

Inventory Tracking

A Complete Solution for Finished Product Inventory Management

Inventory Tracking from Process Solutions can help cement producers to optimize finished product distribution system by providing detailed real-time views of current and historical levels of finished product inventory, supported by complete transaction records for analysis and reporting.

As an extension of Process Solutions' proven **Cement Distribution Management** software suite, the *Inventory Tracking* module also provides for seamless recording of every type of inventory transaction: transfers into finished product; inventory from the finish mill, or foreign product acquisitions to bag production; internal transfers and manual adjustments for spillage or spoiled product; and outbound sales shipments.

In addition to current data, the *Inventory Tracking* module provides access to historical data and trends for every product and storage location in the distribution system, including storage in permanent structures, like silos and warehouses, and in vehicular locations, such as trailers, rail cars and barges.

Viewing Inventory Data

The main screen of the *Inventory Tracking* module provides a view of the inventory level for every product in every storage location across the system.

Bulk product inventory may be tracked to the individual silo level, while bag or prepackaged inventory may be tracked at the warehouse level or at any more specific level designated by the user.

The **Current Inventory** view may be filtered to show individual storage locations, groups of locations or the entire system, and may be organized by product or by storage location. Selection of filters is entirely up to the user, but the system 'remembers' and returns the view last selected by each individual user.

While the default view is for the current time and date, by selecting any earlier time and date to a 15 minute level, the user may view historical levels from the same screen.

Viewing Transaction Data

To analyze and respond to viewed inventory levels at any location, it is essential to be able to identify the transactions which have taken place and to manage upcoming transactions. A **Recent Transactions** view of every individual storage location is easily accessible. Details of each transaction may be viewed by selecting the transaction from the list view and double-clicking or selecting the 'Details' button.

A Vehicular Location Details view provides access to records for inventory currently in a vehicle (trailer, rail car, barge or ship), and for which an immediate or short-term deployment decision may therefore be possible. Vehicular locations associated with each site (plant or distribution terminal) include:

- Incoming stock transfers
- Incoming purchased product
- Outbound sales deliveries
- Unassigned preloads

The current location of every individual vehicle may be tracked and recorded in the system, either manually or through linking to a GPS tracking system.

Shipment Type	B/L Number	Quantity	Product	Delivery Date	Vehicular Identifier
Stock Transfer	01-000070	5.00	Hercules Type 1 Bulk	Jan-20-2003 3:30 PM	73
Preload	-1	500.00	Spalta White Montage B.		53223
Stock Transfer	01-000079	150.00	Hercules Type 1 Light B.	Jan-20-2003 6:15 PM	34
Stock Transfer	01-000079	20.00	Hercules Type 1 Light B.	Jan-20-2003 6:15 PM	34
Stock Transfer	01-000079	20.00	Hercules Type 1 Light B.	Jan-20-2003 6:15 PM	34
Preload	-1	295.00	Spalta White Montage B.		2373
Stock Transfer	01-000086	34.00	Hercules Type 1 Bag	Jan-20-2003 7:00 PM	g5
Stock Transfer	01-000086	234.00	Hercules Type V Bag	Jan-20-2003 7:00 PM	g5
Stock Transfer	01-000086	262.00	Hercules Type 1 Light B.	Jan-20-2003 7:00 PM	g5

Vehicular Location Details Screen

Reporting & Silo Measurement

While a wide range of custom reports may be derived from the Inventory Tracking database, the module has been designed to include standard reports summarizing Inventory Balance over any specified period of time for any individual storage location or aggregation of locations. The Balance report shows:

- ↔ Starting Balance
- ↔ Inbound Transaction
- ↔ Outbound Transactions
- ↔ Adjustments
- ↔ Ending Balance

The module also provides a simple but sophisticated capability for entry of silo measurements with automation of the calculation of silo inventory based on the measurements. Each silo measurement may either simply be recorded as a tracking measure for comparison with book inventory levels, or it may be used to make an adjustment, or to measure an inbound transaction.

Inventory Balance Screen View

Receiving Transactions

Inventory being received into a storage location may be:

- ↔ Received from production (finish mill)
- ↔ Received through transfer from a local storage location to a shipping silo
- ↔ Received through transfer from a bulk silo into bagging, and thence to a bag warehouse
- ↔ Received as a vehicular transfer shipment from a production facility to a remote distribution facility
- ↔ Purchased from another producer, domestic or offshore

The Inventory Tracking module provides simple, intuitive interfaces for carrying out any of these types of receipts. In each case, the source of the receipt, the type of material and the destination storage location are identified from drop-down menu options. Product incompatibility is flagged, but the user has the opportunity to receive, for example, a Type I material from one plant and combine it with a Type I material from another.

Adjustment Transactions

Recognizing that there are inherent inaccuracies in many of the methods of measuring bulk material, and that there is inevitably some loss or shrinkage of inventory due to spillage and contamination, the Inventory Tracking module allows for adjustments to be made by managers.

The first type of adjustment is based on silo measurement. When receiving a shipment of bulk material, the operator may either receive the amount of the shipment as measured at the point of loading, OR may use before and after silo measurement to determine the amount. This method may be particularly applicable when receiving waterborne shipments from a barge or ship. Any difference between the measurements is recorded as an adjustment, and requires an explanation.

The second type of adjustment may be used at any time to adjust the inventory level in a storage location. This adjustment may reflect known loss (such as contaminated bags or the bottom of a silo which is being cleaned out to receive a different material type), or it may simply be based on a scheduled silo measurement.

Silo Measurement Screen

For More Information

Luis Ramirez
 Manager, Cement Distribution Solutions
 Telephone: (780) 452-2227 ext. 5272
 E-mail: luis.ramirez@pscl.com
 Visit our web site at www.psc.com