

### **About this presentation**

- What's New highlights, Frontier versions 4.0.x and 4.1.0.
  - Frontier 4.0.0 is the baseline
- Does not include financials
  - A financials-focused presentation is scheduled for Thursday 28 May
- Unless otherwise noted, everything here is
   Ul only (no green screen)
- We'll tag the release the feature was introduced or will be available:
  - 4.1.0 GA: 3Q 2020, subject to co-development timelines in COVID-19 business environment







# Name and Address Field size expansion

- Why?
  - Comply with industry standards for field lengths
  - Support address validation

Data element	4.0.X	4.1.0	Entities	Affected master and document files
Name	30 char	50 char	Customer master information	CM1P CM3P
Address lines	30 char	50 char	Vendor master information	VM1P ANP (1-time vendor)
City	18 char	35 char	Sales order addressing	O1P (contacts) O2P (override)
Zip/postal code	10 char	15 char	Purchase order addressing	POP

O2P (Sales order Override Name and Address): now has separate fields for CITY, ST, and ZIP No longer buried inside ODADR5.

## Address Validation Internal and external

- Why?
  - Increase Sales Order accuracy and deliverability
  - Reduce shipping fees and Minimize shipping delays
- ST notefile has optional Country entry
  - Value valid only when specified Country code is also used
- Frontier interface to U.S. Postal Service address validation service
  - Address verification provides suggested address changes for customer addresses, customer override addresses and sales order addresses
    - Pop-up asks if corrected address should be used instead
  - Optional feature to update zip codes to 10 digit values

#### Product, Customer and Vendor Attributes

#### · What?

- User-defined attributes attached to master entities (product, customer, vendor)
- Rather like PCM option list and working segments

#### Why?

- Facilitate decision support and data warehousing efforts
- Reduce need to explicitly change database (trailer files) and program logic.

#### • How?

- Dynamically define attributes, group into categories
- Attach attribute categories to products, customers or vendors
- Populate attribute values for attributes assigned to products, customers or vendors during master maintenance
- Can log changes made to attribute values

### Master File Change Logging

#### Why?

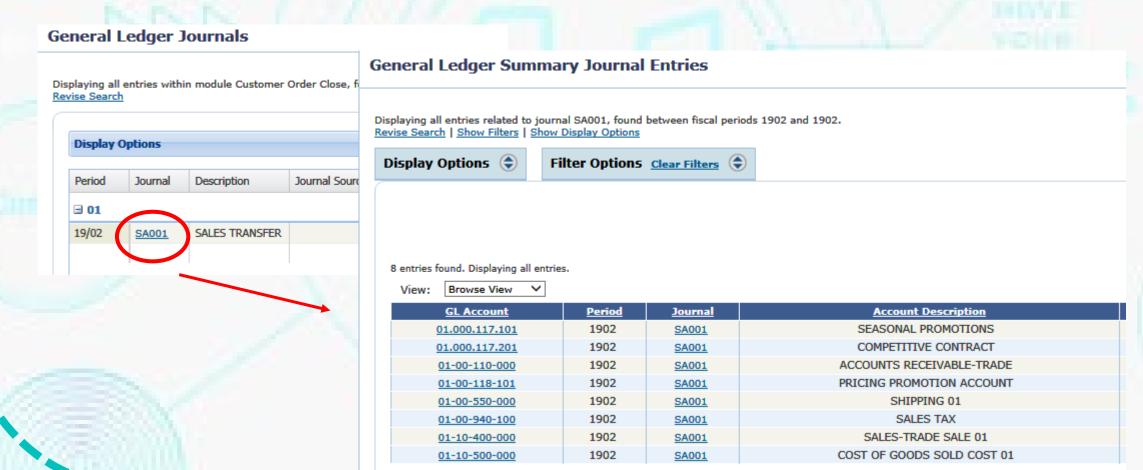
 Track and monitor any changes made to customers, product or vendor master data to manage content and for ease of issue resolution

#### How?

- Indicate which fields from master files should be logged
- Whenever changes are made to the selected master file fields using Frontier, an entry is logged with a record of who updated the data, when and how the update was made, and the before and after master field values.
- History of changes visible in UI Master file maintenance, as well as in stand-alone UI inquiry.

