

EUC 2019 Training Schedule

SCOTTSDALE PLAZA RESORT

SCOTTSDALE, ARIZONA

APRIL 7-10, 2019

Learning/Reviewing New and Existing Features

8:00 – 9:00 a.m.	<ul style="list-style-type: none">• Kits and Assemblies pg. 2
9:15 – 10:15 a.m.	<ul style="list-style-type: none">• Stock Preallocation pg. 12• More New Features pg. 15
10:30 – 11:30 a.m.	<ul style="list-style-type: none">• Location: Racks and Tickets pg. 19• Die Correction pg. 21• Master Workorders pg. 27
11:30 – 12:30	<ul style="list-style-type: none">• Lunch
12:30 – 1:20 p.m.	<ul style="list-style-type: none">• Capacity Planning pg. 31
1:30 – 2:00 p.m.	<ul style="list-style-type: none">• Q & A pg. 34

8:00 – 9:00 a.m.

Kits and Assemblies

Main Features of EPICS Kits and Assemblies Processing

- Allow kits or multi-shape assemblies to be entered as normal EPICS sales order items
- Display and price a kit/assembly as a single product on customer paperwork (Ack, Invoice, etc.)
- ***Seamlessly track production of all components that produce the finished products***
- Keep inventory of all components – both extruded parts and accessories/hardware

What Are Kits and Assemblies?

- A two-piece extrusion packaged together as a single part
- One or more extruded parts packaged in a box with fasteners and other hardware
- A fully fabricated and assembled product sold as a single part
- Virtually anything you can load on a truck and bill by the piece
- A “kit” is an unassembled collection of components. An “assembly” is an assembled collection of components. There is no difference in how EPICS handles them.
- All components of kits and assemblies are pulled from stock
- Beginning with V9.10, the stock components can be created for specific kit/assembly orders and preallocated for their use

What Constitutes a Kit or Assembly?

- Any number of extruded parts
- Any number of non-extruded accessories (fasteners, hardware, etc.)
- A routing that includes one or more kitting or assembly steps

Kits and Assemblies Are Simply Parts

Creating Orders for Kits or Assemblies

A kit or an assembly is simply a part. Order Entry handles this as they would any other part.

Order Entry - New

Save New Sales Order

1 Properties 2 Other 3 User Fields 4 Notes 5 Links 6 Changes

Sales Order for Anthony England LLC

Bill To Customer: 00619 Office: 001 Entered By: JOHN SO Number: 13281 #

Customer PO: 93021 Type: NORMAL SO Order Date: 4/3/2019 3314 Total Pounds

Item	Part	Quantity	Unit	Pounds	Die	Alloy	Temper	Finish	Length	Routing
1	MILL LADDER 10'	75	Pieces	1449	ASSEMBLY	6063	T5	000	10'0"	LADDERS
2	MILL LADDER 8'	120	Pieces	1865	ASSEMBLY	6063	T5	000	8'0"	LADDERS

The customer sees the assembly simply as a part as well.

WorldWide Extrusions of Texas SALES ACKNOWLEDGEMENT
 111 Farmersville Pkwy
 Suite 100
 Farmersville, TX 75442
 (972) 782-7282

OUR ORDER NUMBER	CUSTOMER PO
13274	92932

SOLD TO	Anthony England LLC 1451 Coventry Court Gulfport, MS 39501	SHIP TO	SAME	DATE ORDERED	3/29/2019	PROMISE WEEK OF	5/1/2019
			CUSTOMER NUMBER	00619	PHONE NUMBER	203-562-6167	
	PAYMENT TERMS		Net 30	SALSMAN	Andy C. Dearmond		

ITEM NO.	DIENUMBER	CUSTOMER PART NO.	DESCRIPTION	ALLOY/TEMPER	LENGTH	FINISH	PIECES	POUNDS	PRICE
1	ASSEMBLY	MILL LADDER 10'	10' MILL FINISH STRAIGHT LADDER	6063/T5	10'0"	Mill Finish	150	2,898	58.500/Pc
2	ASSEMBLY	MILL LADDER 8'	8' MILL FINISH STRAIGHT LADDER	6063/T5	8'0"	Mill Finish	220	3,420	46.750/Pc

Posting Production for Kits or Assemblies

When posting production, simply post the number of kits produced.

EPICS displays the components required to produce the kit and automatically deducts the quantities used.

The screenshot displays the 'Ladder Assembly Advanced Data Collection' software interface. The window title is 'Ladder Assembly Advanced Data Collection'. The interface is divided into several sections:

- Production Shift:**
 - Department: LADDERS
 - Machine: LADDER 1
 - Supervisor: JASON
 - Crew Size: 2
 - Date: 4/12/2019
 - Shift: 1
 - Operator: SCOTT
 - Scheduled Hours: 8
- Job Info - Sales Order 13274 Item 1:**
 - SO - Item: 13274 | 1
 - Customer: Anthony England LLC
 - Die: ASSEMBLY | Part: MILL LADDER 10"
 - Order Len: 10'0" | Extrude Len: 10'0"
 - Alloy/Temper: 6063 | T5 | Finish: Mill Finish
- Routing Table:**

Routing	Pieces	Pounds	Scrap Pc	Scrap Lb	Rem Pc	Rem Lb
ORDER	150	2898	0	0	0	0
LADDERS	150	2898	0	0	0	0
PACK-FAR	0	0	0	0	150	1500
SHIP-FAR	0	0	0	0	150	1500
INVOICE	0	0	0	0	150	1500
- Components Table:**

Part Number	Pc/Kit	Rack In	Pc Used	Pc Required	Pc Filled	Stock Pc
LADDER FOOT BLK	2		300	300	300	1760
MILL LDR RAIL 10"	2		300	300	300	4
MILL LDR RUNG 15"	10		1500	1500	1500	340
- Post Good Pieces and Scrap Pieces Table:**

