

# ePack/PHM – Packinghouse Management

## Management Software for Agriculture Produce Packing Facilities

### Objectives

The PHM Packinghouse Management System for the agriculture business sector introduces a flexible, state of the art software solution, integrated into the on-going packing-house business flow and provides a rich set of management, monitoring and control tools for the manufacturing, packing, marketing and financial processes in the agriculture facility.



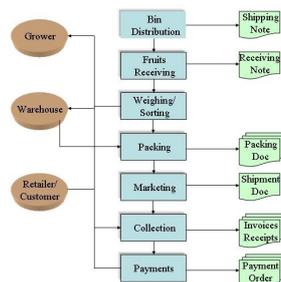
### Business Process

The business process, into which the ePack software is integrated, commences at the bin distribution phase and comes to an end on pay day to the growers for their fruits harvest delivery.

Data is collected in real time using various input

devices giving an accurate status reporting on the facility tasks executions and performance.

Business Process Workflow



### The Product

The ePack software provides control and monitoring tools for all business processes.

The mode of operation of the software is based on on-line procedures accompanying the business processes while all data entities in the system are created or modified in real time.

As a consequence to the above, all data instances created in the system are available to the entire users' community at the moment

of instantiation, eliminating the need for a complex and time-consuming batch processes the way classical, legacy data processing systems usually handle their input data.

### Inventory Subsystem

The sub-system provides tools for tracking stock levels and stock transactions at the shop floor in a multi-plant and a multi-packinghouse environment.

The subsystem consists of the following modules:

The Bin Management module manages stock and availability data of empty bins at the packinghouse as well as bins at the growers' locations.

The Fruits Management module manages the fruits receiving process, weighing, sorting, storing at cooling storage and moving to the production packing shop floor.

The system can also handle fruits destined to be shipped

# ePack/PHM – Packinghouse Management

## Management Software for Agriculture Produce Packing Facilities

domestic or exported to overseas markets and also deals with fruits of a lesser quality shipped unpacked.

### **Packing Subsystem**

Manages all production phases starting from receiving the fruits until its palletizing process is complete and is ready to be shipped.

The subsystem consists of the following modules:

The packing module manages the packing process. The incoming fruits are weighted and sorted. Weight information may be input directly from the scales into the database.

The pallets module manages the process of pallet setup promptly and efficiently. The packinghouse floor operator is advised which incoming fruit shipments to build the pallet from using a sophisticated filtering algorithm eliminating all irrelevant combinations.

### **Marketing Subsystem**

Manages the marketing processes and selling of the products.

The Shipments Module manages fruits shipment to domestic and overseas destinations utilizing various means of transportation such as marine, airborne or terrestrial carriers.



The orders Management module enables customer orders entry into the database. The module manages various customers' types including end-customer/retailer and warehouse/distributor.

### **Collection Subsystem**

The Collection subsystem manages the collection process.

Using this subsystem, the accounting department can

trace the selling process on a pallet or carton level.

The subsystem consists of the following modules:

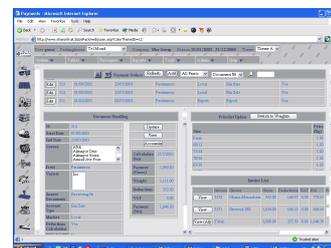
The invoices module manages invoice creation and maintenance.

The credit notes module manages credits done for various events such as price reduction, goods returns, and good write-offs enabling reallocation of returned goods.

The receipts module produces receipts per payments.

### **Payments Subsystem**

The Payments module manages the payments to growers and suppliers and produces payment orders for each grower.



### **Reports Subsystem**

The reports subsystem consists of the following modules:

# ePack/PHM – Packinghouse Management

## Management Software for Agriculture Produce Packing Facilities

---

An on-line query module is built into the system providing the users with up-to-date information on the system processes and data.

Data is retrieved and displayed using a rich set of sort keys and filters.

The Reports module provides a rich repertoire of user reports, summary reports and management reports using text and graphical charts.

The end user can define his or hers private set of reports and save the set for future re-use.