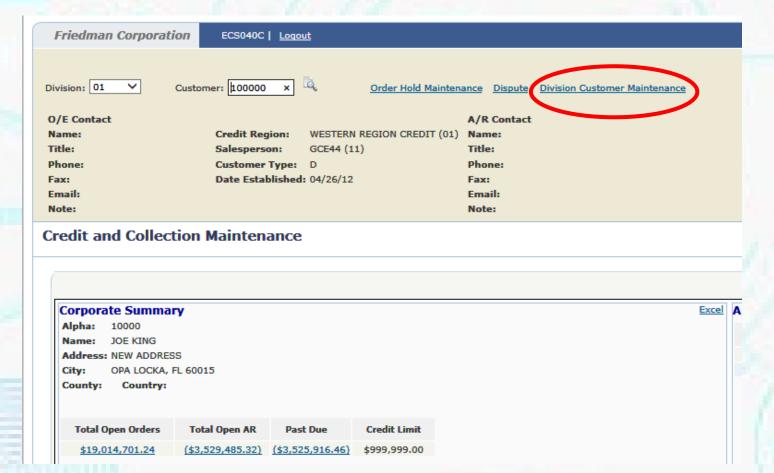
#### **Navigation Enhancements**

iGL Summary Journal Entry link to journal



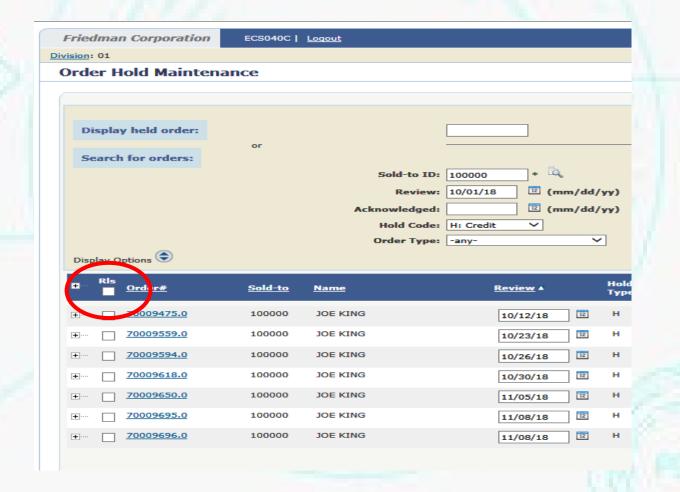
#### **Navigation Enhancements**

Customer Credit link to Division Master Maintenance



### **Navigation Enhancements**

Sales Order Hold Maintenance – select all



# Custom inquiries (Forward looking)

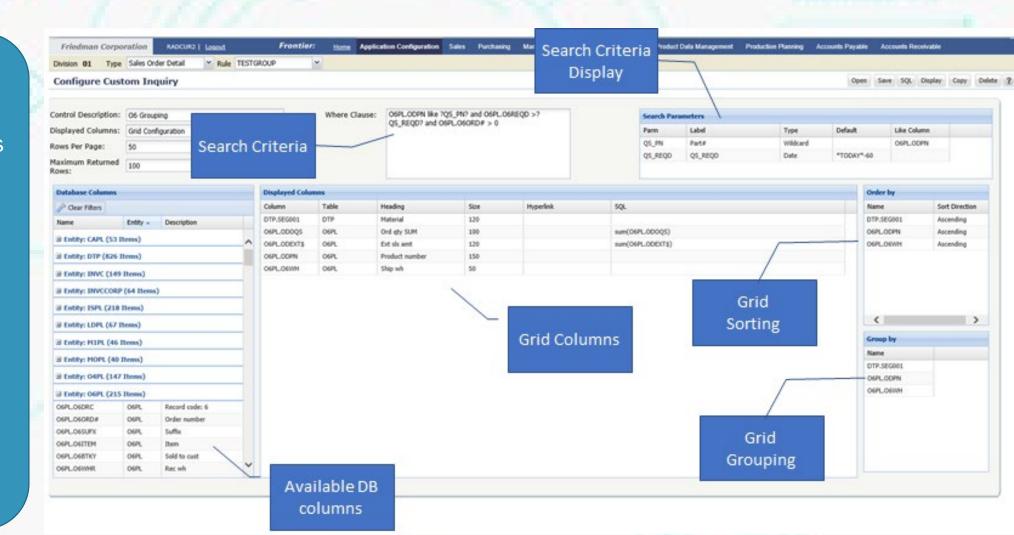
- · What?
  - User-defined inquiries integrated into the Frontier UI
- Why?
  - Address long-standing usability issues in ilnquiry
- How?
  - Wrap user-written SQL statements in the Frontier UI infrastructure
    - Provide a pre-packaged "data models" (views) to help
  - Runtime UI provides rich set of further manipulations
    - Show/hide/re-arrange columns
    - Dynamic sorting
  - Hyperlinks to other existing Frontier applications

# Custom inquiries (Forward looking)

Prototype "design view"

Incorporates concepts form both iSchedule and MasterFile UI

This is targeted for 4.1.0 GA





### **PCM Reusable option lists**

- What?
  - An option list can be included "in-line" in the current option list; like a BOM phantom
- Why?
  - Minimize option list maintenance
- How?
  - New control-type of "SUBL" indicates that the option is really a pointer to a separate option list which is to be embedded "in line"
- Example
  - Most models need to ask for HEIGHT, WIDTH, and THICKNESS
  - Make an option list DIMENSIONS that asks for HEIGHT, WIDTH and THICKNESS
  - Include DIMENSIONS as a [SUBL] on your option lists
    - Will show as HEIGHT, WIDTH, and THICKNESS to the user

## PCM Configuration Page "Expand all" property

- What?
  - On initial configurator display, show all frames expanded.
- Why?
  - Some users like to use F3 (Find) to search for specific options
- How?
  - A new iProduct property has been introduced which will allow an installation to indicate that all frames on the configuration page should appear expanded upon entry into the page
    - This is environment-wide

### PCM Option Value Inheritance (4.0.1)

#### What?

Allow selected options to inherit from the previous line item on the order

#### Why

Improve configuration process, reduces option selection and improves consistency

#### How

- An option may be defined to have the value automatically inherited from the previous line item on the order
- Inheritance may be specific to model (inherit from the previous line item with the same model only)

# Configuration Page Maintainable order quantity

- What?
  - Change the on-order quantity while maintaining the configuration
- Why?
  - Minimize keystrokes and navigation when entering or maintaining a configured sales order line item
- How?
  - The sales order line item on-order quantity is now maintainable on the configuration page
  - No need to go back to the sales order detail page to fix the quantity

### PCM Model Change on Sales Order Lines

- What?
  - Change the model on existing sales order line items
- Why?
  - Improve ease of sales order entry;
  - No need to delete and re-add.
- How?
  - Model (product) on existing sales order line items can be changed on either on
    - the Sales Order Detail page or
    - the Configuration page.
  - Restrictions: same as when changing the quantity or configuration
    - E.g. Not allowed if the associated work order is released.
  - Configuration segment values will be carried into the configuration of the new model, where the segment names match.
  - Model changes trigger reconfiguration of the line item.