Order	Item	Lot	Rack Out	Pieces	Lb	Code	Charge To	Comp	Item Fini
13274	1	1A11	276	150	2898	0		<input checked="" type="checkbox"/>	000

“Components” Tab of the Customer Part Numbers Screen

Record the various parts that make up the kit/assembly

The screenshot shows the 'Customer Part Numbers' application window. The 'Components (4)' tab is selected, and the 'Part Identification' section shows Part: LS100, Part Cust Number: 10000, and Category: ASSEMBLY. The 'Components' table lists the following parts:

Component Part	Pieces per Assembly	Added in Department
LS100 BODY	1	ASSY-BLU
LS100 BOTTOM CAP	1	ASSY-BLU
LS100 LASER ASSEMBLY	1	ASSY-BLU

Two callout boxes provide additional information:

Each Kit/Assembly must have a category “KIT” or “Assembly”.
A “Components” tab will be available for each kit and assembly.

The Components Tab
Kits or Assemblies are made up of components.
This assembly is a light saber, made up of four components.
The components can consist of extruded shapes as well as accessory parts.
This assembly has one extruded component (Body) and 3 accessory parts.

Kits and Assemblies Setup and Management

There are three main steps to follow in preparing to produce kits or assemblies in EPICS.

1. Create Departments for kitting and/or assembly
2. Create a Part record for each component
 - Components are the parts that make up the kit. These may be extrusions or other material such as screws or plastic caps used in creating the kit.
3. Create a part record for each kit or assembly
 - This part will include a list of components needed to produce the kit or assembly.

First, create departments for kitting and assembling

Create a Department record for each kitting and/or assembly area.

Also create a Machine record for each new department

Use the appropriate Category name...

ASSEMBLY or KITTING

The screenshot shows the 'Departments and Machines' window in EPICS. The window title is 'Departments and Machines' and it has a menu bar with 'View', '1 of 1', and icons for 'Find', 'New', 'Edit', and 'Delete'. Below the menu bar are tabs for 'Department and Machines', 'History', 'Chart', 'Permissions', and 'Changes'. The main content area is titled 'Department Identification' and contains the following fields:

- Department: **LADDERS**
- Long Name: **Ladder Assembly**
- Category: **ASSEMBLY** (dropdown)
- Plant: **FAR** (dropdown)

Below the identification fields are three main sections:

- Posting Requirements:**
 - Select Required-Input Items:
 - Good Pieces (calculate from Pounds)
 - Good Pounds (calculate from Pcs)
 - Scrap Pieces (calculate from Pounds)
 - Scrap Pounds (calculate from Pcs)
 - Downtime
 - Start/Stop Time
 - Crew Size
- Rack Settings:**
 - Pull from Racks (recommended for all downstream production departments)
 - Allow mixed Finish Codes in the same rack for...
 - Any single finish type
 - Multiple finish types
 - Allow multiple items or racks in each production posting
 - Output to same rack (Use Rack-In number as Rack-Out number)
 - Release rack (Use virtual rack number in following department)
- Lead Times:**
 - Days Normal: **3**
 - DaysRush: **1**

Production Shift Configuration

Shift	Start Time	Day	Hours
1	7:00 AM	Today	8
2	3:00 PM	Today	8

Machines for Department LADDERS Category ASSEMBLY

Number	Name	Install Date	Hr/Day	Rate/Hour	Rate Unit	Inactive
1	Ladder 1		16	7.5	Pieces	<input type="checkbox"/>

Department Groups

Second, create a part record for each component

Using the Customer Part Number screen, create a record for each extruded component.

- Select the category CUSTOMER PART.
- Check the “Stock Part/Component” check box.
- Complete remaining fields in the usual manner with information necessary to produce the extrusion.

The screenshot shows a software window titled "Part MILL LDR RAIL 10' for Anthony England LLC". The interface includes a menu bar with "View", "1 of 1", and navigation icons. Below the menu is a toolbar with "Find", "New", "Edit", and "Delete" options. A tabbed interface shows "Properties" selected, with sub-tabs for "User Fields", "Prices", "Stock", "Drawing Files", "Links", "Dept Specs", and "Changes (2)".

The main content area is divided into several sections:

- Part Identification:** Part: MILL LDR RAIL 10', Part Cust Number: 00619, Category: CUSTOMER PART, Inactive:
- Production Properties:** Die: 03187, Alloy: 6063, Alloy Type: P, Temper: T5, Length: 10'0", Cut Tol: + 0-1/32" - 0-1/32", Ext Length: [empty], Pcs / Ext Len: [empty], Finish: 000, Routing: CUT+DEBUR (highlighted with a red circle), Stock or Component Part
- Other Properties:** Customer Group: [empty], Description: 10' Ladder Rail Mill Finish, Product Code: [empty], Plant: FAR, Pack Code: [empty], Cert Code: [empty], Spec Code 1: [empty], Spec Code 2: [empty], Spec Code 3: [empty]
- Production Limitations for this Part:** Workorder Range: Min [empty] Max [empty] Unit [empty], Pieces per Bundle: Min [empty] Max [empty], Shipping Tolerance: Min [empty] Max [empty] Unit [empty]
- Die Information (View Only):** Die Type: S, Press: 2, Print Wt: 0.719, Actual Wt: 0.751, Full Perim: 11.596, Finish Perim: 11.596
- Original Quote Info:** Source Quote Number: [empty], Line: [empty]

At the bottom, there are "Notes" and "Production Specs" icons, and a status bar indicating "Saved Changes to Part 00619".

