

# Frontier iLogging for Master Files and Sales Orders

Dehn Loder  
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# About this presentation

- A review of the Frontier iLogging product
- *Not* a user guide! Orientation only.
- This presentation is being recorded
  - Link to recording and PDF of deck will be made available to registered attendees
- Audience is muted, but do use the Q&A and Chat features
  - They are being monitored
- All set?

# Frontier iLogging: What is it?

- A new module in Frontier 4.1
  - Has a distinct license key
- Logs changes to
  - User-selected fields in **master files**
  - User-selected data elements in **Sales Orders**
- Change logs include
  - Date, time, and user
  - Before and after values
- Extensive inquiries into change logs
  - You can also write your own queries over the change logs

# Frontier iLogging: Why?

- “Why is my data wrong?”
- “Why does this error keep happening?”
- “Data error, or Process error?”
  - → Insights can lead to process improvement
- Support training initiatives
- Problem diagnosis
- Confirm (or deny) user reports

# Why a separate product?

- IBM i has plenty of tools for tracking changes, right?
- **What about Journaling?**
  - All-or-nothing solution: captures ALL change, even ones we don't care about
  - Must manage data retention (journal receivers)
  - Journal data has to be extracted and parsed before it can be (sensibly) used
- **What about triggers?**
  - Have to write, install, and maintain trigger programs
  - Add new elements to be tracked? Change the program.
  - Still need to write an inquiry over the results
- **Event notification?** By itself, no; interesting if used on log files!

# iLogging for Master files

[52416]

# iLogging for Master files: What master files can be tracked?

- Customer master
  - Divisional customer (CMP, CMP\_TRL)
  - Corporate customer (CM1P, CM1P\_TRL)
  - Customer group (C1GP)
  - Customer attribute values (C1AP)
- Inventory Segment (ISP, ISP\_TRL)
- Product Master (PMP, PMP\_TRL)
  - Product group master (PMGP)
  - Product attribute values (PMAP)
- Vendor master
  - Divisional vendor (VMP, VMP\_TRL)
  - Corporate vendor (VM1P, WM1P\_TRL)
  - Vendor group (V1GP)
  - Vendor attribute values (V1AP)
- Frontier Attributes
  - Group (GRMP)
  - Group Attributes Settings (GASP)
  - Group Templates (GRTP)
  - Template (TMPP)
  - Template Attributes (TMAP)

# iLogging for Master files: Where are changes tracked?

- Frontier UI Master file maintenance programs (“MFUI”)
  - This includes the user-defined “\_TRL” files
- As of Frontier 4.1, selected “legacy” green screen programs
  - CM50 Corporate Customer (CM1P) maintenance
  - CM52 Divisional Customer (CMP) maintenance
  - PM70 Product master (PMP) maintenance
  - PM73 Inventory segment (ISP) maintenance
  - VM08 Corporate Vendor (VM1P) maintenance
  - VM10 Divisional Vendor (VMP) maintenance

Expect these programs to be **decommissioned** in a future Frontier release.



# iLogging for Master files: Worthy of note

- Only user-initiated changes are tracked
- Only Frontier-supplied interfaces track changes (no triggers):
  - MFUI, some legacy green-screen programs
  - Spreadsheet uploads when using our interfaces
- *Data transfer uploads, user written programs and direct SQL updates are not included!*
- The “change log” is new file **CHLGP**
- Purge procedure for change log:  
ICMENUMF Option 110

