

CBASS

CEMENT BOOKING AND SCHEDULING SYSTEM



What is CBASS?

CBASS is a slot booking and scheduling system designed specifically for the cement industry. It allows accurate fleet planning and facilitates realistic delivery time commitments to be made to customers.

CBASS handles the dynamic allocation of vehicles to jobs and integrates with GPS tracking to minimize late deliveries.

Features & benefits:

- ▶ **Tight integration with selected ERP system**
- ▶ **Comprehensive business rules setup**
- ▶ **Map and road network database for accurate planning**
- ▶ **Gantt chart schedule view showing initial plan, actual completed and actual outstanding**
- ▶ **Dynamic scheduling model**
- ▶ **GPS tracking integration**
- ▶ **Text messaging**



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The cement industry is particularly sensitive to delivery times as building operations can be brought to a halt if the cement (or concrete) does not arrive when promised. This means that cement companies are faced with a difficult balancing act. They must keep their delivery promises but not at the expense of wasteful under-utilization of the fleet. To do this, a system is needed that accurately books delivery times and keeps track of how much resource has been promised at any time.

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When an order is added/changed in the ERP, a call is made to **CBASS** to book a time for the order. All available slots are shown in **CBASS**. The order entry clerk may choose a slot from the available options or try another date/loadsize in **CBASS** and then book an acceptable slot.

CBASS regularly synchronizes with the ERP to obtain orders as they are entered. The following up to date information is also downloaded:- consignee, product, load sizes, standing order, working day calendar and fleet data.

CBASS allows for the entry of business rules specific to consignees (delivery windows by day and vehicle exclusions), vehicles & load-size matching and the ability to assign reserved space to be filled by priority consignees or long-distance deliveries.

The jobs are shown in an easy-to-read Gantt chart showing the usage of each vehicle per day. From the Gantt chart, the planned loading time, traveling time and offloading time for each order can be seen. The Gantt chart can also be used for dragging and dropping jobs between vehicles and days.

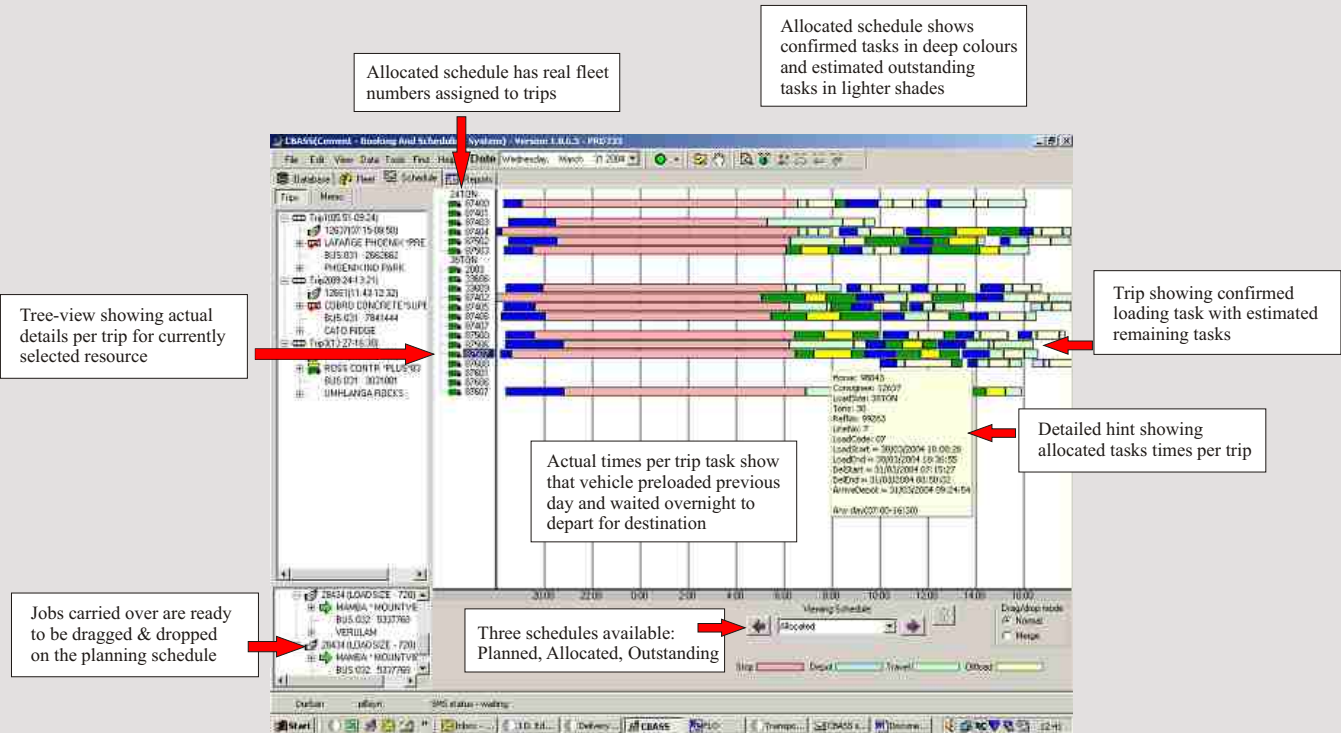
CBASS road network database provides accurate lead distances and times to each consignee. Maps are also used for calculating delivery times, viewing delivery points, GPS tracking data and planned routes.