Use the “Stock” tab to optionally specify min/max stock levels, reorder points, and default stock location
Beginning with EPICS V9.10, a stock part can have a different routing that is used when creating a stock replacement order for that part

- For example, when the customer orders this part directly, the routing needs to end with PACK/SHIP/INVOICE
- But for stock replacement jobs, the routing only needs to end with STOCK

Part MILL LDR RAIL 10' for Anthony England LLC

View 1 of 1 Find New Edit Delete

Properties User Fields Prices **Stock** Drawing Files Links Dept Specs Changes (2)

Part Identification

Part: MILL LDR RAIL 10' Part Cust Number: 00619 Category: CUSTOMER PART Inactive

Inventory Control

Reorder Point: 20 Pcs Minimum Quantity: 10 Pcs
Reorder Quantity: 100 Pcs Maximum Quantity: 200 Pcs
Stock Location: LDR-022
Stock Routing: CUT+DEBUR TO STK

Source Part

A source part may be used to fill this part from stock
Part:
Part Cust Number:

Current Stock

Stock Pieces: 4 Stock Pounds: 29

Ticket Number	Stock Number	Length	Finish	Pieces	Pounds	Part	Part Cust Number	Date Packed
15317	15317	100"	000	4	29	MILL LDR RAIL 10'	00619	03/29/2019

Notes Production Specs

Saved Changes to Part 00619

Create a record for each Accessory (non-extrusion) component

- Select the category ACCESSORY
- Check the “Stock Part/Component” check box.
- Use the DieNum “ACCESSORY”
- Other information is optional

Create Routings for Kits and/or Assemblies

- Include the KITTING (or ASSEMBLY) department in the routing.

Third, create the kit or assembly part

Create the kit or assembly part record

- Select the KIT or ASSEMBLY category.
- Use the DieNum “KIT” or “ASSEMBLY”
- Choose the appropriate routing for the kit or assembly
- It is not necessary to select “Stock Part/Component”. Select this only if you plan to stock the kit and want to use the Create Orders for Stock Replacement screen to track inventory levels of the kit.

Add the required components to the kit/assembly

Use the “Estimate Weight Total” button to get the weight of all included components so that packing and shipping will have an accurate weight per package

“Total Extruded Weight” is the expected weight of extruded components and can be used to price the aluminum in the kit at the market rate (e.g. LME or Midwest) if desired

Price the kit or assembly

Use the “Fixed” pricing behavior if the kit/assembly is priced at a fixed cost per kit

or...

Choose “Default Behavior” if you want to use the System Base Price for metal (using the Extruded Weight of the kit/assembly on the “Components” tab) and add this to any Part Prices you have created.

Processing Kit/Assembly Sales Orders

- Kit/Assembly orders are entered and posted just like any other sales order
- All components must be in stock before kitting/assembly can begin
 - If all components (extruded parts and accessories) are available and we are ready to produce the order, we can immediately fill components from stock and deliver to kit/assembly department
 - If all components are available now but we are not yet ready to produce the order, components can be immediately preallocated to the order and delivered to production later (new in V9.10)
 - If all components are not available, we can use the “Create Orders for Stock Replacement” screen to create internal sales orders to generate the extruded components and accessory purchase orders to replenish the accessories in stock
 - In V9.10, extruded components created this way can be automatically preallocated to the destination kit/assembly order
- Component stock fill/pull operations can be accessed directly from the production screen for the Kit/Assembly department

Create stock replacement order for extruded components

- Use the “Extruded Parts” tab to show all stock parts that are or will be below minimum stock levels and create consolidated replacement jobs
- Or, beginning with V9.10, use the “Extruded Kit/Assembly Components” tab to create stock replacement orders that will be dedicated to specific kit/assembly orders and keep up with their status directly
 - Using this method, stock replacement jobs will be created for the configured “in-house” account using the specified stock routing

Create Orders for Stock Replacement

Extruded Parts Accessory Parts **Extruded Kit/Assembly Components**

Create Extrusion Order for Components of Selected Kit/Assembly Order

Sales Order: NEXT # Bill To: WORLDWIDE Office: 001
Order Date: 3/29/2019 Ship To: WORLDWIDE Type: REPLACEMENT
Ship/Stock Date: 4/24/2019 Customer PO:

Kit/Assembly Order Selection

SO	Item	Customer	Kit/Assembly	Ship Date	Component	Pieces
<input type="checkbox"/>	13251	1 10000	WINDOW KIT	05/13/2019	WINDOW HORIZONTAL	75
<input type="checkbox"/>	13251	1 10000	WINDOW KIT	05/13/2019	WINDOW VERTICAL	50
<input checked="" type="checkbox"/>	13274	1 00619	MILL LADDER 10'	05/01/2019	MILL LDR RAIL 10'	300
<input checked="" type="checkbox"/>	13274	1 00619	MILL LADDER 10'	05/01/2019	MILL LDR RUNG 15"	1500
<input checked="" type="checkbox"/>	13274	2 00619	MILL LADDER 8'	05/01/2019	MILL LDR RAIL 8'	440
<input checked="" type="checkbox"/>	13274	2 00619	MILL LADDER 8'	05/01/2019	MILL LDR RUNG 15"	1760

[1765] Import Completed

Sales order creation is complete. Sales Order 13275 with 4 sales order items was successfully added to the order entry table. Do you want to open the Order Entry screen to review, edit, and post this new sales order?

Yes No

View component status for each kit/assembly

The screenshot shows a software window titled "Sales Order Item for Anthony England LLC". The interface includes a navigation bar with tabs: Properties, Other, User Fields, Prices, Departments, History, Production Detail, **Components**, Racks, Pack/Ship/Invoice, and Links. The "Components" tab is active and highlighted.