## CHANGE LOG PURGE DATE RANGE

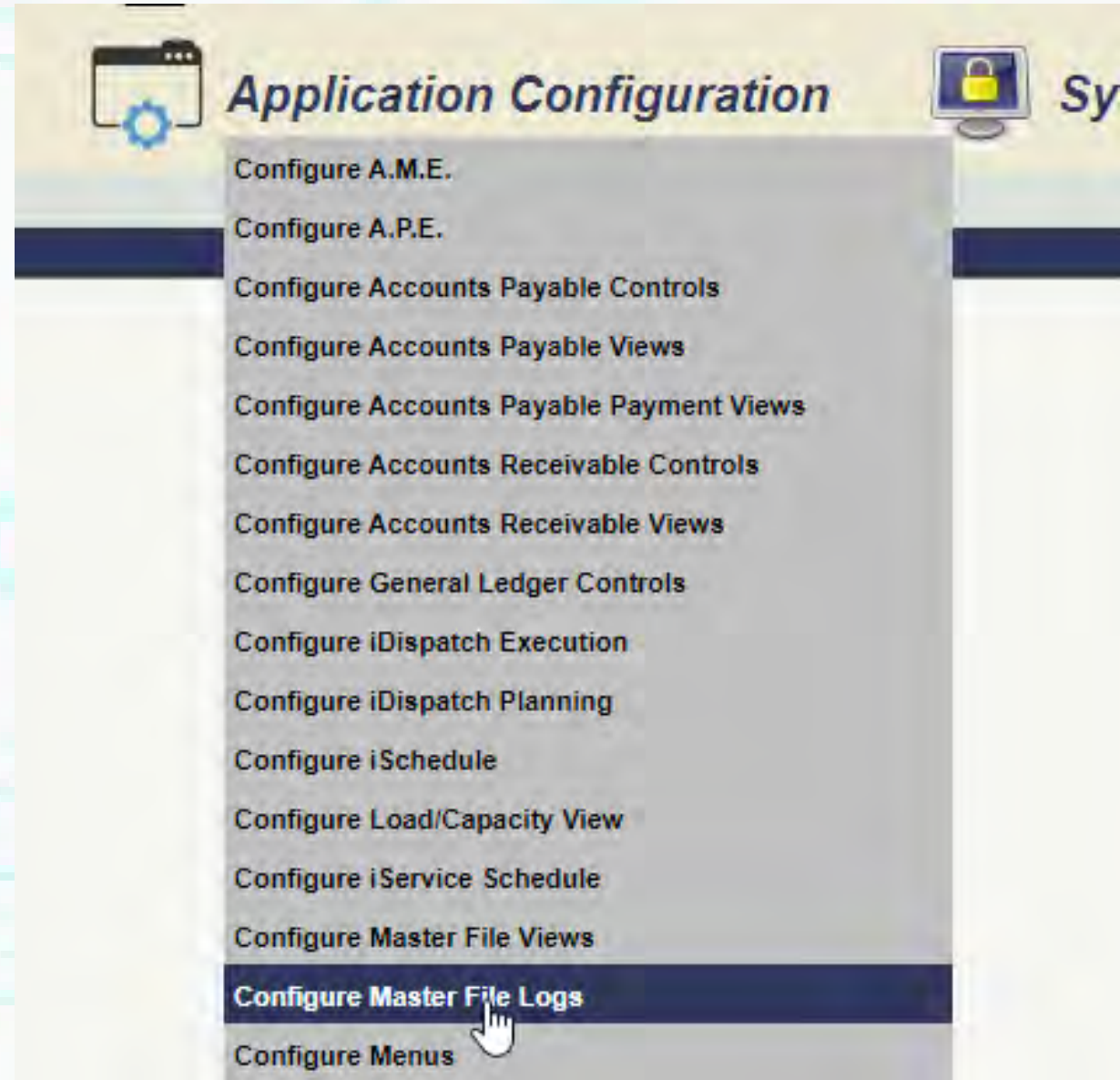
The Purge dates are currently the values shown below. To change these values, key the new values over the ones displayed, and Press ENTER.

Beginning date \_\_\_\_\_ (MMDDYY)

Ending date \_\_\_\_\_ (MMDDYY)

# iLogging for Master files: Setup tasks

- Choose the files and fields you want to track:  
*Application Configuration > Configure Master File Logs*
- There is a new security role for this: **MFLGCONFIG**



## Demo:

# Setting up logging on Inventory segment (ISP)

- Let's select the following for logging in the Inventory Segment:
  - ISMAOP – Order promising code
- And some MRP-related fields, too:
  - ISMSCD – MRP/MPS code
  - ISORDX – Order replenishment policy
  - ISFOQ – Fixed/multiple order quantity
  - ISPER – Period order