#### **PCM Condition As Cache**

- What?
  - Cache "condition-as" model logic separately from the "order entry" models
- Why?
  - Performance and storage benefits
  - Model logic far more likely to remain in cache for most customers.
- How
  - New iProduct Property indicates that PCM Condition As models should be compiled and cached separately, rather then being "baked-into" each PCM model.
  - Requires that configuration segments assigned to the PCM model and the PCM Condition As model are consistent
    - You are doing this anyway, right?

### PCM Retain Option Value (4.0.3)

- What?
  - Prevent selected option values form being cleared on re-configuration
    - Normally, segment values associated with hidden options or frames are cleared
- Why?
  - Ease of option list maintenance
  - Important for &USERTYPE processing (next slide)
- How?
  - New option list detail field "Keep"
  - When set, associated segment value should not be cleared, even if option is hidden.

### PCM Keyword &USERTYPE

- · What?
  - New &USERTYPE keyword for use in conditions
- Why?
  - Control available configuration options based on "external" versus "internal" order applications
    - "Internal" users might have access to 'unsafe' options
- How?
  - New keyword of &USERTYPE for use in model conditions
    - Value INTERNAL when using the Frontier UI
    - Value EXTERNAL when using Frontier eQuote or Frontier WebServices
  - Intended for use in conditioning option lists; not recommended for use elsewhere!

### PCM Additional SVG Images (4.0.3)

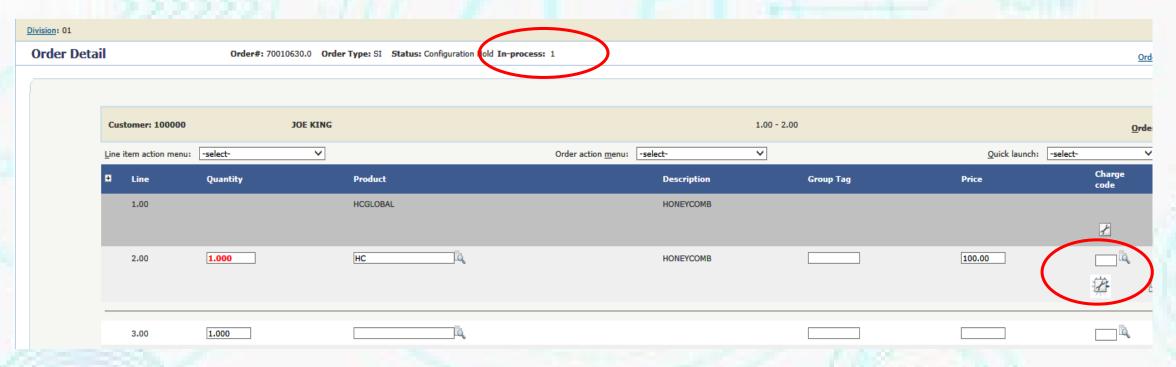
- Why
  - Supports generating more variations of SVG images such as a top view or a side view or different images for dealers to view, architects to use, etc.
- How
  - Additional 5 user-defined image fields have been added to the PRODIMAGES file

#### **PCM Option notes**

- What?
  - Requite additional free-form text for certain options or option-selections
- Why?
  - Details are required for a configuration option or a specific option selection
    - Specifications, descriptions, what-have-you
  - Exceeding usual 50-character limit
- How?
  - New "note" flag added to PCM Option List
  - When set, user MUST enter some text during configuration
  - Up to 1,600 characters can be entered
  - New Order Option Notes File (O5XP)
  - Visible in: Order Detail, iSchedule, AME, iSales

# Configuration processing Show total in process "spinners"

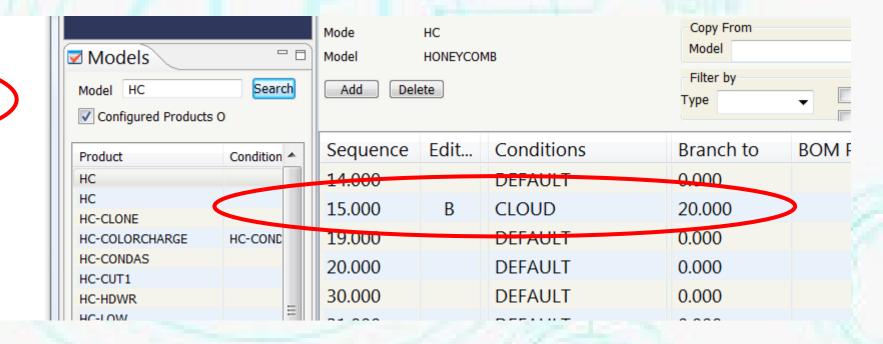
 Order Detail – indication that lines are in process – helpful for multi-page orders



