilometres calculated in the tour planning process (only possible in connection with *PRA®MAP* road network)
- ▲ Transport costs are assigned directly to the customer and meaningful evaluations produced such as the average value against costs per ton for a customer or several customers in a specific period
- The activities and time required by a driver are checked using the specifications and form the basis for payment of a performance-related wage



Evaluations

- The documentation required for delivery such as load lists, tour lists etc. are produced and, in doing so, modified to suit standard or user-specific reports
- ▲ Data required for decisions in planning and management are secured statistically and evaluated

Interface

▲ To permit a wide scope of data exchange with upstream and downstream IT systems such as SAP, MBI, BAAN, Navision etc.

Project preparation

Information discussion

- Interested party's requirements
- ▲ Service provided by Wanko Informationslogistik GmbH

For standard tasks

- ▲ Determining the scope of service required
- Data analysis. where desired
- Determining the interfaces
- Training and introduction of the standard software

Organisation analysis for complex requirements

- Recording of the current status with analysis of critical points
- ▲ Proposal of the future procedure and the measures to be carried out, stating the outlay and costs
- Determination of cost-savings, where desired
- Determination of the required interface to the HOST and of the data transfer
- ▲ Recommendation of required IT structures
- ▲ Communication vehicle <> control centre (possible with telematics solution)
- Determination of services
- Training and introduction of the new procedure and programmes
- Trainer training



INTERFACES

Retrieval of master and movement data

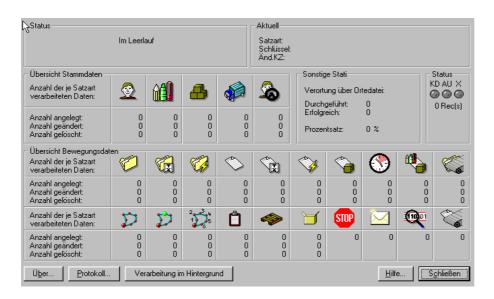
Retrieval of all the data in the HOST required for processing:

- ▲ Customer file once, changes and new customers continuously (automatic location of the customer)
- Order file with positions, continuously
- Item file, where required
- Complete tours

Data feedback

After processing the data on the PC, feedback of all the data required or desired for further processing in the HOST, e.g.

- Delivery deadline
- Production deadline in manufacturing companies
- ▲ Tour number, delivery day, time and sequence
- Status report of effected provision, loading and delivery
- ▲ Delivery deadline confirmation
- and much more



ENTITLEMENTS

Specific programme sections and functionalities can be individually assigned to different users. The "rights" for this are coordinated with the range of programmes. The user can see from the menu bar which functions he has access to and which are barred.

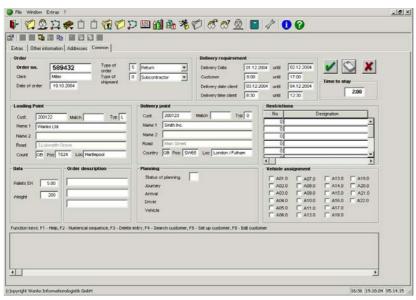


ORDER ENTRY AND HANDLING

Order entry

The mask "order entry" can be created individually using

- a standard mask without pre-entered values or
- masks with fixed values already entered.

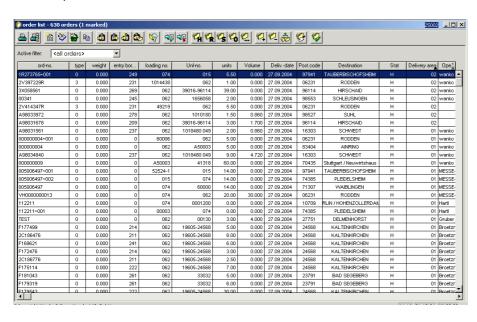


Standard mask for order entry

Order list

The order list enables, for example,

- ▲ all quotes to be viewed that were made for a loading location in a certain period
- all orders not yet invoiced in a certain period to be listed for invoicing a particular customer
- plus much more



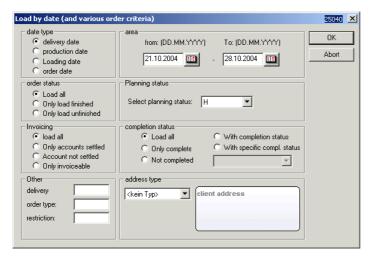
Complete summary of recorded orders for order handling



Summary of recorded orders

Recorded orders can be viewed in accordance with a variety of criteria, e.g.

- delivery date
- manufacturing date
- status
- and many more

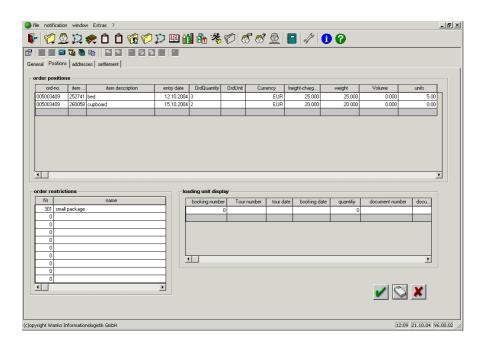


Filter for the recorded orders in accordance with set criteria

Carrying the positions in order handling (supplementary module)

Handling orders and carrying the individual positions is possible, e.g.