Division **K9** Type Inventory Segment

### Configure Mast

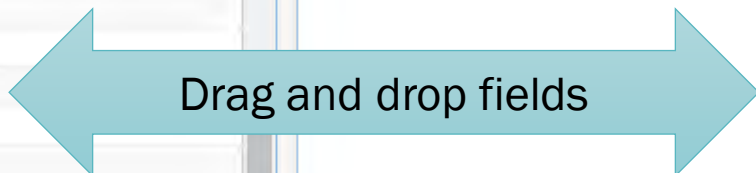
Open Save

#### Database Columns

Name	Description
ISMAOP	Order Promising code
ISNAOH	Receive
ISNMFC	National
ISOPTM	Cut Part
ISOSAL	Over sh
ISPALH	Allocate
ISPART	Product
ISPDRC	Previous
ISPDRJ	Previous
ISPER	Period to order
ISPFCS	Prior sales forecast
ISPGCD	Demand time fence
ISPLNR	Planner
ISPOCC	Purchase order create flag
ISPQRC	Previous year qty received
ISPQRJ	Previous year qty rejected
ISPRCT	# of receipts
ISPREQ	Production req
ISPSTF	PST exempt flag
ISPSTS	Product status
ISPTYP	Product type
ISPWH	Shipping warehouse

#### Logged Columns

Column	Description
ISMAOP	Order Promising code
ISMSCD	MPS/MRP code
ISFOQ	Order qty
ISORDX	Order policy



Drag and drop fields

# Worthy of note

- The order of the fields on the right pane doesn't matter
- You'll notice that *all* the fields in ISP are listed, even if they are not maintainable in the MFUI
  - E.g. ISSTOH – On hand: value will never change in the UI
- Don't forget to hit SAVE
- Changes take affect right away!

**Demo:**

## **Change inventory segment, look at logs**

- Let's make some changes in the MFUI against ISP
- Are we recording our selected fields?
- How do we access logs?

K9

## Inventory Segment Maintenance

DEFAULT

Product number  Warehouse

Product number	Warehouse	Account number	Location number	On hand	Safety stock
<input checked="" type="checkbox"/> DXLPCM	01	1		0	0.000

Warehouse:  Product number:

Description:

MFUI now has an  
"Associated" tab

## Log Change Records

Product	Wh	Record Action	Field Name	Before Value	After Value	Field Description	Date/Time	User	Program
DXLPCM	01	U	ISORDX	Sort Ascending		Order policy	2021-02-24 12:26:08.900000	FRN0411	PRISPM00
DXLPCM	01	U	ISMAOP	Sort Descending		Order Promising...	2021-02-24 12:24:39.949000	FRN0411	PRISPM00

websphere.fcdomain.net:9080/mf/4.1/LoggingInquiryServlet?fileName=ISP&keyField=DXLPCM&keyField2=01&viewReadOnly=false&random=0.29595208381435234#