# PCM debugging Branch-to (4.0.2)

Branch-to now included in PCM Trace

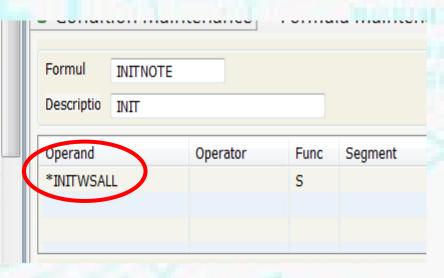
- -- Rule: 14.000 Condition: DEFAULT IS TRUE.(rule: 14.000)
- -- matrixvl: HCORDA... search arguments:(rule: 14.000)
- -- MODEL = /HC/(rule: 14.000)
- -- SEARCH CUCLESSFUL(rule: 14.000)
- -- Branching from rule 00014.000 to 00015.000.(rule: 14.000)
- -- Rule: 15.000 Condition: CLOUD(rule: 15.000)
- -- HCMATERIAL = /CLOUD/(rule: 15.000)
- -- Branching from rule 00015.000 to 00020.000.(rule: 15.000)
- Rule: 20.000 Condition: DEFAULT(rule: 20.000)
- -- MODEL = /HC/(rule: 20.000)
- -- Rule: 20.000 condition: DEFAULT IS TRUE (rule: 20.000)
- -- Branching from rule 00020.000 to 00030.000.(rule: 20.000)
- -- Rule: 30.000 Condition: DEFAULT(rule: 30.000)
- -- MODEL = /HC/(rule: 30.000)
- -- Rule: 30.000 Condition: DEFAULT IS TRUE.(rule: 30.000)
- -- Branching from rule 00030.000 to 00031.000.(rule: 30.000)
- -- Rule: 31.000 Condition: DEFAULT(rule: 31.000)
- -- MODEL = /HC/(rule: 31.000)
- -- Rule: 31.000 Condition: DEFAULT IS TRUE.(rule: 31.000)
- -- Branching from rule 00031.000 to 00100.000.(rule: 31.000)
- -- Rule: 100.000 Condition: HCROOMHOLD(rule: 100.000)
- -- HCROOM = //(rule: 100.000)
- -- Rule: 110.000 Condition: DEFAULT(rule: 110.000)
- -- MODEL = /HC/(rule: 110.000)
- -- Rule: 110.000 Condition: DEFAULT IS TRUE.(rule: 110.000)



## PCM rules \*INITWSALL

- Single rule to clear all working segments INITWSALL
  - Rather than using \*INITWS with names

12.000		DEFAULT	CPYHWD	HCHARDWARE
13.000		DEFAULT	HCORDN	HCORDN
14.000		DEFAULT	HCORDA	HCORDA
15.000	В	CLOUD		
19.000		DEFAULT	INITNOTE	*INITWS
20.000		DEFAULT	COPYNOTE	HCNOTE
20.000		DEFAULT	CETUCO	TUCCCOLOD

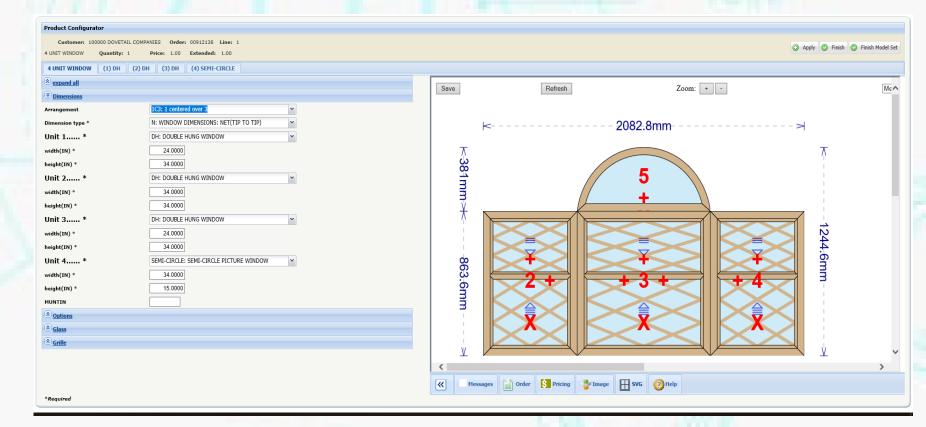


## PCM Option lists Secured options

- · What?
  - Secure individual options using existing CONFIGUREX UI security roles
    - CONFIGUREx security roles were introduced with 3.3 "error bypass" capability
- Why?
  - Useful in environments with heavily-engineered products.
- How?
  - Two new attributes in option list
    - Level require to UPDATE
    - Level required to VIEW (read-only)
  - Level:
    - 0 = highest authority (CONFIGUREO UI role)
    - 9 or blank = lowest authority (CONFIGURE9 role, or nothing)

## PCM Configuration page Show SVG in same page

 SVG rendering now shows within the configuration page as opposed to on a new page



#### **PCM Sales Order Line Item Cube Calculation**

 Ability to tell the system to calculate line item cube value from first level work orders and purchase orders

 Low level and purchase order cube values should be calculated and stored in the segment defined here:

Use this screen to update data area SOCUBE. This data area will determine if the sales order line item cube value should be generated by rolling up the cube value of the indented work orders for the line item at the time PCM manufacturing orders are generated in place of the standard cube defined for the model in Product Master Maintenance or the result of the \*CUBE user exit PCM rule.

