

# E-Ship

Navision E-Ship integrates the entire packing and shipping function within the Navision database. Until now Navision customers have interfaced with external shipping systems. These external systems, while doing a good job of rating and shipping packages, do not have knowledge of the items being shipped. Because E-Ship is held within Navision it can easily:

- **Shop rates at Sales Order entry time** thus allowing you to quote the shipping cost up front.
- **Capture package level detail** using our unique **Scan-Only packing** operation.
- Interface with **Scales** to weigh packages.
- Use **Barcode printers** to print shipping labels.
- Automatically **calculate the cost and price of the container** for COD and Insurance purposes.
- **Compare** the expected **contents weight** with the **actual weight** of the package thus preventing packing errors.
- **Update the sales order** with the appropriate **freight charges**.
- Use either **G/L Accounts or Resources** to post **freight charges** to a Sales Order.
- **Track the cost of shipping** by Shipping Agent and Service versus the amount charged to the customer.
- **Track Packages** and obtain delivery information from within Navision via the Internet.

## E-Ship integrates with:

- Navision Financials
- Navision Advanced Distribution
- Navision Manufacturing
- Navision Attain V3.01

## E-Ship is made up of the following 11 Granules:

### Packing

#### Pack Line Scanning

Pack Line Scanning captures package level detail using a Symbol barcode scanner attached to a PC keyboard. This unique packing operation allows the user to perform the following functions while using only the scanner:

- Select a sales order by scanning the sales order number from pick ticket or a printed copy of the sales order.
- Open a package by scanning the first item to be packed.
- Pack additional items in the package by scanning each item as it is placed in the package.
- Optionally capture outgoing serial numbers during the scanning and packing process.
- Close the package by scanning a close package command.
- Weigh the package via the scale Interface.
- Print a carrier approved shipping label using a barcode printer.
- Pack additional packages for the sales order.
- Update freight charges to the sales order as each package is closed.
- Close the sales order by scanning a close order command. Depending on system setup the close order command can close the order, post a shipment, or post a shipment and invoice.

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This, scan only approach, dramatically increases the accuracy of packing as well as reducing the amount of labor required.

It is also important to note that Pack Line Scanning can also be used to ship without capturing package level detail using the following procedure:

- Scan the sales order number on the pick document or printed copy of the sales order.
- Pack the package without scanning the items.
- Scan the close container command, which retrieves the weight from the scale.
- Freight charges, shipping labels, and manifest transactions are created as usual even though the package level detail is not captured.

Pack Line Scanning can also be used to ship and capture pack level detail required by the retail industry. Many times these shipments are made via LTL or Contract carriers. In this case E-Ship works together with EDI and the Bill of Lading granule to create Advanced Shipment Notices (856) for the retail industry.

## **Standard Pack**

Standard Pack provides an ability to easily pack many standard packages such as cases without scanning and weighing each package. This feature is often used to comply with retail chain package labeling and detail requirements.

## **Fast Pack**

Fast Pack provides an alternative to the scanning interface but the Pack Line Scanning granule is required because it uses the same package detail transactions.

## **Scales Interface**

E-Ship interfaces with various scales using an OCX control. This control can be easily configured to support most scales by entering communications port, baud rate, scale commands and the definition of the returned data in the scale setup window.

## **UPS Manifest**

The UPS Manifest granule utilizes the Host Manifest Upload interface to provide the following functions:

- Rates Shipment by Package (Domestic & International)
- Supports Hundred Weight
- Prints UPS shipping labels
- Creates Electronic Manifest transaction
- Prints Manifest and Pick Up Label
- Uploads UPS Electronic Manifest via Host Manifest Upload.