Displaying records 1 - 2 of 2

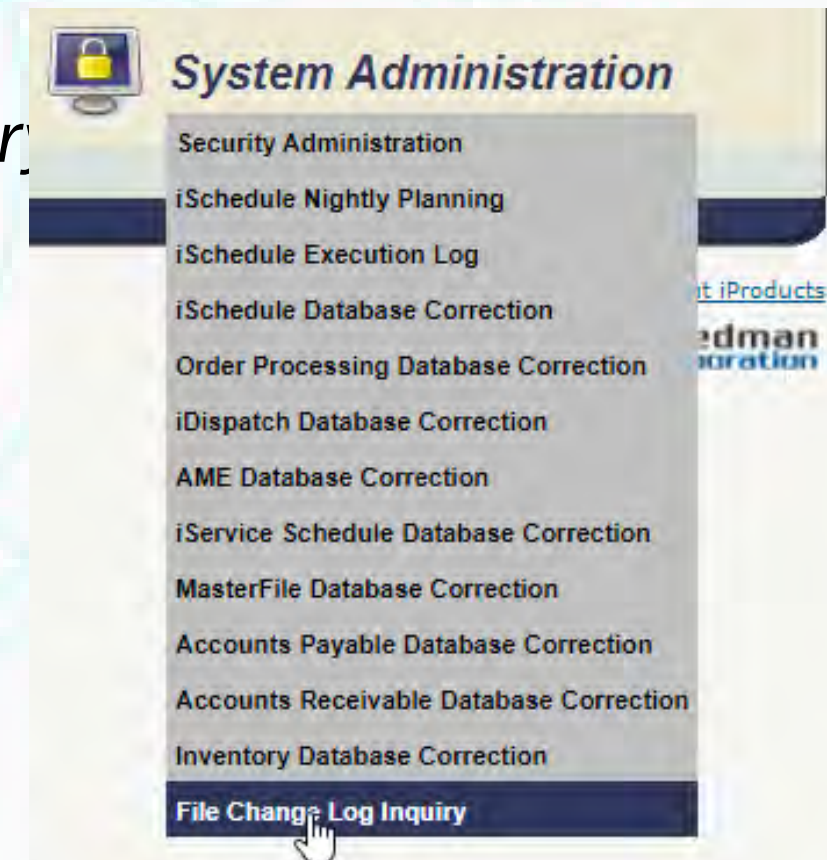
# Worthy of note

- When you access the *Change Log* inquiry form the MFUI, you get just the selected file and record.
- There is also a “global” search  
*System Administration > File Change Log Inquiry*
- Change Log Purge:  
IFMENUF Option 110

```
CHANGE LOG PURGE DATE RANGE

The Purge dates are currently the values
shown below. To change these values, key
the new values over the ones displayed, and
Press ENTER.

Beginning date  _____ (MMDDYY)
Ending date    _____ (MMDDYY)
```





# System Administration

## > File Change Log Inquiry

Friedman Corporation | FRN0411 | Logout | Frontier: | Home | System Administration | Sales | Purchasing | Manufacturing | Inventory Management | Data Management | Accounts Payable | Accounts Receivable

**Logged File Record Search**

File Name:  Field Name:  User Name:  Date (>=):

**Log Change Records**

Product	Wh	Record Action	Field Name	Before Value	After Value	Field Description	Date/Time	User	Program
DXLPCM	01	U	ISMAOP	R	Y	Order Promising...	2021-02-24 12:24:39.949000	FRN0411	PRISPM00

Page 1 of 1

Displaying records 1 - 1 of 1

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Access to this inquiry  
requires the  
**LIMAST**  
security role

# iLogging for Master files: Availability

- iLogging for Master Files is **available in Frontier 4.1.0.**
  - iLogging for Master files will require an addendum
    - Requires a license key (1FR41II Frontier 4.1 iLogging)
- Prior releases, please request retrofit quotation
  - You must be on IBM i 7.1 or higher

# iLogging for Sales orders

[52530, 52531, 52706]

# iLogging for Sales orders: What can be tracked?

- Sales Order data elements in:
  - Header (OHP)
  - Contacts (O1P)
  - Address override (O2P)
  - Activity notes (O3P)
  - Billing header (O4P)
  - Billing tax group (O4T2P)
  - Billing trailer (O4TP)
  - Detail (O6P)
  - Detail extension (O8P)
  - Line-level BOM (MEP)
- “Process” (System) events
  - New order created
  - New order line created
  - Order [Completed] by user
  - Order sent to OEPR
- Selected configuration segment values

# iLogging for Sales orders: Where are changes tracked?

- Everywhere.
- Implementation is via database triggers on order files
  - iLogging writes the trigger program for you
- Therefore all updates can be logged, regardless of source.
  - So do be careful here.
- Some “system” events are captured programmatically

# iLogging for Sales orders: Worthy of note

- Trigger implementation is NOT like Event Notification
  - There is no async processing; it's all synchronous.
  - Body of trigger detects changes and writes to logs
- The change log file is new file **OALP**
- Log file records for order get purged with order
  - OEMENUR “Purge order files” (ORD950)

# iLogging for Sales orders: Setup tasks

- You do need some familiarity with Frontier sales order files
  - To know which file your data element is in
- Initial trigger application.
  - If this is the first time setting up logging for a given order file, a trigger program has to be attached
  - Attaching a trigger requires dedicated access to the file!
  - Once the trigger is attached, you're OK
- Access to Configure Sales order Logs needs the **SOLOGCONFIG** security role
- *Application Configuration > Configure Sales order Logs*