Sales Order Identification

Sales Order	Item	Bill-To	Ship-To	Order Type	Office Code	Order Status	Item Status
13274	1	00619	00619	NORMAL SO	001	B	B

Basic Information

Die	Copy	Alloy	Type	Temper	Finish	Ordered Length	Ordered Qty	Unit
ASSEMBLY	0	6063	P	T5	000	10'0"	150	PIECES
Part	Part Cust Number	Required Date	Routing					
MILL LADDER 10'	00619	5/1/2019	LADDERS					

Kit/Assembly Components

Part	Pc Needed	Pc Pulled	In Stock
LADDER FOOT BLK	300	0	2500
MILL LDR RAIL 10'	300	0	
MILL LDR RUNG 15'	1500	0	

Component Extrusion Status

SO	Item	Part	Pc Ordered	Pc Extruded	Pc Stocked
13275	1	MILL LDR RAIL 10'	300	0	0
13275	2	MILL LDR RUNG 15'	1500	0	0

At the bottom of the window, there are icons and text for "Notes", "Edit SO Header", "Fill from Stock", and "Split Item".

- Because the “Extruded Kit/Assembly Components” tab was used to create the stock replacement orders, all pieces extruded for these components will be automatically preallocated to this order
 - You are still able to pull any free (not preallocated) stock into this job as well if necessary
- Accessory parts can also be preallocated manually (more about this later)

Schedule and Produce Extruded Components

- Stock replacement orders for extruded components are scheduled and produced just like any other order
- If the replacement jobs were created using the above method, all pieces will be automatically preallocated to the parent kit/assembly order when each stock ticket is printed and filled/pulled when you are ready for kitting/assembly

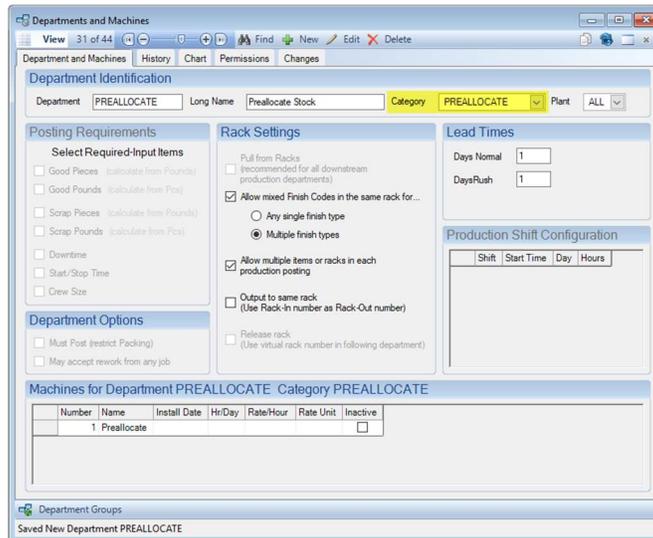
9:15 – 10:15 am

Stock Preallocation

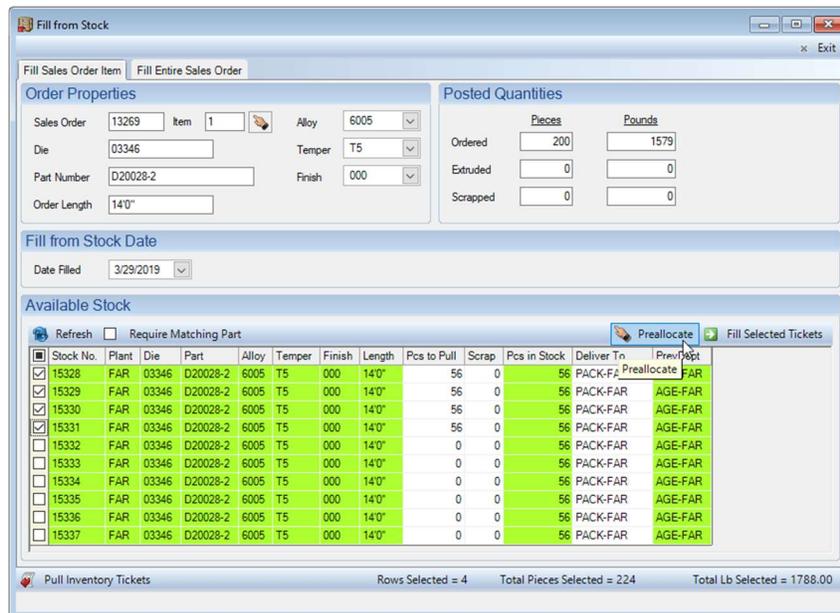
This is an improvement to existing Stock features: This will improve functionality for Kits and Assemblies and can be used for the Pull from Stock operation. Stock can now be preallocated to any item at any point prior to filling from stock.

Procedure:

1. Create a Preallocate Department
 - a. It is not necessary to add this department to a routing.



2. Use the Fill From Stock screen to Preallocate metal.



3. Preallocation will be reflected on the SO Item screen.
 - a. Departments Tab

Sales Order Identification

Sales Order: 13269, Item: 1, Bill-To: 00619, Ship-To: 00619, Order Type: NORMAL SO, Office Code: 001, Order Status: B, Item Status: B

Basic Information

Die: 03346, Copy: 201, Alloy: 6005, Type: P, Temper: T5, Finish: 000, Ordered Length: 14'0", Ordered Qty: 200, Unit: PIECES

Part: D20028-2, Part Cust Number: 00619, Required Date: 5/1/2019, Routing: MILL

Departments

Department	Plan Date	Rem Lb	Rem Pc	Complete	Run Dt	Run Lb	Run Pc	Run Ft	X	Scrap Lb	Scrap Pc	Run
ORDER		0	0		03/28/2019	1579	200	2800	1	0	0	(
PREALLOCATE		0	0	<input checked="" type="checkbox"/>	03/29/2019	1788	224	3136	1	0	0	(
EXTRUDE-FAR	04/25/2019	0	0	<input checked="" type="checkbox"/>		0	0	0	1	0	0	(
AGE-FAR	04/26/2019	0	0	<input checked="" type="checkbox"/>		0	0	0	1	0	0	(
PACK-FAR	04/30/2019	1580	200	<input type="checkbox"/>		0	0	0	1	0	0	(
SHIP-FAR	05/01/2019	1580	200	<input type="checkbox"/>		0	0	0	1	0	0	(
INVOICE	05/01/2019	1580	200	<input type="checkbox"/>		0	0	0	1	0	0	(