## **FedEx / FedEx Ground (FedEx Ground formerly RPS)**

The FedEx Manifest granule provides the following functions:

- Rates Shipment by Package (Domestic & International)

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- Supports FedEx and FedEx Ground
- Sends Electronic Manifest transaction via Internet to FedEx
- Receives rated transaction
- Prints FedEx compliant labels
- Prints Manifest
- Uploads Electronic Manifest

## LTL (Less Than Truck Load)

The LTL manifest granule provides the following functions:

- Provides a planning function allowing multiple sales orders to be combined for shipment using the Bill of Lading granule.
- Allows Rating and Quoting at both the sales order and shipment level.
- Records shipping quote at the Bill of Lading level as well as allocating charges back to the sales order.
- Integrates with the Freight Bill Reconciliation granule.
- Allows the manual entry or import of freight rates. (LTL freight rates can be obtained from a 3<sup>rd</sup> party service.)

## Bill of Lading

The Bill of Lading granule provides the following functions:

- Shipment planning allows the consolidation of multiple sales orders into a single shipment.
- The BOL provides a basis for the LTL freight-quoting feature.
- The BOL provides a summary view of the entire shipment including packages and pallets if E-Ship packing is used.
- Provides the basis for an EDI Advanced Shipment Notice with package level detail.
- Prints various shipment summary reports.
- Prints a Bill of Lading

## Label Formatter

The Label Formatter granule provides the ability to define customer specific UCC barcode labels.

- Supports both Eltron and Zebra printers.
- Mapping utility provides label printing without programming.
- Supports all common barcodes.
- Assigns label format to a customer or group of customers.
- Prints label from Fast Pack, Standard Pack, and Pack Line Scanning information.
- Prints label at package close or in a group after entire shipment is packed.
- Supports UCC128 and SCC14 labels required by Retail Chains.

## E-Mail Formatter

The E-Mail Formatter granule provides the ability to map E-Mail formats and integrate them with Sales documents.

- Supports Sales Order Confirmation, Shipment Notification, Statements, Invoices, and Bill of Lading.

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- Shipment Notification integrates package level detail and package tracking numbers.
- Can easily be modified to support other Navision transactions and documents.

## Rate Shopping

E-Ship allows rate shopping at Sales Order Entry time so the customer can quote the total price to the customer.

- Rates the shipment
- Totals the order and shipment charge to allow quoting of the delivered price.
- Allows the quoting of a freight amount. If quoted, the price of the freight charge on the sales order remains the same at shipment time while the cost is updated with the actual charge.

## Freight Invoice Reconciliation

The Freight Reconciliation granule, similar to bank reconciliation, provides the ability to reconcile the shipping charges created during shipping with the freight vendor invoice.

## Input Conversion

Input Conversion allows for the reformatting of scanned data such as UPC, Item, and Serial Number. For example, many manufacturers add prefixes and suffixes to their serial number and item number barcodes. The Input Conversion granule provides a means of removing these prefixes and suffixes to get to the data needed.

Input Conversion can also be used to define the barcodes and assign them to items.