**Demo:**

## **Set up Sales order logging (file based)**

- We want to track changes to OHP.OHC01 (Sub order type)



# Setup: Sales Order Activity Logging (OA02)

```
FRN0411          SALES ORDER ACTIVITY LOGGING          2/25/21
                                                    15:07:51

Use this screen to modify data areas OALUSRACT and OALSYSACT.

These settings are used to activate and deactivate all or portions
of Sales Order Activity Logging.

Log Sales Order Activity              Y  (Y or N)
Log Sales Order System Activities     N  (Y or N)
Log Sales Order Header System Activities Y  (Y or N)
Log Sales Order Detail Activities     Y  (Y or N)

OA02
F3=Exit
```

## Order Header System activities:

- Order created
- Line item created
- Order sent to OEPR
- Order processed by UI [Complete]
- Order processed by OEPR

## Order detail activities:

- Line item sent to WO10

# Setup: Trigger attachment

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Division K9

## Configure Sales Order Logs

### Configure Sales Order Logs

File:   Logging Active:  Trigger Program Last Created:

Trigger Program Attached:

### Not checked?

Check the box and [Save] to attach the generic trigger. *This requires dedicated access for a few seconds.*

### Checked?

Uncheck and [Save] to remove the trigger.

Division K9

## Configure Sales Order Logs

Open

Save

?

## Configure Sales Order Logs

File: Sales Order Header

Logging Active: Trigger Program  
Last Created: 0000/00/00 00:00:00Trigger Program Attached: 

Create/Recreate Trigger Program

## Database Columns

Name	Description
OHDRC	Order status: " " =available H=hold P=process pendi
OHORD#	Sales order number
OHLSUF	Last suffix assigned
OHSTKY	Ship to customer
OHBTKY	Sold to customer
OHIVKY	Invoice to customer
OHPRKY	Price as
OHDIV	DV Division
OHOTYP	Order type code: SI=ship and invoice (default) IO=
OHOVSW	Override ship to name and address, type O in this
OHOVBW	Override invoice to name and address, type O in th
OHCRGN	RG Credit region
OHCNTY	CO County
OHST	ST State
OHZIP	Zip code
OHCTRY	CY Country
OHTAXG	TX Tax group
OHTXCD	Order taxable code: if TAXVS=S(sales) or V(vat): *
OHTERR	TR Sales territory

## Logged Columns

Column	Description	Category	User Defined Description
OHCO1	Customer order type not used	PROMISE	

Update Cancel

Drag and drop fields

Use **Category** to help classify interest in this field.

Frontier will use two categories:  
**SYSTEM**: system process events  
**CONFIG**: a configuration segment changed

You can use **SYSTEM** and **CONFIG** if you like, but this may lead to confusion.

# Setup: Create/recreate trigger program

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Division K9

## Configure Sales Order Logs

Configure Sales Order Logs

File: Sales Order Header  Logging Active

Trigger Program Attached:

Create/Recreate Trigger Program

After changing the configuration, don't forget to  
Create/Recreate Trigger Program

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## Configure Sales Order Logs

File: Sales Order Header  Logging Active

Trigger Program Attached:

Create/Recreate Trigger Program

Trigger Program Last Created: 2021/02/25 12:42:43

### Database Columns

Name	Description
OHDC	Order status: " "=available H=hold P=process pendi
OHORD#	Sales order number
OHISUF	Last suffix assigned

### Logged Columns

Column	Description
OHCO1	Customer order ty

# Setup: Logging active

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## Configure Sales Order Logs

### Configure Sales Order Logs

File:

Logging Active:

Trigger Program Last Created:

Trigger Program Attached:

Use this to quickly enable or disable logging on this order file. Does not remove or attach the database trigger.