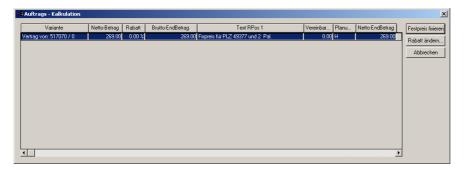
- resetting orders and individual positions
- division of orders and positions



Order handling and carrying the positions



- setting up deliveries, collections, returns
- calculating quotes (using the filed terms and conditions)
- and setting a price for an order (only possible with the supplementary module Immediate Order Settlement)



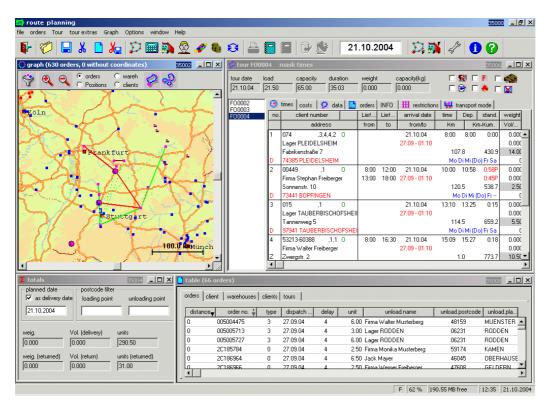
Quote/order calculation

TOUR PLANNING

Tour planning

The largely user-defined configuration of the screen masks, window sizes and positions enables all the data relevant for operation planning to be presented clearly, such as:

- graphic presentation of the orders,
- tour window,
- order table,
- totals window

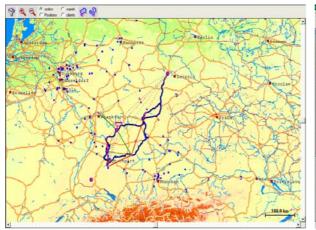


Full overview of tour planning using *PRA*®*MAP* basic European road network



Graphic presentation of orders

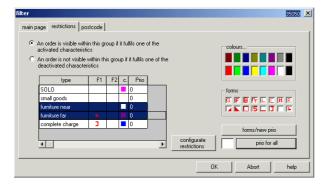
Display of loading and unloading locations, depots, distribution centres, service providers, vehicle location, tour route etc. always for the current situation.





Display of orders on the road map

Display of orders in the graphic window



Description of filter symbols

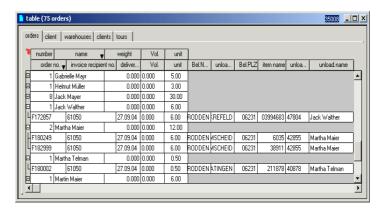
Summary in table form

List of the orders selected in the graphic display (customers and suppliers) with information about

- delivery and collection volumes, individual and combined
- arrival and departure times
- restrictions
- and much more

The view

- is freely configurable
- can have up to 6 list structures per table
- an be sorted by mouse-click
- has grouping functions

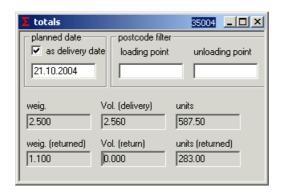


Tour planning – Orders displayed in the table



Totals window

Display of the totals for delivery or collection orders in the order table.

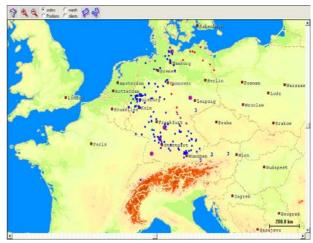


Display in the totals window

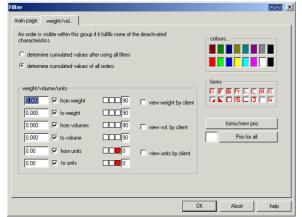
Order selection

Selection of the required orders from the order file according to

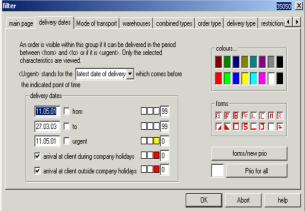
- Order type
- ▲ Areas, numerical / graphical
- ▲ Dates/times/deadlines
- Order size
- Delivery type
- Dispatch type
- Restrictions
- ▲ Delivery deadline confirmation
- Production date/time
- ▲ Completion number
- Postal loading and unloading points
- Countries
- Freely definable zones
- Order date
- and many more



Filter of orders by area / graphical







Filter of orders by delivery dates/times

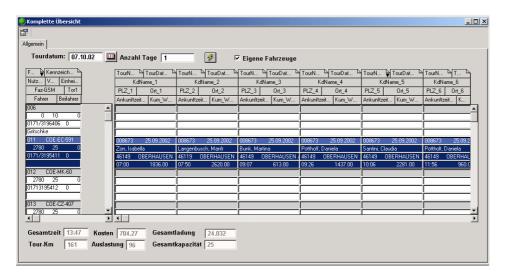


Complete overview

To achieve a better overview when distributing the tours amongst the vehicles, a complete overview of all the tours of a certain period can be displayed on the screen. Tour data can be altered manually (e.g. removal from or addition to a tour using Drag & Drop). The alterations are calculated immediately and displayed.

Depending on whether the vehicles are the user's own or foreign and the defined period of time, the following points are displayed in the overview:

- vehicle list
- ▲ list of the tour positions per vehicle
- ▲ Total line boxes of the selected vehicle (total time, tour distance in km, costs, total loading, total capacity, capacity utilisation)



Full overview

PRA®MAP road network (external, incorporated licence)

Different road networks can be incorporated into our tour planning system such as:

Module **PRA**[®]**MAP** Europe Basis II (external, incorporated licence), contains Europe's main roads including an index of place names in central Europe



PRA®MAP Europe Basis road network (external, incorporated licence)

including Germany, Austria, Switzerland, Italy, France, Benelux, Liechtenstein, Czech Republic, Poland etc. (41 countries in total), 200,000 locations with postcode (where available). ROUTE specification, location points, street names, road categories, road types, edges with start and finish nodes, edge lengths, one-way streets, ahead-only roads.



▶ PRA®MAP German road network module at house-number level (external, incorporated licence), contains all passable roads in Germany



PRA®**MAP** German road network at house-number level (external, incorporated licence)

Street names and categories, symbol style, road type (driving speed), road junctions and length, one-way streets and turning restrictions, street directory Type A, places, topographic layer: inhabited areas (where they exist). Possible down to house-number level (where required).