- b. History Tab

Sales Order Identification

Sales Order: 13269, Item: 1, Bill-To: 00619, Ship-To: 00619, Order Type: NORMAL SO, Office Code: 001, Order Status: B, Item Status: B

Basic Information

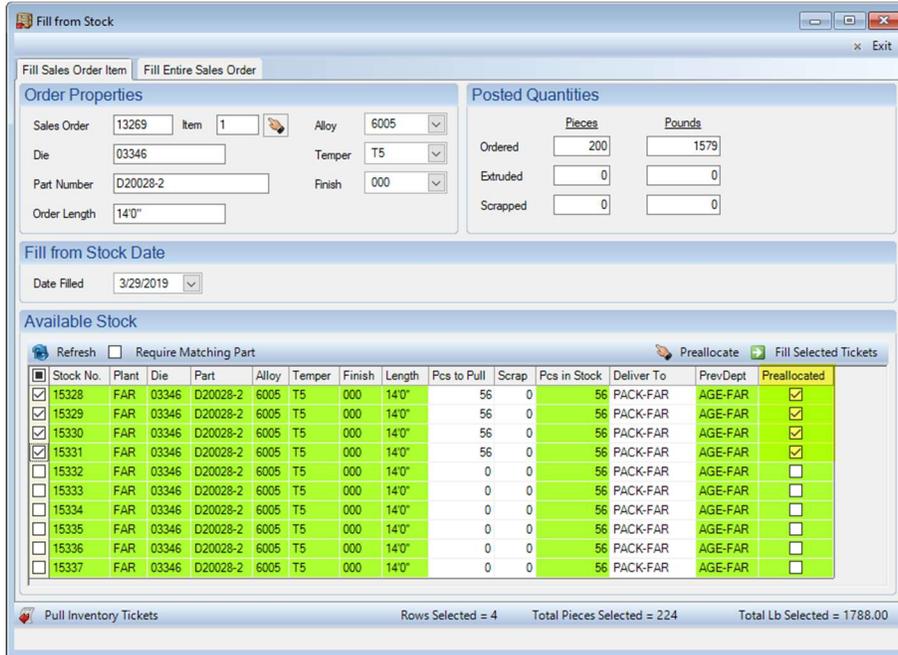
Die: 03346, Copy: 201, Alloy: 6005, Type: P, Temper: T5, Finish: 000, Ordered Length: 14'0", Ordered Qty: 200, Unit: PIECES

Part: D20028-2, Part Cust Number: 00619, Required Date: 5/1/2019, Routing: MILL

History

Date	Shift	Lot	Department	Machine	Pounds	Pieces	Hours	Scrap Lb	Scrap Pc	Seq	User
03/28/2019	1	*	ORDER	1	1596	200	0.00	0	0	1	JOHN
03/29/2019	1	*	PREALLOCATE	1	1788	224	0.00	0	0	100	JOHN

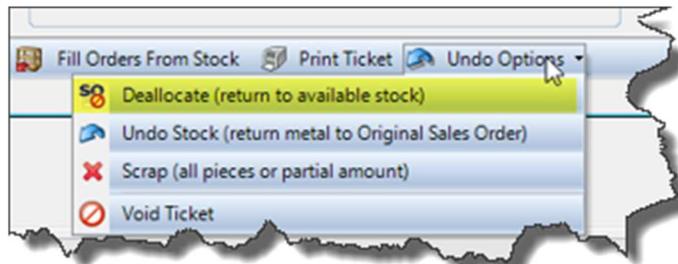
- Note that preallocated stock will not be available to other SO Items.
- When Filling from Stock, if metal has been preallocated, it will be indicated and prioritized.



- When the Fill and Pull process is complete, notice the SO Item now reflects both the preallocation and the Pull, and the backlogs are updated accordingly.

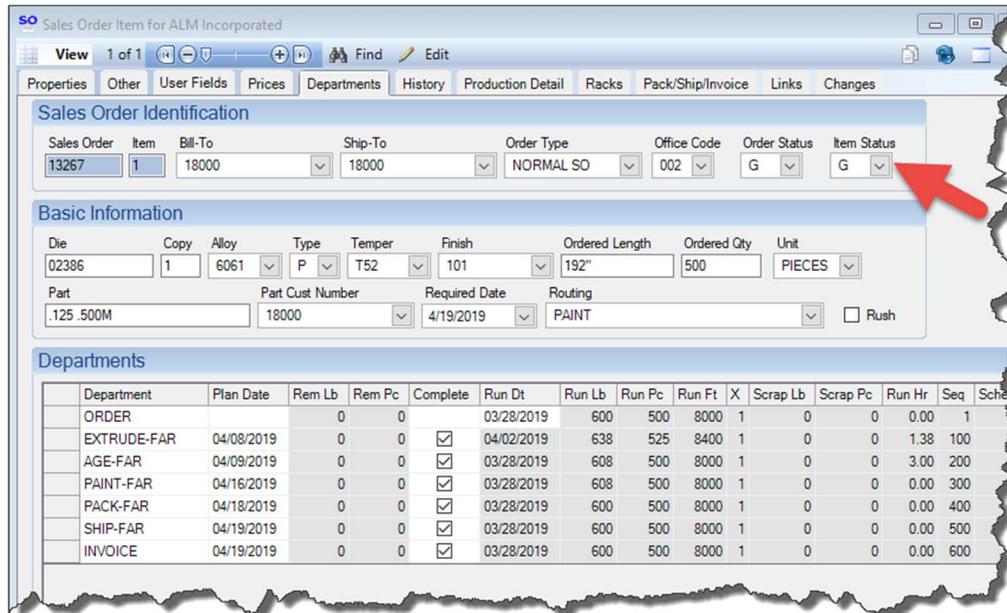
Departments						
	Department	Plan Date	Rem Lb	Rem Pc	Complete	Run Dt
	ORDER		0	0		03/28/2019
	PULLED		0	0	<input checked="" type="checkbox"/>	03/29/2019
	PREALLOCATE		0	0	<input checked="" type="checkbox"/>	03/29/2019
	EXTRUDE-FAR	04/25/2019	0	0	<input checked="" type="checkbox"/>	04/25/2019
	AGE-FAR	04/26/2019	0	0	<input checked="" type="checkbox"/>	04/26/2019
		04/26/2019	1580	200	<input type="checkbox"/>	

- If you need to deallocate metal, use the 'Undo Options' on the Maintain Stock Inventory screen.