Generate CUBE value 

(Y = Roll cube value from manufacturing orders)

(N = Use standard cube calculation process)

ECS040C	CONFIGURATION SEGMENT ASSOCIATED WITH CUBE	15:50:56
Use this scree	n to modify data area CUBESEG.	
	ll update the configuration segment associated lation data area.	d with
Make required	changes and press ENTER.	
Configuration	Segment Associated with Cube Calculation	

### PCM Miscellaneous (4.0.2)

- PCM Performance Improvements
  - Only store segments in work file WFWKP if they contain a value
  - Copy SVG drawings when copying an order or item instead of redrawing
- Global Model Inheritance: All segments (default) or just option list segments
  - MOMENUD2 option 18, AT34 "Global Model Settings"



# iSales Display sales order contacts

#### Shipping Information

Shipping Warehouse: 01
Carrier: UPS
Tracking Number:
Source:
Required Delivery Time: 0
Ship-To PO:
Shipping Instructions:
Backorder Code: Y
Acknowledged Flag: T
Shipper Print Flag: N
Cartons Packed: 0.000
Freight Terms Code:

#### **Date Information**

Entered: 2/26/20 Ordered: 2/26/20 2/26/20 Required: Req Delivery: 2/26/20 Promised: 3/11/20 Promised Delivery Date: 3/11/20 Printed: Picked: Shipped: Adv Ship Notice: Acknowledged: Invoiced: Cancel By:

#### Sales Information

Division: 01
Payment Terms: 15
Credit Card Authorization:
Sales Territory:
Credit Reference:
Sold-To PO:
Credit Region: 01
Credit Reason:
User: ECS040C

#### Load Information

Load: Load Sequence: 0.00 Load Status: Pro Number: Trailer Id:

\$ 7.50

-885.20

\$ 3,748.89 \$ -3,741.39

#### **Contact Information**

Name	Customer	Contact Type	Title	Email Address	Phone	Ext	Fax	Note
Sheryl Wilson	100000	FXORD	Purchasing manager	SWILSON@COMPANY.COM	555-222-1212		555-111-1212	
Joan Smith	100000	FXORD	shipping manager	JSMITH@COMPANY.COM	222-555-1212		111-555-1212	
Jean Blue	100000	FXORD	Plant manager	JBLUE@COMPANY.COM	555-333-1313		555-222-1313	
			_					

Item Pro 1.00 F3 Sales order contacts (O3P) now visible in iSales Sales Order Details

C	Ext Amount	Unit Amount	No Charge Code	Pick / Ship Qty	Allocated Qty	Sales Unit of Measure	ordered Qty
\$ 3,	\$ 7.50	\$ 50.00		0.000	0.000	EA	1.000
			\$ 0.00	Total Charges			
			\$ 7.50	Sub Total			

Total

Cost

Margin Margin %

### Sales Order Activity Logging

- What?
  - Track changes on selected data elements of sales order
  - Includes configuration segments values
- Why?
  - Issue resolution, blame, potential change-management improvemnt
- How?
  - Indicate which data elements and/or configuration segments should be logged
  - Determine if system events should be logged
    - System events: normal actions taken by the system e.g. changes made by OEPR
  - Based on database triggers; system manages triggers
  - Change logs visible in iSales Inquiry for a specific order, or new UI application across multiple orders

# Sales order activity notes Activity note type

- What?
  - Optionally require the entry of a valid note type when adding a new activity note (O3P)
- Why?
  - Classify notes for later analysis
  - Control which notes are exposed to the customer
- How?
  - New note file "03"
    - Defines note types and WO/PO/Ack flags with note
  - When adding a note, type is required unless an entry of "\*" exists
  - Using a note type locks print flags

LODER		NOTE TYPE MA	INTENANCE				5/18/20
Type 03	ORDER ACTIVITY	NOTE TYPES		2:5	·		15:57:00
				,0°	rnt	code	, NO
Numb Sfx [	Description				1 2	3 4	Chg-dt By
* [	DEFAULT						60818
MISC	MISCELLANEOUS ACTI	VITY	1/2	×	$\overline{N}$ $\overline{N}$	$\overline{N}$	60818
QUEST	QUESTION TO CUSTOM	IER	0	05	$\overline{Y}$ $\overline{N}$	N	60818
SHOP	MESSAGE TO SHOP	.,0,_	10	10,	$\overline{N}$	$\overline{N}$	60818
SPEC	SPECIAL ORDER INFO	RMATION	10	No.	$\overline{Y}$ $\overline{Y}$	$\overline{Y}$	60818
WARR I	WARRANTY COMMENTS				$\overline{N}$ $\overline{Y}$	N	60818
	X	/x /x	X				

# Order promising Automatically lock promise dates

- What?
  - Optionally:
     Lock promise date as soon as system has assigned a valid promise date
- Why?
  - Honor promise date communicated to customer
  - Prevent inadvertent changes of promise dates
- · How?
  - RSMENU Option 56 "Order Promise Lock Date" RS41
    - By Warehouse
  - Valid date(s) locked when orders booked
  - Subsequent order maintenance prompts asking if order should be re-promised