PLANNING PROCEDURE

Tour planning with optimisation can be carried out with the following preset data:

- Closed or open tour
- ▲ The first and/or last destinations in the tour sequence can be preset.
- ▲ Consideration of restrictions (special vehicle types)
- Special times
- Customer's opening times
- ▲ Automatic allocation of driver's breaks
- ▲ Vehicle's loading

This can be done as follows:

- Manual tour planning
- Automatic assignment of selected orders to a tour
- Automatic assignment of selected orders to several tours (free optimisation)

A variety of optimisation processes are available for dealing with different problems. These are calculated simultaneously in the background. The optimum result is applied. The alternatives can be provided as variants.

The optimisation process itself is performed using a dense road network with road grades (km/h), tailored to suit the customer's structure, and real distances for every section of the route with the costs of the driver and vehicle. This is the only method of optimising the route. Real cost optimisation is not possible using a table of distances instead of a road network.

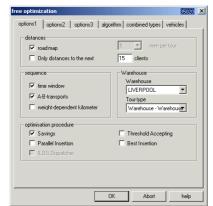


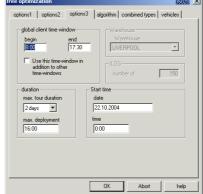
Manual tour-planning optimisation

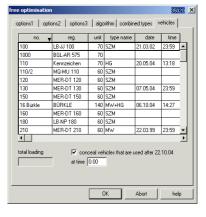


Free optimisation

- Vehicle approach options
- Definition of any origins and delivery destinations
- Maximum deployment times
- Vehicles e.g. only solo vehicles
- ▲ Alteration option filing different variations of a tour
- Option of immediate alteration of any automatically planned tour plus filing of every variation for comparison.
- ▲ Constant reaction to demands from routine work during planning such as incorporating latecomers, restrictions, answering queries etc. by means of
- ▲ Graphic overview for manual planning (drag&drop)
- ▲ Supplementary module "Best tour"
- ▲ Constant option of calling up information with a rapid overview of the main key data such as order situation, restrictions etc. with regard to master data, order composition, order alterations etc.
- ▲ Print-out of tour lists and loading lists, deployment plans etc. as required







Free optimisation by distances

Free optimisation by time window/duration

Free optimisation vehicle selection

AUTOMATIC REVISION OF PLANNED ORDERS (BEST TOUR) (Supplementary module)

Using the "Best tour" function, orders at short-notice can be added after a tour has already been planned. Low-cost tour suggestions are made after the order has been selected. The order can ultimately be assigned to a suggested tour.



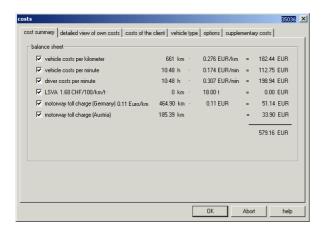
Automatic planning revision (Best tour)

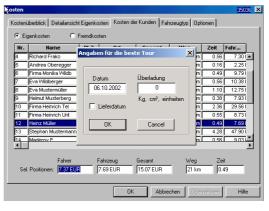


Cost calculation

Immediate calculation of the cost of every tour and determination of the proportional cost per customer

- Own costs
- Cost of outside services
- Forwarder costs
- Comparison



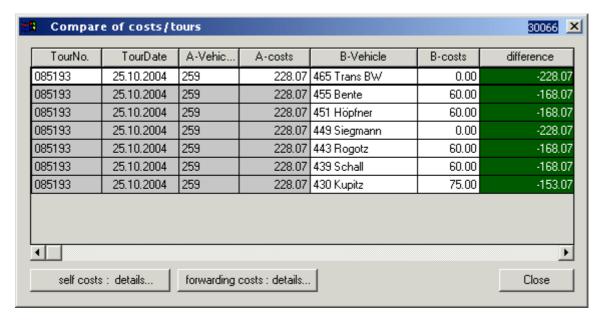


Cost calculation - customer's costs

Cost calculation / overview of costs

COST COMPARISON (SUPPLEMENTARY MODULE)

Own or outside costs can be ascertained easily using the tour-planning system. This permits a quick decision to be made on assigning the tour to the own or outside fleet. (only possible in conjunction with freight invoicing module *TLT 3000*)

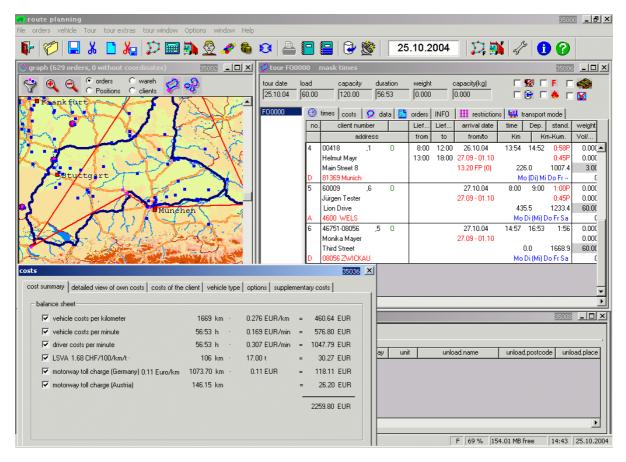


Cost comparison



Toll calculation

In the quote calculation, tour planning and freight invoicing, the proportional toll costs can be calculated quickly and invoiced to the customer (prerequisite is the *TLT 3000* freight invoicing module). Toll charges can only be calculated in conjunction with our module *PRA*[®]*MAP* road network.