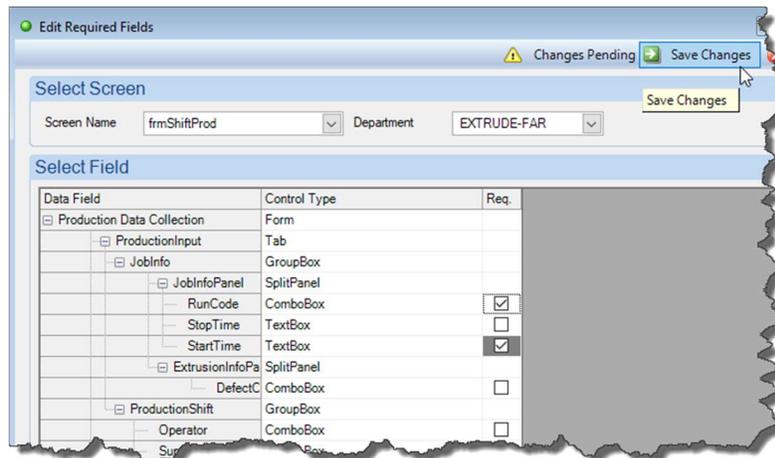


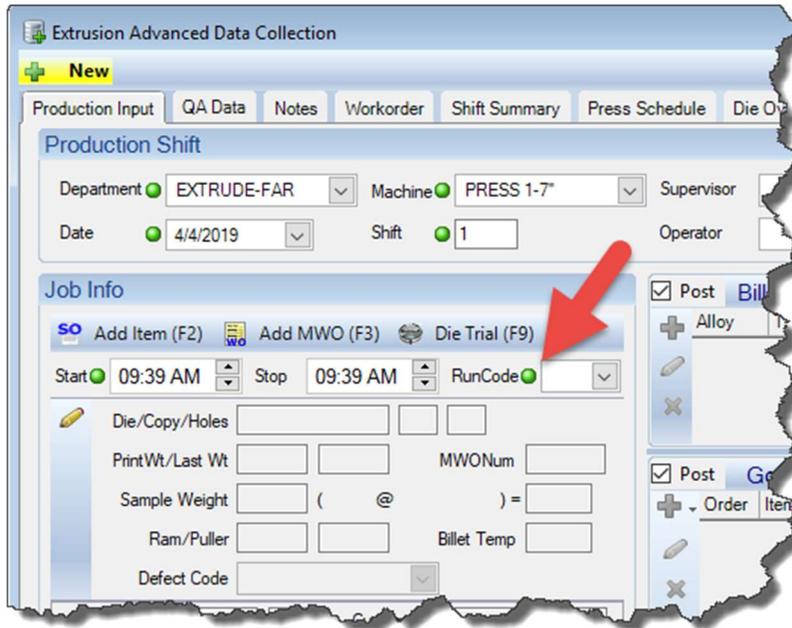
More New Features

1. Add a configuration setting (gInvoiceNoClosingActiveItems) to prevent the invoicing screen from closing any item that has remaining **tickets** or **racks**
 - Administrator>Configure>Invoicing
 - Default is 'NO'



2. Allow the selection of required fields on production screen to be department-specific
 - Administrator>Screen Design>Edit Required Fields
 - Select Screen Name 'frmShiftProd' and the desired Department
 - Default required fields will be greyed and they cannot be de-selected
 - Check the box in the 'Req.' column for desired fields
 - Save Changes



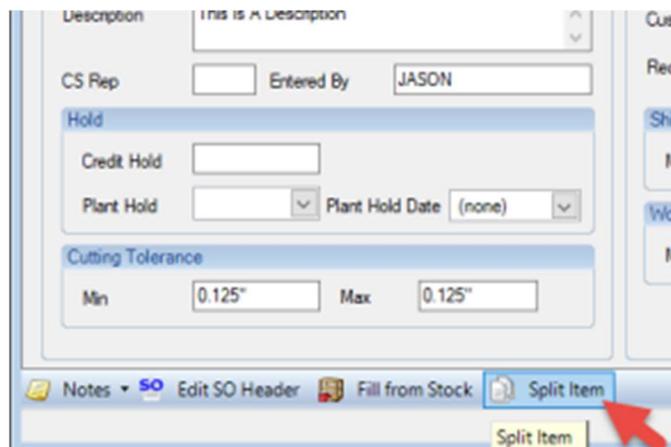


3. Add shipping tolerance (min, max, unit) to the customer part screen

Production Limitations for this Part					
Workorder Range	Min	<input type="text"/>	Max	<input type="text"/>	Unit <input type="text"/>
Pieces per Bundle	Min	<input type="text"/>	Max	<input type="text"/>	
Shipping Tolerance	Min	<input type="text"/>	Max	<input type="text"/>	Unit <input type="text"/>

- The tolerance hierarchy is now:
 - Order Entry
 - Customer Part Record
 - Customer Record
 - Ship Tol Lookup Table