## System Requirements:

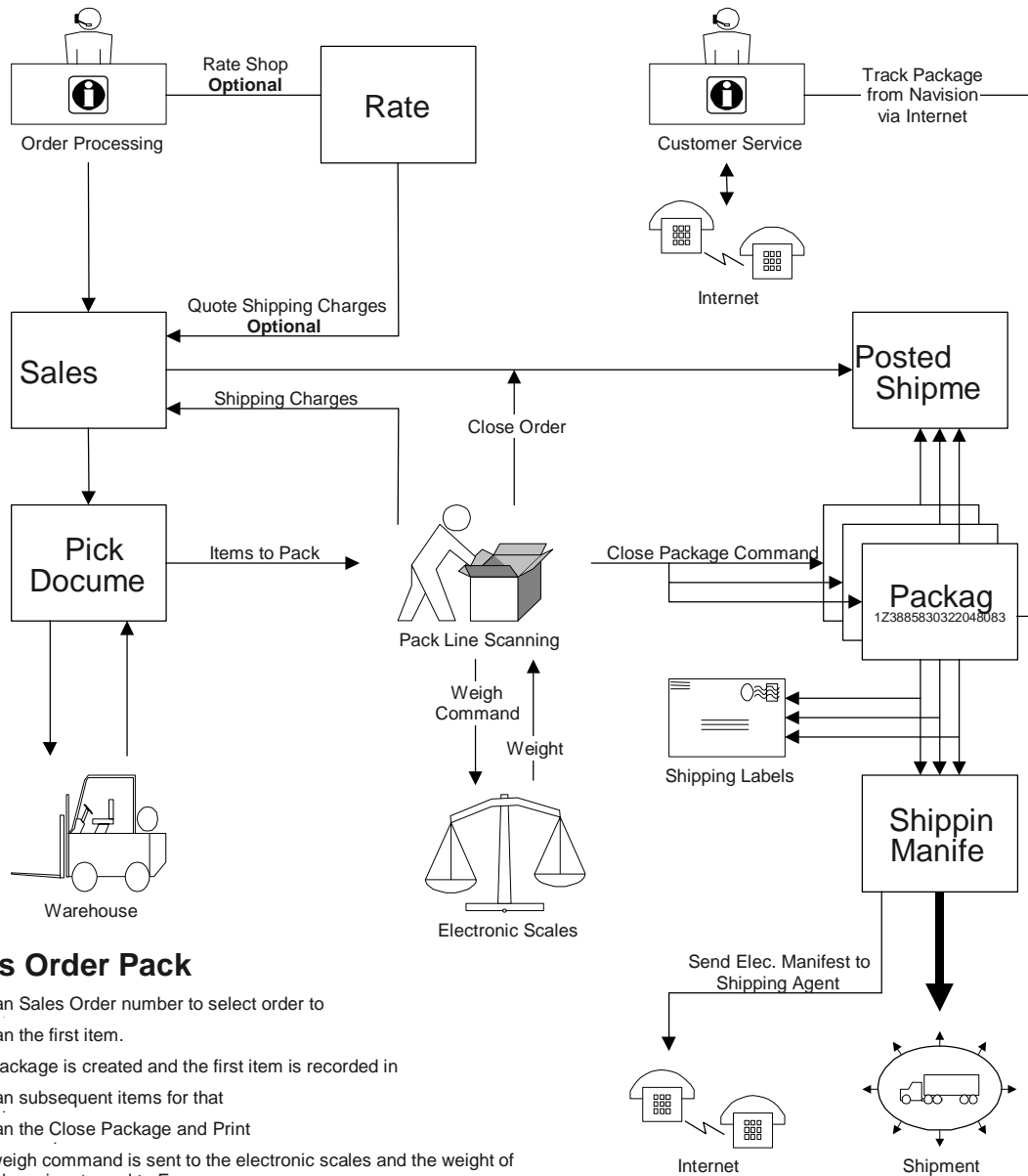
E-Ship uses OCX controls to interface with the FedEx API, and communicate with scales, therefore if these granules are used the customer must also license Navision OCX support.

E-Ship supports the following hardware:

- Symbol model 4000 keyboard connected scanner or equivalent.
- Most scales using RS232 connection to PC communications port.
- Eltron dedicated barcode printers via ELP2 language.
- Zebra dedicated barcode printers via ZPL2 language. (Not supported by FedEx API.)
- Navision OCX is required to support the Scales Interface and FedEx API granules.
- E-Ship requires a Navision client running windows 98, 2000, or NT Client on system with one serial communications port for scale interface.
- Internet connection is required to upload manifest, and integrate with the FedEx API.

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## Transaction Flow:



### Sales Order Pack

- ❖ Scan Sales Order number to select order to
- ❖ Scan the first item.
- ❖ A package is created and the first item is recorded in
- ❖ Scan subsequent items for that
- ❖ Scan the Close Package and Print
- ❖ A weigh command is sent to the electronic scales and the weight of package is returned to E-
- ❖ The package is rated based on the shipping agent, shipping agent from zip code, to zip code and
- ❖ A shipping label is printed for the package and the shipping charge is to the sales order.
- ❖ Subsequent packages are created, closed, and labels are
- ❖ When the sales order is packed, the user scans the close order Depending on E-Ship setup, the order is shipped or shipped and
- ❖ Tracking numbers and package contents are attached to the posted document.

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## Overview:

The following demonstration scripts show several of the main features of E-Ship.