A report generator is also available extending the user options in defining new sets of customized reports. For example, the user can design custom shipping list documents depending on the specific customer need and requirements. Also, the user may determine the exact format of accounting documents (invoices etc.)

### **Infrastructure**

The Tables module manages all reference tables in the database. This includes fruits / varieties / size information, retailers and suppliers, inventory and manufacturing master data and a large number of metadata information.

User access to the information system database is performed by, actually surfing the intranet/internet defined in the core system. This feature makes the systems flexible and scalable in a way that various configurations can be created using a number of servers depending on the customer data volumes and anticipated growth.



The Event Log module records every event generated in the systems providing comprehensive tracking capabilities. Each

transaction occurring in the systems is traceable, so that the systems manager knows exactly all details of a specific transaction including date/time, owner and more information associated with the specific transaction.

### **Hardware Interfaces**

The core system provisions hookup of various external devices and providing hooks for connecting to those devices for data acquisitions from them.

This includes devices such as:

- Electronic Scales
- Sorter
- Bar-code readers
- Mobile terminals

These types of devices will be integrated into the system per customer's specific requirements and will be hooked up during systems implementation at customer's site.

# ePack/PHM – Packinghouse Management

## Management Software for Agriculture Produce Packing Facilities

### Software Interfaces

The systems can connect to external software modules in the organization for data transferring or receiving.

Also, the systems supports import/export mechanisms to and from database tables. Supporting the Microsoft OLE standard enables systems users to transfer data to Microsoft Office tools such as WORD and EXCEL for further processing of the data created in the system.

### Technology

The ePack package was developed using a state of the art and leading edge web-based software. Using this type of software was a design objective for the ePack developers. This



makes the systems flexible and scalable in the sense it can be implemented on a hardware configuration which fits the customer needs with no configuration limitations.

The development tool set consists of the Microsoft Development Environment with DHTML/ASP as the main development language.

The ePack package runs on an advanced database management systems the MS SQL-Server from Microsoft Corporation.

The database interface is based on ODBC which enables it to connect to any ODBC compliant database on the market (Oracle, Informix etc.)

### User Interface

The User Interface is an intuitive and friendly graphical shell designed in a standard Microsoft Windows user interface design rules.

The UI learning curve is relatively short improving the user's efficiency and productivity.

Designed in an object oriented (OO) approach, the graphical interface presented is intuitive, consistent and simple.

A major design goal is to enable both mouse and keyboard data entry procedures. By this, users that are not used to modern pointing devices may use the keyboard with a comparable efficiency.



### Multilingual Interface

The system is designed to support a multilingual user interface. Thus, a user can

# ePack/PHM – Packinghouse Management

## Management Software for Agriculture Produce Packing Facilities

---

choose his or hers language operating environment.

A company with business contact overseas can utilize a bilingual operations model where data is created using a certain language and viewed elsewhere in the world using a different language.



### **Contact Us**

Email us to:

[info@e-pack.co.il](mailto:info@e-pack.co.il)

Or visit our website at:

[www.e-pack.co.il](http://www.e-pack.co.il)

### **Operational Layer**

The Operational Layer consists of 3 domains: operations, administration and management.

System operations task is a fully-automatic process and is initiated at the system startup phase. The system's administrator is responsible for users' administrations tasks mainly. Backups are executed automatically and periodically.

### **Customer Support**

Customer support is available 24 hours a-day via our website.

Registered customers may access the site anytime to download software, bug fixes and patches.

## **Packinghouse Management Software**

### **Features and Benefits**

Fruits receiving process optimization

Efficient documents creation in process (Packing lists, pallet certificates and shipping certificates)

Support of a multiple packinghouse environment

Bins inventory management

Flexible measurement units support (where applicable)

Provisioning for external devices connectivity (Scales, Barcode devices and programmable controllers)

Integration with Microsoft Corporation's MS/Office environment.

A rich portfolio of operational, summary and management reports.

A sophisticated security system

A customized user environment

A customizable packinghouse support system

A scalable solution implemented in an internet/intranet environment,