4. Splitting existing items



Split SO Item

SO Item 14659-1

Original Lb: 1000 Ship Date: 12/30/2018

Remaining Lb: 250

Lb	Item #	Ship Date
250	1	12/30/2018
250	2	1/10/2019
250	3	2/8/2019
250	4	3/14/2019

Split Options

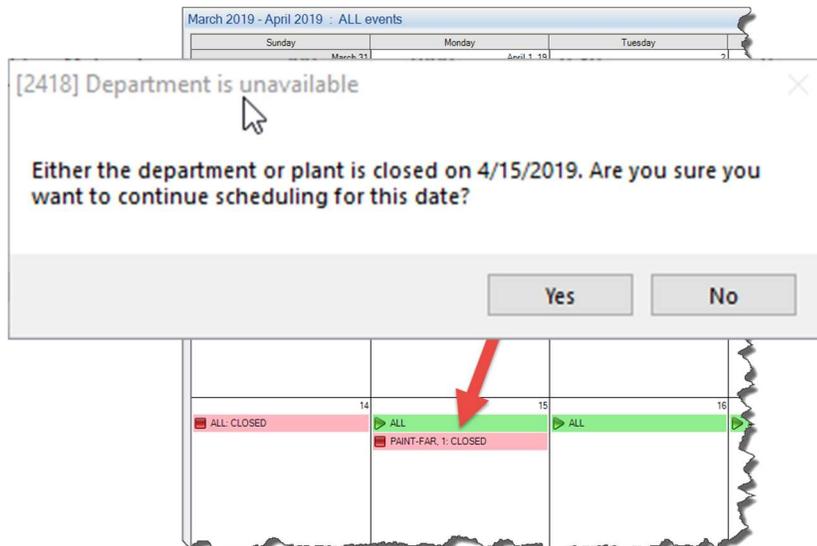
Do not post new items. Send to Order Entry screen.

Create new items as status 'A'

Create new items as status 'B'

- The newly created item(s) will appear either at Order Entry or on the SO screen, depending on your 'Split Options' selection.
- New items will appear accordingly on the backlog.
- The original item will have the remaining quantity adjusted accordingly.
- If the original item was on a schedule, it will remain on the schedule with the adjusted quantity.
- The workorder for the original item will now need to be recalculated to pick up the newly adjusted quantity.
- New items (split from the original) will not be on the schedule even if the previously existing item was on the schedule.
- New items will need to be scheduled and calculated.

5. Add a warning when scheduling an item for a date that the press, department, or plant is marked as 'closed'



6. Production Calendar Questions?

7. Change Log Additions

- Billet Receipts
- Configuration Screen
- Order Entry

8. New Configuration Settings Review

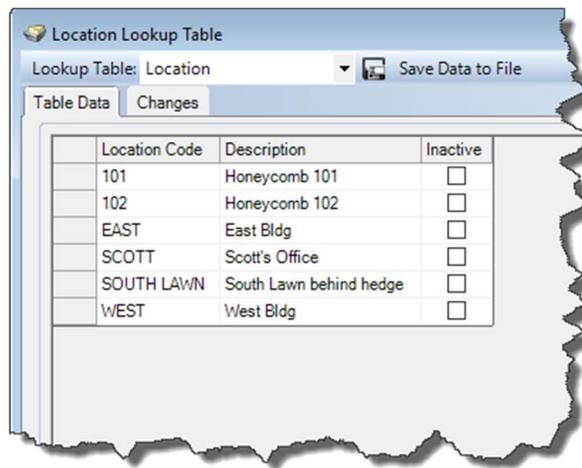
- gInvoiceNoClosingActiveItems
- gRackProdPcTol
- gSOItemMultiChangePassword
- gSOItemMultiChangeShowDetails
- gEnableTicketLocation
- gDefaultButtLength
- gDefaultFrontScrap
- gDefaultRearScrap

10:30 – 11:30 a.m.

Location: Racks and Tickets

A new location field has been added to the ticket (and stock inventory) table that is linked to the location lookup table.

- This requires that the new Packing Tickets configuration setting gEnableTicketLocation is set to YES (default is NO).
- The Lookup Table 'Location' will need to be populated with desired locations. *Note that this is separate from InvenLocation used for Physical Inventory.



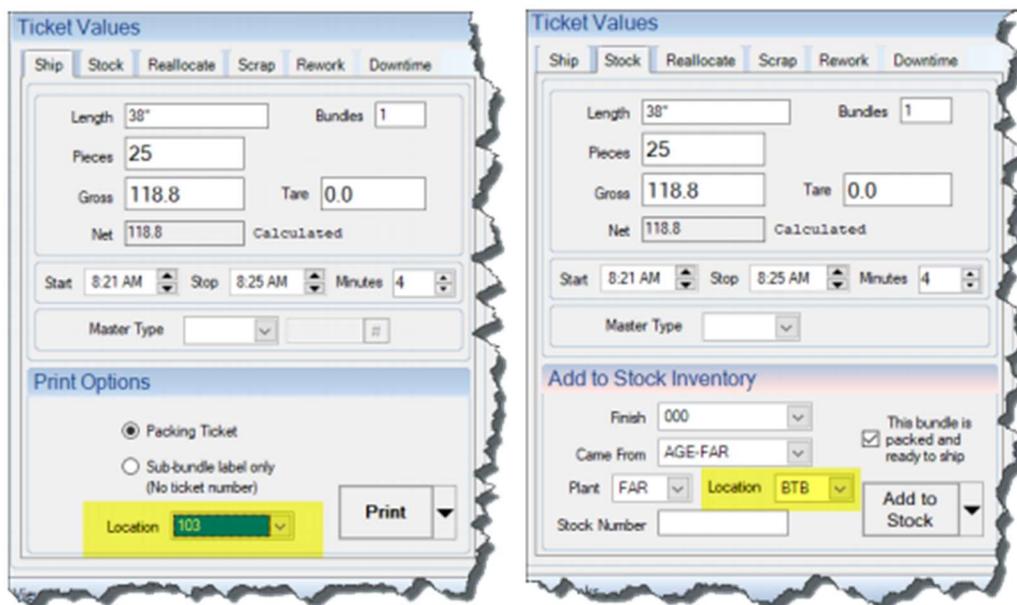
Location Lookup Table

Lookup Table: Location Save Data to File

Table Data Changes

Location Code	Description	Inactive
101	Honeycomb 101	<input type="checkbox"/>
102	Honeycomb 102	<input type="checkbox"/>
EAST	East Bldg	<input type="checkbox"/>
SCOTT	Scott's Office	<input type="checkbox"/>
SOUTH LAWN	South Lawn behind hedge	<input type="checkbox"/>
WEST	West Bldg	<input type="checkbox"/>