### Contract pricing accounting Expense discounts

- What?
  - For specific contract price regimes, allow discounts to be booked (expensed) to the GL separately
- Why?
  - Isolate contract pricing discounts into appropriate GL account
- How?
  - NF68 "CP" Contract Price Reason code: attach GL alpha code
  - Reason code selected when locking a Contract Price on an order assigns GL account alpha to adjusted/discounted line items
    - Discount 1 alpha code gets set
  - Month End accounting distributes discount amount to GL account
    - Credit gross revenue SALE\_wh
    - Debit sell discount CP reason code alpha code
      - This is existing 4.0.0 function (EC50775)

### Pricing Price based on net model price (\*BASENETPR)

- What?
  - Compute price-adder pricing based on NET of parent model
    - Current \*BASEPR works on gross before discount
- Why?
  - Many PCM price adders need to share parent model discounting; they do not discount separately
- How
  - \*BASENETPR formula exit prices adder based on net parent model price as opposed to \*BASEPR which prices adder based on gross parent model price

# Pricing New price list rounding value of "H"

- New value of H added to Price List Rounding when applying the result of the formula against the normal price specified
  - D round down to the nearest dollar
  - N round down to the nearest penny
  - P round up to the nearest penny
  - U round up to the nearest dollar
  - H round to the dollar (standard rounding, like half-adjust)

## Order entry New order action "Verify Order"

- New action performs "order completion validation" without completing and exiting the order
- Validation includes executing the Order Completion User Exit (OE34) if applicable
  - User exit program gets told if this is "verify only"
- Allows an order to be "checked" prior to actual completion

Order Entry Completion User exit
was added in 4.0.0.
It is a user-written program which
can perform arbitrary checking and
modification of the sales order.

Use this data area to indicate a user-written RPGLE program which is invoked just prior to a sales order being submitted for booking in OEPR.

User exit routine name TOEUFNOCFH

## Order processing Over-ship can now be a hard error

- Over Shipping was previously a soft warning, now can be made a hard error
  - Default is Y allow overship
- Eliminates problem of accidentally inflating on-order quantity due to keying errors

OEMENUD Option 62
Over shipping Default (OE36)
By warehouse

ECS040C OVER SHIPPING 2/26/20 09:24:17

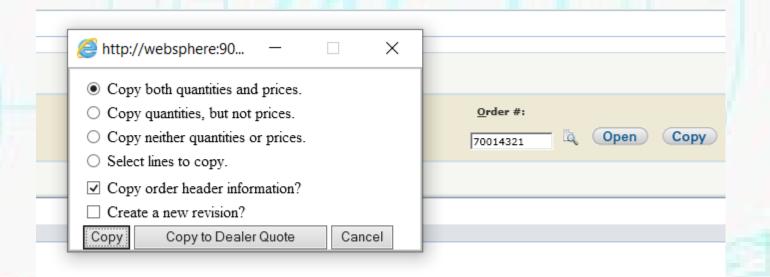
Use this screen to update parameter OVRSHIP for warehouse

A "Y" value indicates over shipping is allowed and the shipping programs will continue to function with the soft warning as they do currently. An "N" value indicates over shipping is not allowed and a hard error will appear if the shipping quantity on any line item exceeds the order quantity.

Is over shipping allowed? \_ (Y or N)

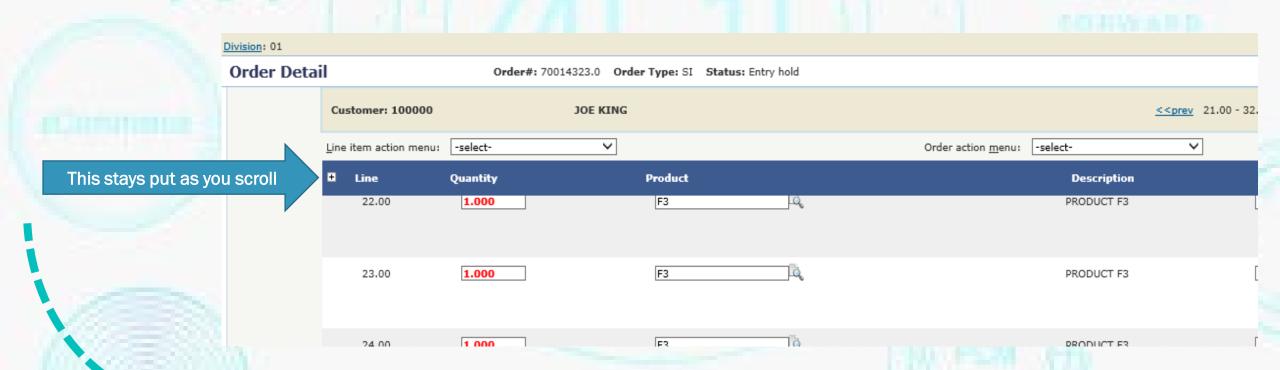
# Order entry Sales order copy includes Order Contacts

 When "copy header information" is selected, order contacts will be included in the copy



### Order entry Fixed headings on detail pages

 The column headings on the sales order and RMA detail pages will remain fixed when scrolling through an order with many lines



#### Sales Order Archiving

#### What?

- Move fully-invoiced and completed sales orders to a separate set of database tables
- Sales orders remain visible as read-only copies
- Sales order numbers can roll over across archives

#### Why?

- Improve database performance
- Reduce amount of data copied when creating a test environment
- Reduce backup window

#### How?

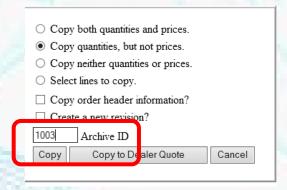
- New Sales Order Archiving Process
- Moves selected sales orders to archive files
  - AX\_OHP, AX\_O4P, AX\_O6P etc
- Orders get an archive ID in addition to order number
- Archived orders can be searched and copied...