Toll calculation

The following items can be displayed individually:

- ▲ Distance-related toll charges when planning a tour.
- ▲ Toll cost per order
- ▲ Toll cost per customer, loading/unloading point
- Extra costs for the tour (total costs)
- Toll cost per customer, loading/unloading point

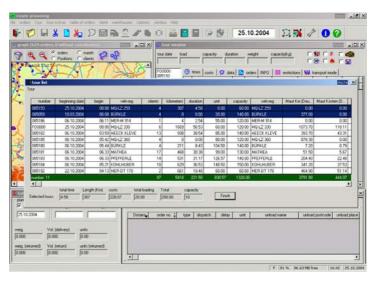
Additional functions such as these are available in conjunction with the telematic option:

- Variance comparison of the driven tour
- Exact settlement for autobahn kilometres actually driven.
- Checking paid toll charges



Tour list

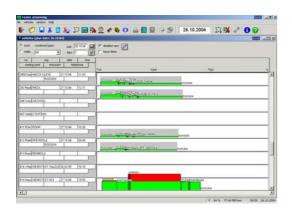
- ▲ The tour summary provides information about
- Tour costs
- Fixed costs
- Vehicle
- ▲ Trailer
- ▲ Start/finish
- ▲ Distance travelled (km)
- ▲ Capacity utilisation
- Remarks about the tour
- ▲ Plus many more

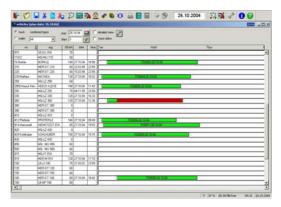


Tour list

Applications planning for driver and vehicle

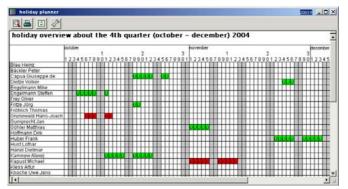
- ▲ Graphical and alphanumerical applications plan
- ▲ Tour start and finish stating the place
- ▲ Display of the date and time of return of every driver and vehicle
- ▲ Display of non-availability due to illness, holiday, service and repairs
- ▲ Suggestion and entry of breaks
- Entry of special times





Vehicles view

A condensed vehicles view



Holiday planning

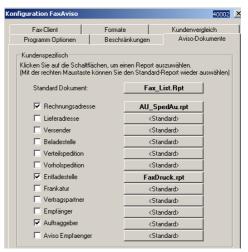


AUTOMATIC FAX NOTIFICATION (SUPPLEMENTARY MODULE)

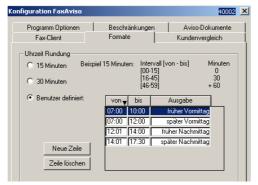
Once planning has been completed, one or more tours can be selected for which notification can be sent automatically by fax, e-mail or call list.



Notification options



Notification document settings



Notification formats

FREIGHT INVOICING - TLT 3000 (SUPPLEMENTARY MODULE)

Our freight invoicing module offers you the means of:

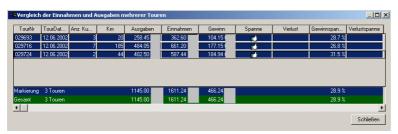
- on-line calculation for a tour during planning
- calculating and printing out toll charges (only possible in conjunction with PRA®MAP road network) for
 - the whole order
 - each order proportionally
- producing invoices for
 - ▲ tours
 - orders
 - entry bordereau
 - other



Invoice



- Distribution of the incurred costs for each order, special expenses can be taken into account
- production of credits for tours and others
- ▲ comparison of income / expenditure of one or more tours



Comparison of income and expenditure

- comparison of different contracts
- settlement of loading aids (means of transport)
- settlement of warehouse charges
- cost summary for one or more tours



Cost summary

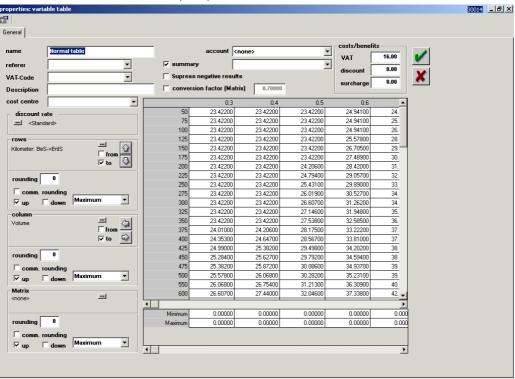
- Document selection by
 - document no.
 - document date
 - document recipient
- 10-day invoicing
- Production of collective-entry documents
- ▲ Display of up to 10 invoicing and credit items to a wide variety of document recipients



Invoicing items configuration

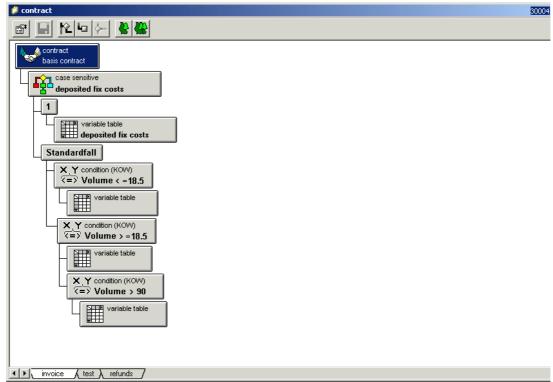


▲ Access to standard tariffs GFT, GU, BSL etc.



Standard rates and charges

Display of complex forms of contract



Contract



CUSTOMER-SPECIFIC TRANSPORT COST INVOICE *TLK 3000* (SUPPLEMENTARY MODULE)

The customer-specific transport cost invoice is a selectable cost analysis that shows the profitability of each customer or tour on the basis of the tour costs from the tour planning process and the entered revenues.

Customer-specific transport costs are presented on a pro rata basis. Selection criteria include

- tour duration from/to
- consignee customer, country and
- postcode from/to

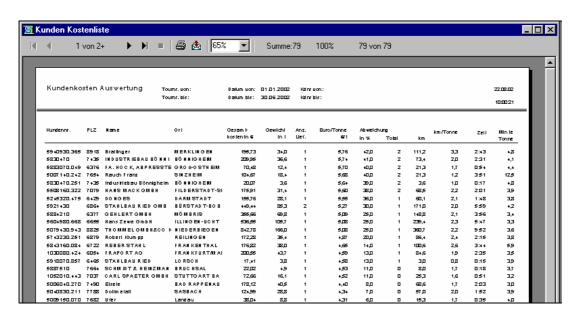
Cost analysis

- Cost accounting per customer (including destination [customer] from – to, details for each delivery and driving, stationary, and total hours, volumes etc. stating deviation of monthly values from average)
- Cost accounting per tour, stating
 - mode of transport, kilometres etc.
 - percentage and absolute deviation from average



Filter for costs to destination

▲ Comparison of the determined costs per customer, comparison of the entered and recorded revenues or margins of individual deliveries.