**Demo:**

## **Change sub-order type, what happens?**

- Use SOE to change sub-order type
- Use new Log order action to see results

# Example: Change of sub-order type...

\* Required field

## Header Details

### Order Information:

Ship to PO	Sold to PO	Orig Order	Consumer	*Order Type	Order Category	Suborder type	Quote Type
<input type="text" value="DMO"/>	<input type="text"/>	0		<input type="text" value="SI"/>	<input type="text"/>	<input type="text" value="WARNT"/>	<input type="text"/>

### Timing:

*Order Date	Req. Ship Date	Req. Delivery Date	Promise Date	Cancel By Date	In Transit Days	Promised Delivery Date	Priority	Invoicing Timing
-------------	----------------	--------------------	--------------	----------------	-----------------	------------------------	----------	------------------

Save

# Example: Logged change

Sales Order Inquiry:  
new order action  
**Sales Order Logs**

User needs **SOMAST** security role to access

**Friedman Corporation** FRN0411 | [Logout](#)

Division(s): 01  
Warehouse(s): 01, 02, 03, 20, 30, A7, B9, BC, BG, DG, DH, DI, DX, DY, DZ, FA, H6,

### Sales Order Detail

Details for Order Number 60097558-00  
[Revise Search](#)

Order action menu:

-select-

1. Cash in Advance
2. Pricing review
3. Pricing summary
4. Print Acknowledgment
5. Print Shipper
6. Customer Credit
7. Customer Contacts
8. Sales Order Logs

Sold-To	Ship-To
<b>100000</b>	<b>100000</b>
MILLER PRODUCT 1450 STEVENSON BUILDING 200 NASHVILLE, TN 88877 USA	MILLER PF 1450 STE BUILDING NASHVILLE USA

### Sales Order Activity Logging

Order Number From:  Order Number To:  Changed By:  From Date:  To Date:

Item Number:  Category:  File:  Field:  Hide System Activity:

### Sales Order Logs

Order	Suffix	Item	File	Field	Category	Field Description	Change Description	Before	After	Changed By	Program	Date/Time
60097558	0	0.00	OHP	OHCO1	PROMISE	Customer order type not used	Value changed		WARNT	FRN0411	PRO4UP00	2021/02/25 13:15:34
60097558	0	1.00	CFP	SS.71P	CONFIG	SS.71P		88877		FRN0411	ICFGPRC	2021/07/25 13:07:44



# iLogging for Sales Orders: Configuration segment values

- Identify configuration **segments** to change-track
- Standard and Working, alpha and numeric segments supported
- Identification done in Segment Master:

FRN0411 SEGMENT MASTER MAINTENANCE 2/25/21 13:39:16

CHANGE

Segment name	Length	Type	Picture	WS	SA	Maint date	F
SS_BATCH	2	N	XX.			1/07/13	
Description _____ Regenerate cust prod (Y/N)							
iSchedule code (B,P,Y,N) _____ iSchedule tot (Y,N) _____ View Log Y Format							
Cross ref1 _____ Cross ref2 _____							
SS_BILL	15			Y		10/01/10	
Description _____ Regenerate cust prod (Y/N)							
iSchedule code (B,P,Y,N) _____ iSchedule tot (Y,N) _____ View Log Format							
Cross ref1 _____ Cross ref2 _____							
SS_BLANKME	15			Y		6/27/11	
Description _____ Regenerate cust prod (Y/N)							
iSchedule code (B,P,Y,N) _____ iSchedule tot (Y,N) _____ View Log Format							
Cross ref1 _____ Cross ref2 _____							

SM4 Segment SS\_BATCH Mode CHG  
F3=Exit F5=SA segments F6=Fold/unfold F10=Menu Bar

SM40 Segment  
master:

New Log field

Segment Mai Data Layer Co Data Layer Co Data Layer Cr Data Layer Co

Master Segment Maintenance

Sequence .00 Length 15

Segment OE.WDTH Type

Description Picture

Working Segment

Smart Part Viewable

iSchedule Codes Add to Totals

Logging Cost Priority 0

Save Changes Cancel Sales Analysis 0

Search Segment Master

Priority

Cross ref1 Cross ref2

Positional

PCMWB Segments perspective  
Segment Master tab  
New Logging checkbox

Length	Type	Picture
15		
15		
15		

# Configuration segment values

## Worthy of note

- Segment value change tracking and logging is NOT-trigger based
  - Wired into configuration engine
  - Only setup required is Segment Master “Logging” flag
  - Changes recorded when configuration is [Finished]
- In the log file (OALP):
  - File name is “CFP” for standard segment, “WFP” for working segment
  - Category is always “CONFIG”
  - Field will be the first 10 characters of segment name
  - Field Description will be the full 15 character segment name