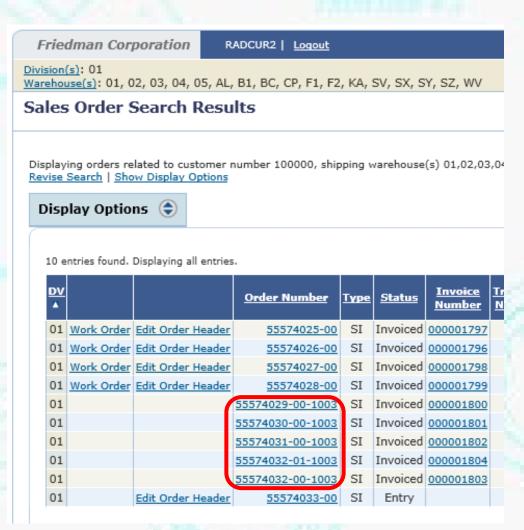
#### Sales Order Archiving continued

iSales Inquiry: request search to include archives



- Results show archive id
- Can copy full or partial archived order





#### Sales Order Attributes

- What?
  - User-defined attributes attached to sales order
  - Rather like PCM option list and working segments
- Why?
  - Downstream decision support
- · How?
  - Dynamically define sales order attributes and sales order categories
  - Attach attributes to the appropriate sales order categories
  - Attributes are automatically added to sales order header processing
    - From customer attributes

### Customer order sales tax Avalara AvaTax support

- What?
  - Provides support for Avalara Avatax as an alternative to traditional Frontier sales tax processing
    - Cloud-based
    - Supports US and Canadian tax regimes in all jurisdictions
    - Streamlines Sales Tax (SST) fully supported
    - Optional certificate management
    - Optional tax return filing
- Why?
  - Anyone selling across state boundaries needs sophisticated tax calculation and compliance solutions.
- How?
  - Sales tax substantially reworked in Frontier 4.1
  - New "plugin" architecture
    - Existing Frontier sale stax is now just another plugin

# Dealer quotes Force converted quotes to be read-only

- What?
  - Optionally prevent convcerted dealer quotes from being opened for maintenance in regular order entry
- How?
  - New iProduct property can be used to prevent a user from opening the converted quote in Order Header or Order Detail
  - Instead, the system will open the converted quote in iSalesHow:

```
cyroperty>
    isShowConvertedQuoteAsReadonly

    converted quote in order entry will
    re-direct to iInquiry as read only
    colored converted con
```

### iDispatch Acknowledgement

 Acknowledgements printed from within iDispatch can be directed to their own output queue

ECS040C

IDISPATCH OUTPUT QUEUE

2/26/20 10:08:16

Use this screen to update data area DSPACK for warehouse

The iDispatch documents will be directed to the output queue specified below.

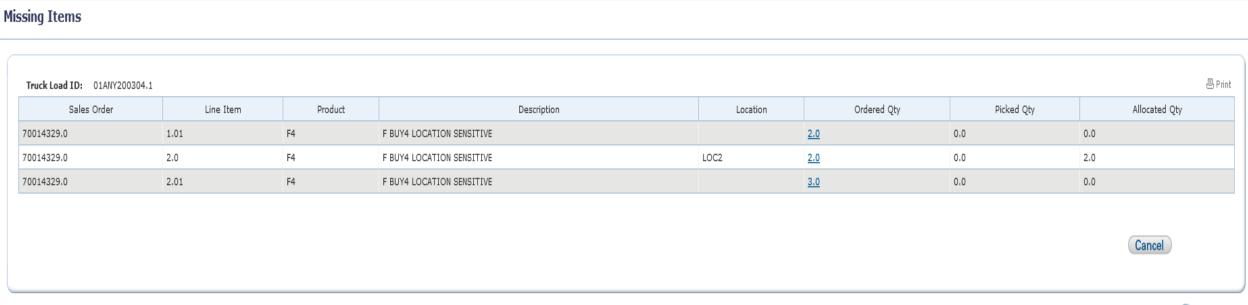
Leave the output queue as \*DEFAULT to send the documents to the default output queue.