### Packing and Shipping a Sales order via UPS

The following figure shows a sales order which E-Ship will pack and ship.

T...	No.	Description	R...	Quantity	Reserved ...	Unit of Me...	Unit Price	Tax Group
I...	70000	Side Panel	O...	2		PCS	47.30	MATERIA
I...	70001	Base	O...	2		PCS	62.10	MATERIA
I...	70002	Top Panel	O...	2		PCS	44.30	MATERIA

*There are 3 items with a quantity of 2 PCS for each item.*

A new tab “E-Ship” has been added to the Sales Order form to allow the order entry person to specify various shipping controls. Many of these fields are also populated from the customer card.

T...	No.	Description	R...	Quantity	Reserved ...	Unit of Me...	Unit Price	Tax Group
I...	70000	Side Panel	O...	2		PCS	47.30	MATERIA
I...	70001	Base	O...	2		PCS	62.10	MATERIA
I...	70002	Top Panel	O...	2		PCS	44.30	MATERIA

*Notice that the sales order is set to ship via UPS Ground. E-Ship uses the Shipping Agent Code to signify shipping agents such as UPS or FedEx. The Shipping Agent Service specifies the type of service such as Ground or, Next Day Air.*

The following Sales Order Pack window is used to pack and ship sales orders. This Sales Order Pack window has been specially designed to allow the shipper to use a scanner to control the entire pack and ship process. It is important to note that the scanning device is typically a Symbol scanner that is attached between the keyboard and computer of the shipping system. The shipper can also manually enter sales order numbers, item numbers, and commands.

# E-Ship

**Sales Order Pack**

Ship-To Address

Pallet No. . . . .   
 Package No. . . . .   
 No. / Total. . . . .  OF

**Order . . .**   
**Package . .**

Type "//HELP" so see all options

**Shipping Agent . .**   
**Ship. Agent Serv. .**   
**Calculation Wgt. .**  **0.00**  
**Net Weight . . . .**  **0.00**  
**Shipping Charge .**  **0.00**  
**Order Qty. Packed**  **0** OF  **0**  
**Line Qty. Packed .**  **0** OF  **0**

Notice that many of the field names are larger than normal. This is to allow the shipper to keep track of the packing process from a distance. In many cases the system used to pack is placed behind the packing line to allow the shipper to more easily handle the packing process.

The shipper scans the sales order number from either the pick document or a printed copy of the sales order.

**Sales Order Pack**

Ship-To Address  
 1015  
 The Cannon Group PLC  
 192 Market Square  
 Atlanta,GA 30117-6611

Pallet No. . . . .   
 Package No. . . . .   
 No. / Total. . . . .  OF

**Order . . .** **Open**  
**Package . .** **Closed**

**Shipping Agent . .**   
**Ship. Agent Serv. .**   
**Calculation Wgt. .**  **0.00**  
**Net Weight . . . .**  **0.00**  
**Shipping Charge .**  **0.00**  
**Order Qty. Packed**  **0** OF  **6**  
**Line Qty. Packed .**  **0** OF  **0**

Order: Open Package: Closed

After scanning or entering the sales order number the window displays the ship-to address from the sales order and shows that the total aggregate quantity to ship is 6 and none have been packed. Also notice that the Order is Open and the Package is closed because no items have been scanned yet.

The shipper scans item 70000, the first item to be packed.

**Sales Order Pack**

Ship-To Address  
 1015  
 The Cannon Group PLC  
 192 Market Square  
 Atlanta,GA 30117-6611

Pallet No. . . . .   
 Package No. . . . . P000169  
 No. / Total. . . . . 1 OF 1

**Order . . .** **Open**  
**Package . .** **Open**

**Shipping Agent . .** **UPS**  
**Ship. Agent Serv. .** **GROUND**  
**Calculation Wgt. .**  **0.00**  
**Net Weight . . . .**  **2.30**  
**Shipping Charge .**  **0.00**  
**Order Qty. Packed**  **1** OF  **6**  
**70000**  
**Line Qty. Packed .**  **1** OF  **2**

Order: Open Package: Open

After scanning the first item, the Sales Order Pack window creates a package number P000169 and records item 70000 in the package. Notice the net weight of the package is now estimated at 2.30 lbs. This weight is retrieved from the sales line and may not be the actual weight retrieved from the scale when the package is closed and weighed. One of six items on the order has been packed and 1 of 2 items on the order line has been packed.