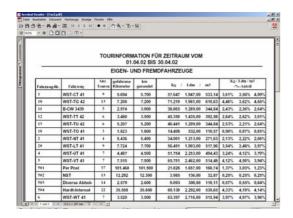


Customer cost analysis

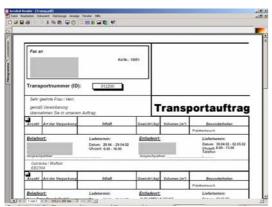


PRINT-OUTS

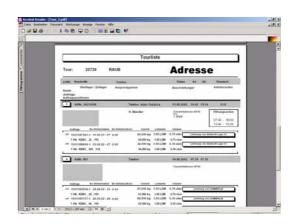
- Tour lists
- Loading lists stating every position, assignment to truck or trailer, and storage space for collection.
- ▲ Transportation order
- Forwarding order
- Storage space or wagon number on to which the goods are to be set.
- Freight documents z. B. CMR, KVO
- ▲ Tour statistics (Tour analysis)
- Cost statistics
- Analysis Forwarder logbook
- Vehicle capacity utilisation
- Bordereau
- Invoices
- Credits
- ▲ Other options / adjustments can be made against a charge upon request



Tour information own/outside



Transportation order



Tour list

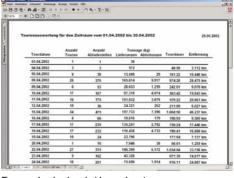


Consignment note

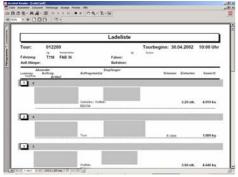




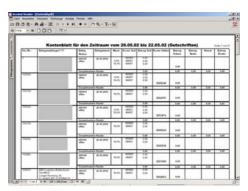
Loading list



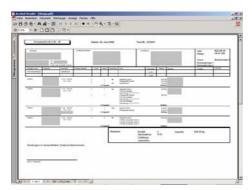
Forwarder logbook / Log sheet



International waybill



Tour analysis



Outgoing bordereau

FORWARDER PACKAGE PRA®SPED 3000

The functions in tour planning and freight invoicing have been put together in a special package for forwarding processes.

(PRA®SPED 3000 = Basis PRA®CAR 3000 + freight invoicing module TLT 3000)

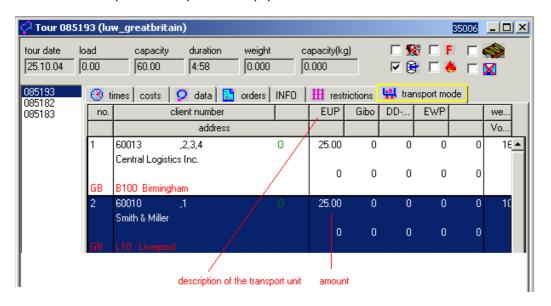
The *PRA*[®]*CAR 3000* functions the industry requires are accessible as well. These particularly include:

- ▲ Incoming and outgoing bordereau
- Consignments to predefined postcode areas



ADMINISTRATION OF TRANSPORTATION EQUIPMENT (SUPPLEMENTARY MODULE)

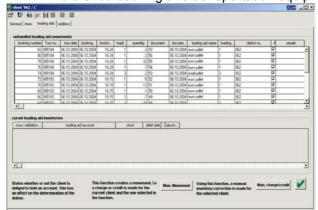
Information is provided of each customer's quantity and ownership details as well as liabilities and receivables via a specific transportation equipment account.



Transportation equipment administration

Transportation equipment administration functions:

- ▲ Automatic posting of the transport equipment upon delivery
- Manual input of returns via recording mask
- A Recording of initial inventories with subsequent correction of existing entries
- Print-out of pallet and return note
- List per destination / Loading-aid statement
- Current inventory, coordination date and printing date
- Monthly settlement including accompanying letter and statement showing status / information about transportation equipment per postcode area and customer
- Distributed booking options e.g. loading / unloading point and hauler summary account for reference booking and transportation equipment and much more





Inventory account

Loading-aids movements



MODULES FOR COMMUNICATION TO WAREHOUSE AND PRODUCTION CONTROL AND MERCHANDISE ADMINISTRATION SUCH AS SAP®, BAAN ETC.

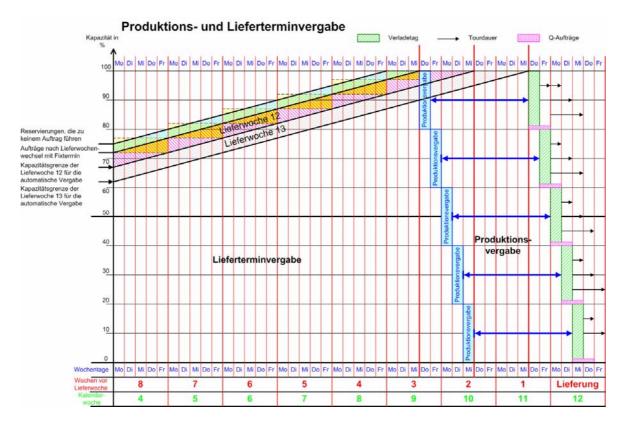
These modules largely prevent incorrect items; if incorrect items arise nevertheless, they are detected in time and not planned into the tour.

Allocation of delivery times

Delivery times are allocated taking into account production capacity, procurement and throughput time in the various production sectors, stock levels and delivery periods from upstream suppliers, and delivery areas.