# Demo:

## Segment-value tracking

- Show segment name selected for Log
  - SSHEIGHT SSLENGTH SSWIDTH
- Show (re)configure
  - SS.PCM uses SS.COLOR
- Show log entry for selected segment

# Example:

## Select segment to track

- Use SM40, or PCMWB

```

FRN0411                SEGMENT MASTER MAINTENANCE                2/25/21
                                                                15:43:24
                                                                CHANGE
Segment name      Length Type Picture      WS SA Maint date  F
SSHEIGHT         6      N  XXXX.XX
Description
iSchedule code (B,P,Y,N)  iSchedule tot (Y,N)  View  Log Y  Format
Cross ref1          Cross ref2
SSHEIGHT 01         6      N  VVVV VV                6/25/19
  
```

- Changes take effect immediately!

# Example: (re)configure sales order detail

**Product Configurator**

Customer: 100000 MILLER PRODUCTS      Order: 60097558    Line: 4

Product:     Quantity:     Price: .00    Extd: .00

[expand all](#)

[CAD and user exit prod](#)

TAG2-LOC

Return ODEXT\$

Return order number

Date \*

HEIGHT \*

LENGTH \*

SS-WIDTH \*

HEIGHT \*

LENGTH \*

SS-WIDTH \*



Finish

Complete

# Example:

## Segment changes instantly logged

Sales Order Inquiry > Search > Sales Order Detail  
Order action menu: 8. Sales order Logs

### Sales Order Activity Logging

Order Number From:  Order Number To:  Changed By:  From Date:  To Date:

Item Number:  Category:  File:  Field:  Hide System Activity:

### Sales Order Logs

Order	Suffix	Item	File	Field	Category	Field Description	Change Description	Before	After	Changed By	Program	Date/Time
60097558	0	4.00	OHP	OHORD#	SYSTEM		Line Item processed by WO10			FRN0411	WO10OAL	2021/02/25 15:48:10
60097558	0	0.00	OHP	OHORD#	SYSTEM		Processed			FRN0411	OEPR	2021/02/25 15:48:10
60097558	0	3.00	OHP	OHORD#	SYSTEM		Line Item processed by WO10			FRN0411	WO10OAL	2021/02/25 15:48:10
60097558	0	1.00	OHP	OHORD#	SYSTEM		Line Item processed by WO10			FRN0411	WO10OAL	2021/02/25 15:48:10
60097558	0	2.00	OHP	OHORD#	SYSTEM		Line Item processed by WO10			FRN0411	WO10OAL	2021/02/25 15:48:10
60097558	0	0.00	OHP	OHORD#	SYSTEM		Order sent to OEPR			FRN0411	PRO4FNOC	2021/02/25 15:48:10
60097558	0	0.00	OHP	OHORD#	SYSTEM		Order processing by UI Order Cmpl			FRN0411	PRO4FNOC	2021/02/25 15:48:10
60097558	0	4.00	CFP	SSWIDTH	CONFIG	SSWIDTH		23.50000	26.00000	FRN0411	ICFGPRC	2021/02/25 15:47:06
60097558	0	4.00	CFP	SSELENGTH	CONFIG	SSELENGTH		47.50000	42.00000	FRN0411	ICFGPRC	2021/02/25 15:47:06
60097558	0	4.00	CFP	SSHEIGHT	CONFIG	SSHEIGHT		36.00000	38.00000	FRN0411	ICFGPRC	2021/02/25 15:47:06

← User [Completed]

3 segment changes here

# iLogging for Sales orders: Availability

- iLogging for Sales Orders is **available in Frontier 4.1.0.**
  - iLogging for Sales Orders will require an addendum
    - Requires a license key (**1FR41II** Frontier 4.1 iLogging: covers both Master Files and Sales orders)
- Prior releases, please request retrofit quotation
  - You must be on IBM i release 7.1 or higher

# Q&A