# E-Ship

The shipper scans a second item 70000. E-Ship can also be configured to prompt for the packed quantity after scanning the first item.

Ship-To Address 1015 The Cannon Group PLC 192 Market Square Atlanta,GA 30117-6611	Shipping Agent . . <b>UPS</b>
Pallet No. . . . .	Ship. Agent Serv.. <b>GROUND</b>
Package No. . . . . P000169	Calculation Wgt. . <b>0.00</b>
No. / Total. . . . . 1 OF 1	Net Weight . . . . <b>4.60</b>
Order . . . . <b>Open</b>	Shipping Charge . <b>0.00</b>
Package . . <b>Open</b>	Order Qty. Packed <b>2</b> OF <b>6</b>
70000	70000
Order: Open Package: Open	Line Qty. Packed . <b>2</b> OF <b>2</b>

*Both of item 70000 has now been packed and the expected net weight is 4.60 lbs.*

The shipper scans the Close Package and Print command to signify that only the 2 item 70000s are to be shipped in this package.

Ship-To Address 1015 The Cannon Group PLC 192 Market Square Atlanta,GA 30117-6611	Shipping Agent . . <b>UPS</b>
Pallet No. . . . .	Ship. Agent Serv.. <b>GROUND</b>
Package No. . . . . P000169	Calculation Wgt. . <b>5.00</b>
No. / Total. . . . . 1 OF 1	Net Weight . . . . <b>4.60</b>
Order . . . . <b>Open</b>	Shipping Charge . <b>3.57</b>
Package . . <b>Open</b>	Order Qty. Packed <b>2</b> OF <b>6</b>
//CPP	70000
Order: Open Package: Open	Line Qty. Packed . <b>2</b> OF <b>2</b>

*Upon scanning the Close Container and Print command, E-Ship sends a weigh command to the electronic scales and receives an actual weight of 5.00 lbs. A shipping charge of \$3.57 is calculated based on the weight and ship-to zip code and a UPS Ground shipping label is printed on the barcode printer attached to this packing station.*

The shipper scans 2 item 70001 and 2 item 70002 to pack those 4 items in the same package.

# E-Ship

Sales Order Pack	
Ship-To Address 1015 The Cannon Group PLC 192 Market Square Atlanta,GA 30117-6611	<b>Shipping Agent . .</b> UPS <b>Ship. Agent Serv..</b> GROUND <b>Calculation Wgt. .</b> 0.00 <b>Net Weight . . . .</b> 10.60 <b>Shipping Charge .</b> 0.00 <b>Order Qty. Packed</b> 6 OF 6 <b>70002</b> <b>Line Qty. Packed .</b> 2 OF 2
Pallet No. . . . . Package No. . . . . P000170 No. / Total. . . . . 1 OF 1 <b>Order . . . .</b> Open <b>Package . .</b> Open 70002 Order: Open Package: Open	

*The Sales Order Pack window shows all items (the total quantity to ship) on the order have been packed. The anticipated weight for this package is 10.6 lbs.*

The shipper then scans the Close Package and Print command to signify that this package is complete and ready to ship.

Sales Order Pack	
Ship-To Address 1015 The Cannon Group PLC 192 Market Square Atlanta,GA 30117-6611	<b>Shipping Agent . .</b> UPS <b>Ship. Agent Serv..</b> GROUND <b>Calculation Wgt. .</b> 11.00 <b>Net Weight . . . .</b> 10.60 <b>Shipping Charge .</b> 4.43 <b>Order Qty. Packed</b> 6 OF 6 <b>70002</b> <b>Line Qty. Packed .</b> 2 OF 2
Pallet No. . . . . Package No. . . . . P000170 No. / Total. . . . . 1 OF 1 <b>Order . . . .</b> Open <b>Package . .</b> Open 70002 Order: Open Package: Open	

*The electronic scale returned 11 lbs as the weight and E-Ship calculated \$4.43 as the shipping charge.*

The shipper scans the Close Order command to signify that he is finished packing all the items for this order.