On the delivery day, loads are allocated to vehicles from **CBASS** dynamically. **CBASS** takes into account booked offload window durations when deciding the next best load for a vehicle and sends this information to the ERP system when a vehicle returns to the depot.

Diverted and carried-over loads are initiated in the ERP system and are automatically updated in **CBASS**.

CBASS integrates with the tracking system to provide a view of the schedule progress and to analyze actuals against planned. **CBASS** also uses tracking data to fine-tune travel and offload times.

Using tracking data, **CBASS** can be asked to send text message to a consignee when the vehicle is a certain distance/time away.



Screen Shot of an Allocated Schedule

Summary of main features of CBASS:

Tight integration existing ERP

CBASS synchronizes with the ERP to obtain orders as they are entered. The following up-to-date information is also downloaded - consignee, product, load sizes, standing order, working day calendar and fleet data.

Business rules setup

CBASS allows for the entry of business rules specific to consignees (delivery windows by day and vehicle exclusions), vehicles/loadsize matching and the ability to assign reserved space to be filled by priority consignees or long distance deliveries.

Map and road network database

CBASS has an inbuilt road network database which provides accurate lead distances and times to each consignee. CBASS uses vector maps for calculating delivery times, viewing delivery points, GPS tracking data and planned routes.

Order entry module

CBASS communicates via COM with the ERP system. When an order is added/changed in the ERP, an automatic call is made to CBASS to book a time for the order and all available slots are shown in CBASS. The order entry clerk may choose a slot from the available options or try another date/loadsize in CBASS and then book an acceptable slot. Any changes made in CBASS are automatically updated in the ERP order entry.

Gantt chart schedule view

CBASS has an easy to read Gantt chart showing the usage of each vehicle per day. From the Gantt chart, the planned loading time, travelling time and offloading time for each order can be seen. The Gantt chart has drag and drop functionality to allow for manual changes to the schedule where necessary.

Dynamic scheduling model

Loads are allocated to vehicles from CBASS dynamically on their arrival back at the depot. CBASS takes into account booked offload window durations when deciding the next best load for a vehicle and sends this information to the ERP system. Diverted and carried-over loads are initiated in the ERP system and are automatically updated in CBASS.

GPS tracking integration

CBASS can integrate with many tracking systems to provide a view of the schedule progress and to analyse actuals against planned. CBASS also uses the tracking data to fine-tune travel and offload times, adding to the accuracy.

Text/SMS facility via cell-phone modem

Using tracking data, CBASS can be set up to send a text message to a consignee when the vehicle is a certain distance/time away from a consignee.