Production dates

Production dates and feedback upon completion are given taking into account delivery deadlines, production capacities and throughput times in the various production sectors and the most efficient delivery.



Production and delivery date allocation



FINISHED-OUTPUT CONTROL (SUPPLEMENTARY MODULE)

Interface

- Adoption of production line allocation in minutes or units per order (position)
- Feedback to host of planned orders stating tour/tour sequence

Assignment of daily output

- Automatic allocation of planned tours taking into account the capacities in up to 20 restrictive work areas (production lines) to the individual production days
- Manual changes down to the level of individual positions

Optimisation can take place evenly-spread over several weekdays or for optimum production line capacity:

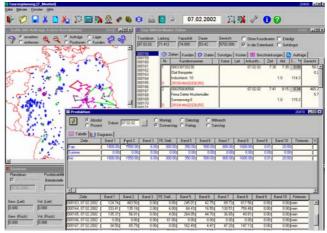


6.00 Band 3 6.00 6.00 6.00 350.00 350.00 350.00 350.00 300.00 500.00 500.00 500.00 500.00 500.00 Band 6 1300.00 1300.00 1300.00 300.00 050.00 Band 8 2500.00 2500.00 2500.00 2400.00 1750.00 Band 9 Band 10 20 NN 20 NN 20 NN 20 NN Band 11 6.00 6.00 6.00 6.00 6.00 80.00 80.00 80.00 80.00 80.00 0.01 0.01 0.01 0.01 0.01

Optimisation dialogue

Determining production line capacity per production day

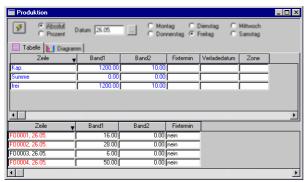
Once the tours have been put together, the production line capacities can be assigned for the output. The finished output can be checked via the tour planning process:



Production dialogue, heading



In this register, the previously selected tours are listed in the lower section. These are now booked using the command **Optimise** from the menu **Production lines**. The result can be extracted in absolute figures or a percentage or as a graph:





Production dialogue, register table

Production, register graph

STRATEGIC / OPERATIVE PLANNING (SUPPLEMENTARY MODULE)

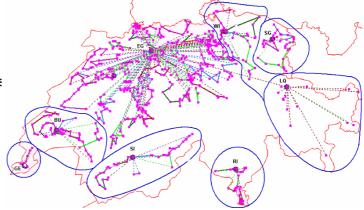
Strategic planning of simulated order volumes depending on delivery rhythms, delivery days and turnover volumes.

Volume determination

- from turnover
- per range and plan day
- per delivery day
- and weeks with bank holidays

Customer selection by

- ▲ type of order, range
- delivery days, delivery frequency
- area



Graphic presentation of customers, stating volume in the mode of transport and kilograms per range

- sum per selected area or postcode area
- individually per customer



Specifying the directions

- Customer selection by range, delivery day or delivery frequency for the plan day
- ▲ Specification of time restrictions per product range and customer
- Specification of the direction
- ▲ With set trip sequence that has emerged in this direction from the optimisation of all customers and which contains all the restrictions
- alternative: assignment of customers in the respective direction for free planning later on taking all the restrictions into account

Costing for the own fleet of vehicles

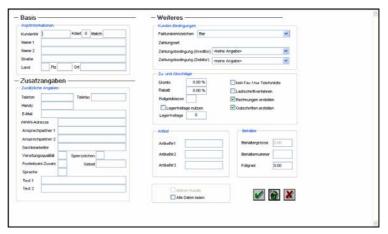
- statement of the absolute costs and costs per palette or container trolley
- determination and display of prime costs for the planned tour
- ▲ determination and display of prime costs for individual destinations

INTRANET RECORDING (RECORDING ORDERS AND PUTTING THEM ON-LINE)

Parties connected to the network (Intranet) can record and handle orders using Intranet recording. The status and progress of the orders is visible for parties. Access is obtained though an individual, password-secured code.



Order recording by Intranet



Customer recording by Intranet



SET POINT / ACTUAL VALUE COMPARISON

Manual data recording

The planned tour dates can be compared with the actual tour-relevant data and analysed. Actual data is recorded manually.

The results of the set-point /actual-status comparison are presented in a report. Any deviations are displayed in absolute figures and in percentages.

The set-point /actual-value report can be generated with the following criteria:

- vehicle-or driver-related
- from-To date or single date
- ▲ choice between standard report and detailed report
- choice between own or subcontractor vehicles

				Fahr	zeuga	uswertung v	vom 18.10.:	2002 bis 24.	10.2002 f
		Beginn	Zeit	Ende	Zeit	Gesamtzeit (hh:mm)		Fahrzeit (hh:mm)	
Datum	Tournr.	lst	lst	lst	lst	lst	Diff %	lst	Diff %
		Soll	Soll	Soll	Soll	Soll	Diff abs	Soll	Diff abs
18.10.02	572457	18.10.02 18.10.02		19.10.02 18.10.02	04:16 19:30	9:39 10:25	-7,4% - 0:46	9:03 7:18	24,0 % 1:45
21.10.02	572545	21.10.02	14:03	22.10.02 21.10.02	13:48 17:47	5:14 7:31	-30,4% - 2:17	5:08 4:51	5,8% 0:17
22.10.02	572626	22.10.02 22.10.02	13:55	23.10.02 23.10.02	08:32 12:10	8:05 10:10	-20,5% - 2:05	6:59 8:42	-19,7% - 1:43
23.10.02	572707	23.10.02 23.10.02	09:12	24.10.02 24.10.02	09:21 08:08	8:22 5:02	66,2% 3:20	7:01 2:46	153,6% 4:15
						31:20	-5,4%	28:11	19,3%
						33:08	- 1:48	23:37	4:34

Vehicle analysis

The following tour-relevant data can be recorded as actual value data and compared:

- beginning and end of the tour
- vehicle and driver
- driver's regular times (driving and stationary periods, driving breaks, breaks, overnight stops) as well as special times (e.g. waiting for unloading)
- kilometres
- ▲ litres (refuelling and consumption)

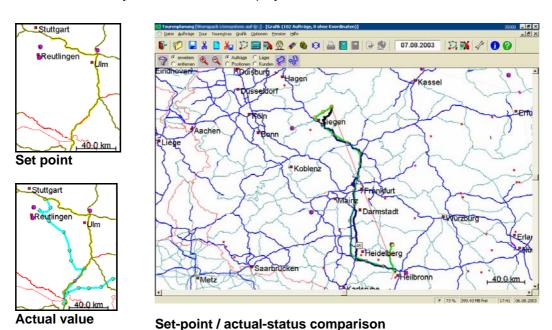
Automatic data recording (recording via on-board computer)

Actual-status data recording is performed by the driver during his tour using the telematic system's on-board computer. The data is transferred to **PRA®CAR 3000** via an interface with the recorded GPS coordinates of the tour actually driven. Changes in quantities and the tour status are presented in updated form in the tour plan.



The recorded data can be presented differently in the set-point /actual-status comparison:

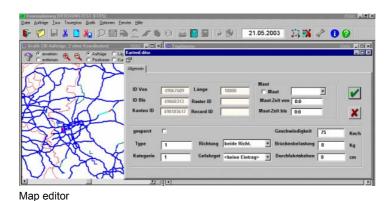
- ▲ set-point /actual-status comparison with report see set-point / actual value comparison (manual data acquisition)
- Graphic presentation: the planned and actual tour can be presented on the **PRA®MAP** road map. This is a particularly good idea when larger-scale deviations arise in the report and the precise route/tour taken by the driver is to be displayed.



MAP EDITOR

The map editor enables the user to edit the road network to suit his/her requirement. The following restrictions can be set for a particular section of road:

- Hazardous goods information
- Speed reductions
- ▲ Bridge loadings / clearances
- Road closures
- Toll roads
- and many more



Processed roads can be highlighted in colour. The data is stored separately and is not lost when the road network is updated!



MANAGEMENT INFORMATIONS SYSTEM (MIS), ANALYSES AND KEY DATA (MODULE IN DEVELOPMENT)

- MIS offers decision-makers the option of using ready-made analyses or determining their own key data.
- ▲ The analyses can be produced with any parameters; e.g. by orders per client

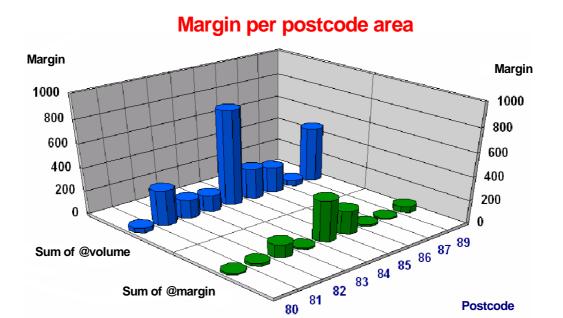
Auftra	ig A	۹-Art	Tour	Gewicht	Volumen	Einheiten	Einnahmen	Ausgaben	Marge
Aufträge in Lie	fergeb	iet PL	.z 80						
01295		4	990471		0,20		39,02	26.00	13,02
Summe Plz: 1	1		1		0,20		39,02	26,00	13,02
Aufträge in Lie	fergeb	iet PL	.Z 81					•	
01295	58	4	990471		1,50		89,52	67.50	22.02
Summe Plz: 4	1		1		1,50		89,52	67,50	22,02
Aufträge in Lie	fergeb	iet PL	.Z 82		·				
01294	48	4	990501		0,40		36,59		36,59
01295	55	4	990501		1,20		72,99		72,99
Summe Plz: 2	2		1		1,60		109,58		109,58
Aufträge in Lie	fergeb	iet PL	.Z 83		•				
01295	56	4	990471		0,70		51,62	38,50	13,12
Summe Plz: 1	1		1		0,70		51,62	38,50	13,12
Aufträge in Lie	fergeb	iet PL	Z 84						
01297	70	4	990451		8,10		346,78		346,78
Summe Plz: 1	1		1		8,10		346,78		346,78
Aufträge in Lie	fergeb	iet PL	.Z 85		•		•		
01296	88	4	990451		1,40		96.68		96.68
01298	30	4	990501		0,02		40,59		40,59
01418	38	4	990501		1,20		60,99		60,99
Summe Plz: 3	3		2		2,62		198,25		198,25
Aufträge in Lie	fergeb	iet PL	.Z 86						
01294	12	4	990471		1,10		66,72	49,50	17,22
Summe Plz: 🕝	1		1		1,10		66,72	49,50	17,22
Aufträge in Lie	ferget	iet PL	.Z 87						
01296	80	4	990475		0,25		36,88	26,00	10,88
Summe Plz: 1	1		1		0,25		36,88	26,00	10,88
Aufträge in Lie	fergeb	iet PL	.Z 89						
01295		4	990456		0,20		30,07	21,30	8,77
01296		4	990456		0,02		30,07	21,30	8,77
01298		4	990456		1,20		30,07	21,30	8,77
01295		4	990471		0,20		39,02	26,00	13,02
01298		4	990471		0,01		39,02	26,00	13,02
Summe Plz: - 6	5		2		1,63		168,23	115,90	52,33
Total: 16	в		11		17,70		1.106,58	323,40	783,18