# E-Ship

**Sales Order Pack**

Ship-To Address

**Shipping Agent . . . . .**

**Ship. Agent Serv. . . . .**

**Calculation Wgt. . . . . 0.00**

**Net Weight . . . . . 0.00**

**Shipping Charge . . . . . 0.00**

Pallet No. . . . .

Package No. . . . .

No. / Total. . . . . OF

**Order . . . . . Closed**

**Package . . . . . Closed**

//cc

**Order Qty. Packed 0 OF 0**

**Line Qty. Packed . 0 OF 0**

Order: Closed Package: Closed

*When the Close Order command is scanned E-Ship posts the shipment and prints a packing list. E-Ship can be configured to do nothing, ship, or ship and invoice when the Close Order command is scanned.*

*Notice that the Sales Order Pack window is cleared and now ready to pack and ship the next order.*

**1015 The Cannon Group PLC - Sales Order**

General | Invoicing | Shipping | E-Ship

No. . . . . 1015 . . . . . Posting Date . . . . . 06/29/01

Sell-to Customer No. . . . . 10000 . . . . . Order Date . . . . . 06/29/01

Sell-to Customer Name . . . . . The Cannon Group PLC . . . . . Document Date . . . . . 06/29/01

Sell-to Address . . . . . 192 Market Square . . . . . Salesperson Code . . . . . PS

Sell-to Address 2 . . . . .

Sell-to City . . . . . Atlanta

Sell-to State / ZIP Code . . . . . GA 30117-6611 . . . . .

Sell-to Contact . . . . . Mr. Jeremy Brown

No.	Description	R...	Quantity	Reserved ...	Unit of Me...	Unit Price	Tax Group...
70001	Base	O...	2		PCS	62.10	MATERIALS
70002	Top Panel	O...	2		PCS	44.30	MATERIALS
UPS	UPS Freight	N...	1			8.00	

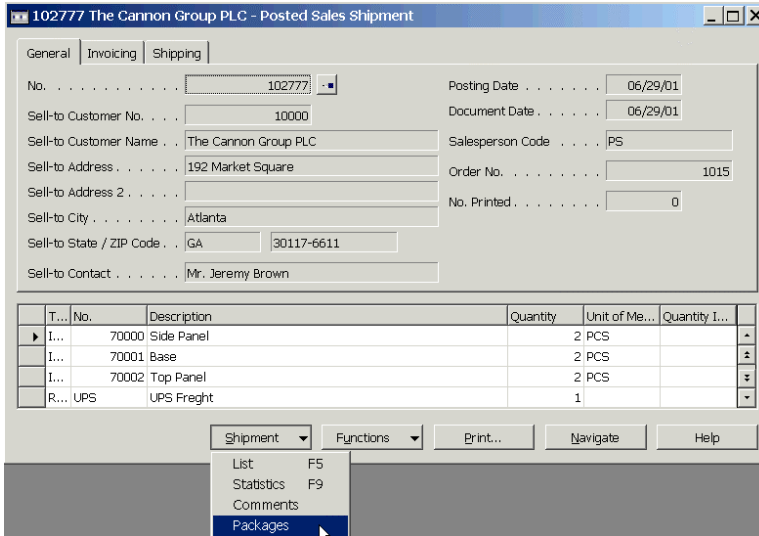
Order | Line | Functions | Posting | Print... | Help

*After the sales order is shipped the total shipping charges of \$3.57 and \$4.43 are posted to the sales order for a total of \$8.00. If the sales order had been flagged for free freight two lines would have been added for a debit of \$8.00 and a credit of \$8.00, showing the customer the amount of free freight he received.*