Acknowledgements (ORD001) \*DEFAULT



# iDispatch execution Missing items report shows location

Location has been added to the iDispatch Missing Items report



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### ECN Master File Maintenance UI

- What? ECN green screen function migrated to UI:
  - PM80 ECN Master
  - PM83 ECN Authority/Comments
- Why?
  - Remove the requirement to access green screens to perform this function
- How?
  - Under Product Data Management
    - NOTE: PM80 and PM83 continue to exist in green screen as of 4.1.0. No guarantees for future releases



### ECN Master maintenance UI enhancements

- Multiple products may be added to an ECN by copying the list of products into a new popup as opposed to adding each individually
  - E.g. copy list from Excel spreadsheet

### Inventory control Preserve allocated inventory

- What?
  - ST26 and UN01 should not consider allocated inventory as available to move
  - Issues warning if move\_quantity > (on\_hand allocated)
    - Previously was move\_quantity > on\_hand
- Why?
  - Avoid moving location sensitive inventory that has been allocated to sales orders
- How?
  - ST26 and UN01 changed to issue warnings above
  - iSales Inquiry enhanced to allow for searching open sales orders by location so allocated orders can be found
  - A link between UI Inventory Lot/Location Availability to iSales has been added

## Work Order BOM maintenance UI UI improvements

#### What?

- Copy-and-paste component changes from spreadsheet
- Open and close work order from BOM maintenance
- Column headings fixed (do not scroll)

#### Why?

- Improve performance and ease-of-use
- Wean users off WO30

#### How?

- Underlying API behind Work Order BOM Maintenance UI substantially reworked
- New functionality to copy and paste component changes, additions and deletions from a spreadsheet into a work order's BOM
- The ability to CLOSE or OPEN a work order has been added
- Column headings have been set to be fixed in place while scrolling

4.0.3

### Work Order Operation maintenance Ul Ul improvements

- What?
  - Copy-and-paste operation changes from spreadsheet
  - Column headings fixed (do not scroll)
- Why
  - Improve usability and performance of the application
- How
  - Underlying API behind Work Order Operations maintenance UI substantially reworked
  - New functionality incorporated which provides the ability to copy and paste operation changes, additions and deletions from a spreadsheet into a work order
  - Column headings have been set to be fixed in place while scrolling

# MRP Rolling days of supply (DOS)

- Control how days of supply (ISDSLY) in inventory segment is planned:
  - Existing: Quantity planned in first period of planning horizon
     -OR-
  - New: Quantity calculated on every day of planning horizon
- New data area
   PCMENUD Option 62
   MRP DOS Functionality (MP11)
  - Default is just the first day

RADCUR2 MRP DAYS OF SUPPLY FUNCTIONALITY 2/27/20
08:52:38

Use this screen to update parameter DAYSOFSUP for warehouse 01 WINDOW & DOOR

This parameter is used by MRP to determine whether to react to the days of supply value for every day in the planning horizon or just the first day.

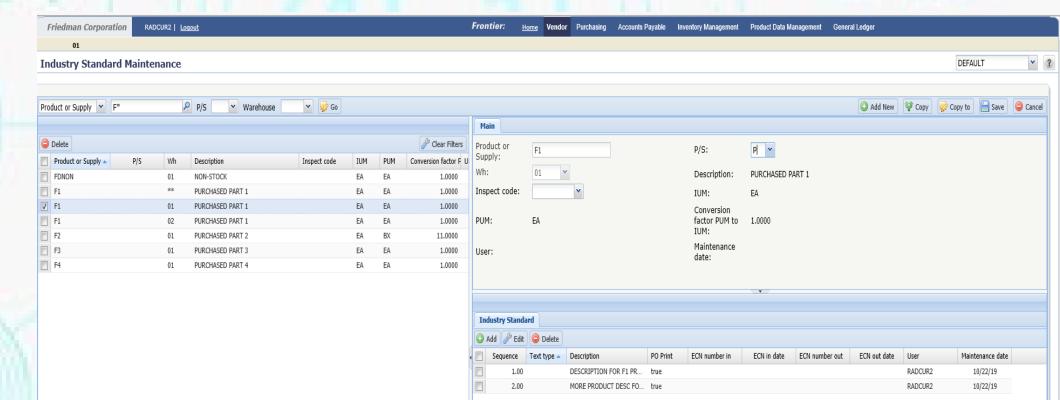
(Y or N)

Days of supply every day N



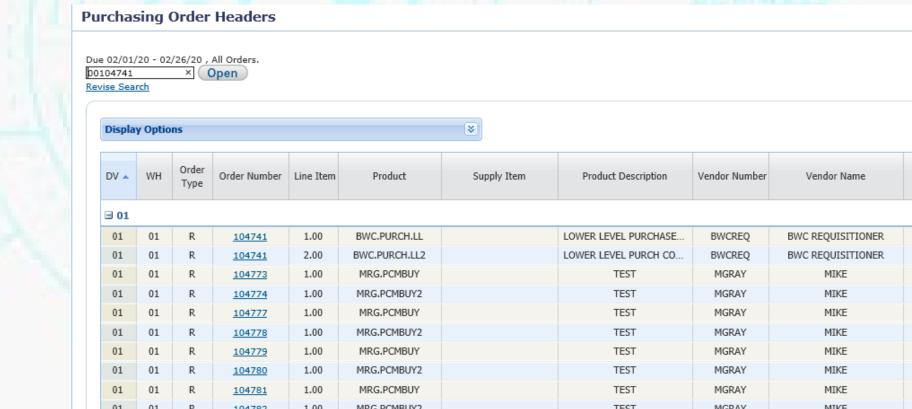
### Vendor quote maintenance Ul Industry standard descriptions

- Maintenance for the Industry Standard Description (VIP) file added to the UI
  - The "missing piece" from QM11.



### Purchasing Inquiry Vendor name and PO Input

- Vendor Name has been added to the results page
- New field to input PO number allows display without leaving page



## Purchase Order Receiving Supply description (4.0.2)

Combined column for product/supply description