Order analysis for invoice recipients

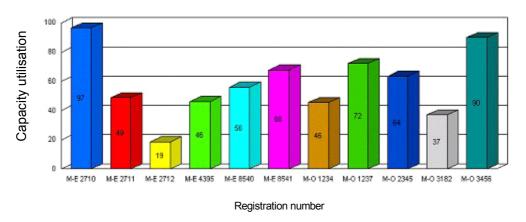
	Fahrzeugauslastung für 15.05.2002									
Kennzeichen	Anzahl Touren	Verplante Nutzlast		ge (kg) Abholungen Entfernung	Auslastung in %					
M-E 2710	1	10.200	9.854	360	97					
M-E 2711	1	10.200	4.970	58	49					
M-E 2712	1	10.200	1.904	154	19					
M-E 4395	1	10.450	4.837	111	46					
M-E 8540	1	10.150	5.703	234	56					
M-E 8541	1	10.150	6.863	169	68					
M-O 1234	1	10.000	4.553	142	46					
M-O 1237	1	10.250	7.394	183	72					
M-O 2345	1	10.200	6.487	205	64					
M-O 3182	1	10.050	3.728	391	37					
M-O 3456	1	10.400	9.363	528	90					
15.05.2002	11	112.250	65.656	2.535 km	58					
Total:	11	112.250	65.656	2.535 km	58					

Analysis per vehicle





Utilisation of vehicle capacity in % per vehicle



SUPPLEMENTARY MODULES FOR EXTENDING PRA®CAR 3000 INCLUDE:

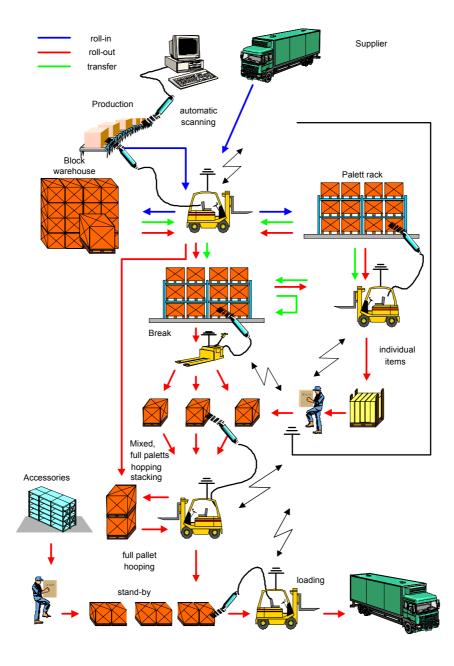
- ▲ Transhipment-warehouse scheduling
- Planning with several operation points
- ILOG optimisation module
- ▲ Immediate order invoicing
- Container administration
- Driver schedule
- and many more



WAREHOUSE LINK

PRA®MAG 3000

Control package for the automatic procedure and personnel and equipment deployment in the warehouse from goods entry to loaded on the vehicle.

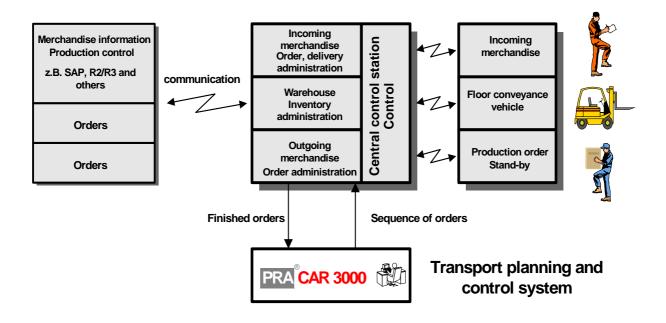


Suitable for all floor conveyors, constant conveyors, storage and retrieval units for high-bay warehouses.

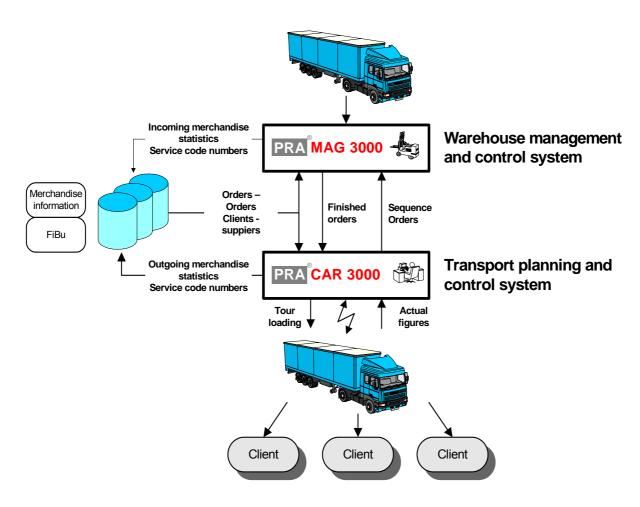
We will be glad to send you detailed information about our *PRA®MAG 3000* warehouse solution.



Inventory management and control system PRA®MAG 3000

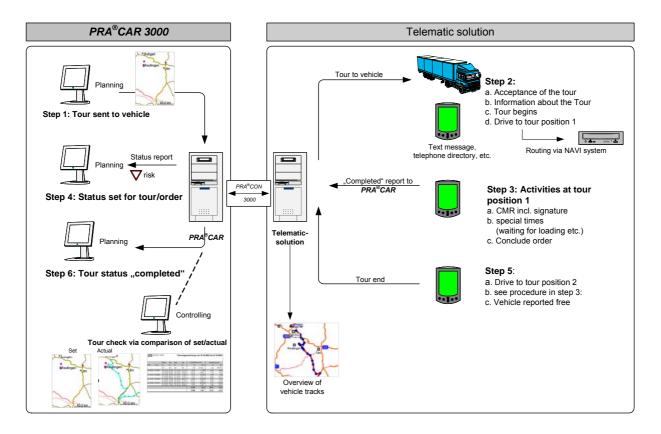


Integration into the total process





OPTIONS COMBINED WITH A TELEMATIC SOLUTION



The following are examples of the possibilities:

- ▲ Transfer tour or tour alteration on-line
- Paperless tour processing
- Current tour and order status
- ▲ Send messages
- ▲ Set-point / actual-status comparison for driver and vehicle
- Determination of working hours and expenses
- Active EMAIL notification of a jeopardized tour!
- Actual-status data acquisition (e.g. quantity change) with on-board computer
- and many more

Detailed information about our telematic solution is available upon request!