# E-Ship

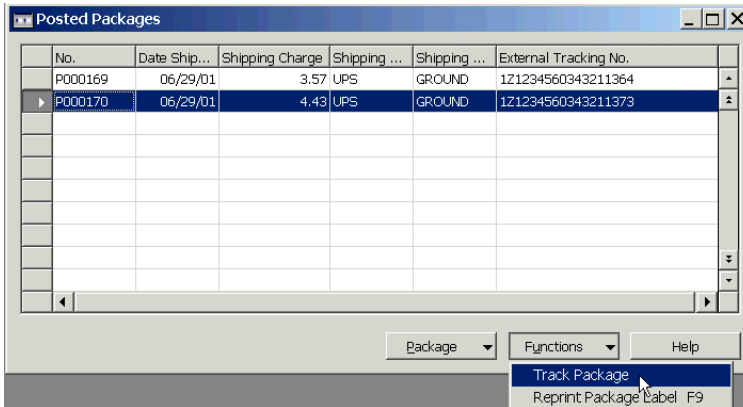
## Tracking and Viewing a Package from a Posted Shipment:

After a shipment has been posted you can view the shipment and packages associated with it from the Posted Sales Shipment window. This window can be found on the Sales and Receivables menu by selecting Posted Shipments.



*From a Posted Sales Shipment, you can view the packages associated with it by selecting Shipment and Packages.*

To track a package, highlight the line and select Functions and Track Package.



*The Posted Packages window lists the packages that were packed and shipped with this posted shipment.*

*Notice the UPS tracking numbers.*

You can view a package and its contents by selecting the package line and then Package and Card.



# E-Ship

## Quoting Shipping Charges:

It is possible to quote shipping charges from a sales order. When shipping charges are quoted the price of the quote is not changed at shipping time. However, the cost of the shipping charges could change because of the weight of packing materials. You can later check the validity of the quote by comparing the price versus cost of the quoted charges.

To quote charges select Functions and Rate Shop.

T...	No.	Description	R...	Quantity	Reserved ...	Unit of Me...	Unit Price	Tax Group
▶	1...	70000 Side Panel	O...	2		PCS	47.30	MATERIA

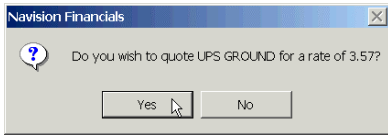
*Note: The validity of rate shopping can be compromised if incorrect item weights are contained in the system.*

To quote a rate, select the Shipping Agent Service and click the Quote Rate button on the Rate Shop Card.

Shipping ...	Shipping Agent Service	H...	Shipping Amount	Total Amount	Service Error Message
▶	UPS	GROUND	3.57	103.85	
	UPS	NEXT DAY AIR	18.98	119.26	
	UPS	2ND DAY AIR	8.51	108.79	
	UPS	3 DAY SELECT	5.87	106.15	

Click Yes to store the quotation on the sales order.

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When the Quote Rate button is clicked the user is presented with a question.

1016 The Cannon Group PLC - Sales Order

General | Invoicing | Shipping | E-Ship

No. . . . . 1016 Posting Date . . . . . 06/29/01

Sell-to Customer No. . . . . 10000 Order Date . . . . . 06/29/01

Sell-to Customer Name . . . . . The Cannon Group PLC Document Date . . . . . 06/29/01

Sell-to Address . . . . . 192 Market Square Salesperson Code . . . . . PS

Sell-to Address 2 . . . . .

Sell-to City . . . . . Atlanta

Sell-to State / ZIP Code . . . . . GA 30117-6611

Sell-to Contact . . . . . Mr. Jeremy Brown

T...	No.	Description	R...	Quantity	Reserved ...	Unit of Me...	Unit Price	Tax Group
▶ 1...	70000	Side Panel	O...	2		PCS	47.30	MATERIA
R...	UPS	UPS Freight	N...	1			3.57	

Order Line Functions Posting Print... Help

Notice that the quoted rate is added as a sales line on the sales order.

Note: The price of the shipping charge is not changed at shipping time but the price is updated based on the actual charges. Quotes and charges could vary due to a difference in estimated versus actual weights.