- Users will be able to select a location from the Location drop-down on the Print New Tickets screen.



Ticket Values

Ship Stock Reallocate Scrap Rework Downtime

Length 38" Bundles 1

Pieces 25

Gross 118.8 Tare 0.0

Net 118.8 Calculated

Start 8:21 AM Stop 8:25 AM Minutes 4

Master Type

Print Options

Packing Ticket

Sub-bundle label only (No ticket number)

Location 103 Print

Ticket Values

Ship Stock Reallocate Scrap Rework Downtime

Length 38" Bundles 1

Pieces 25

Gross 118.8 Tare 0.0

Net 118.8 Calculated

Start 8:21 AM Stop 8:25 AM Minutes 4

Master Type

Add to Stock Inventory

Finish 000

Came From AGE-FAR This bundle is packed and ready to ship

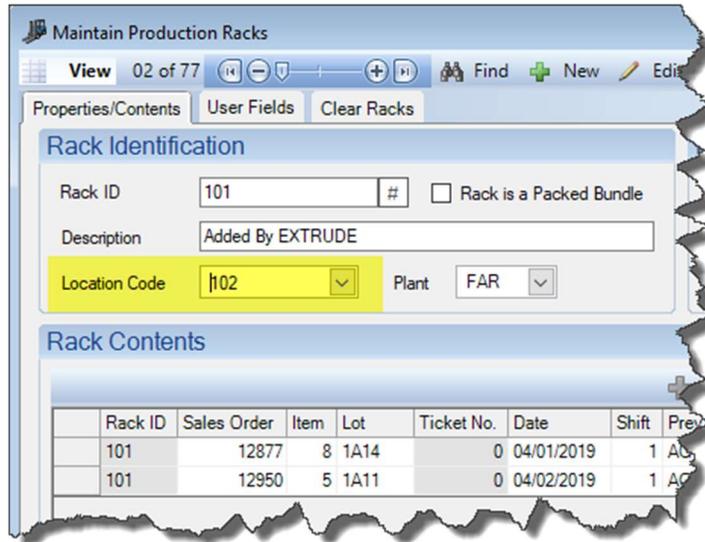
Plant FAR Location BTB Add to Stock

Stock Number

- The location will be visible on the Maintain Ticket screen, the Maintain Stock Inventory screen, and the Pull from Stock screen.

Locations on Racks

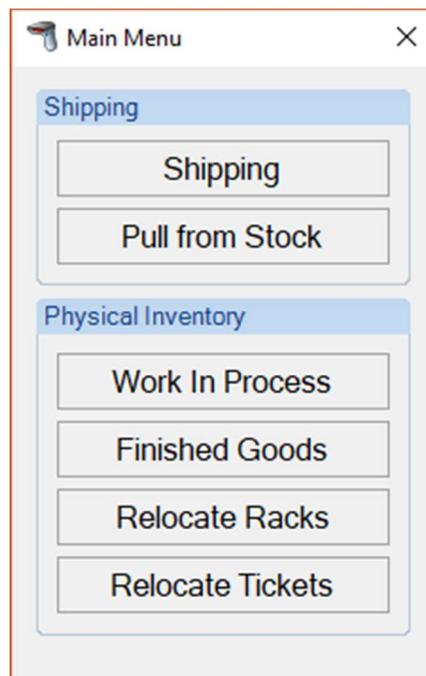
- Locations can be manually set for Rack records



Updating the Location field

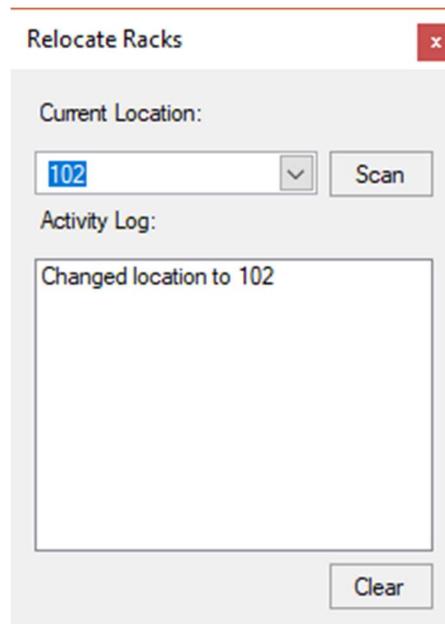
- This can be done manually by editing the Ticket or Rack record
- This can be done with a scanner

EPICS Mobile App Menu and EPICS RDP Mobile Menu



Two Ways to Update Location by Scanning

1. Scan the barcoded location code first, then scan the tickets/racks number to update location.



The screenshot shows a software dialog box titled "Relocate Racks". It features a "Current Location:" label above a dropdown menu that currently displays "102". To the right of the dropdown is a "Scan" button. Below this is an "Activity Log:" label above a text area that contains the message "Changed location to 102". At the bottom right of the dialog is a "Clear" button.

2. Select the desired location from the dropdown, then scan the tickets/racks to update the location code.

Die Correction

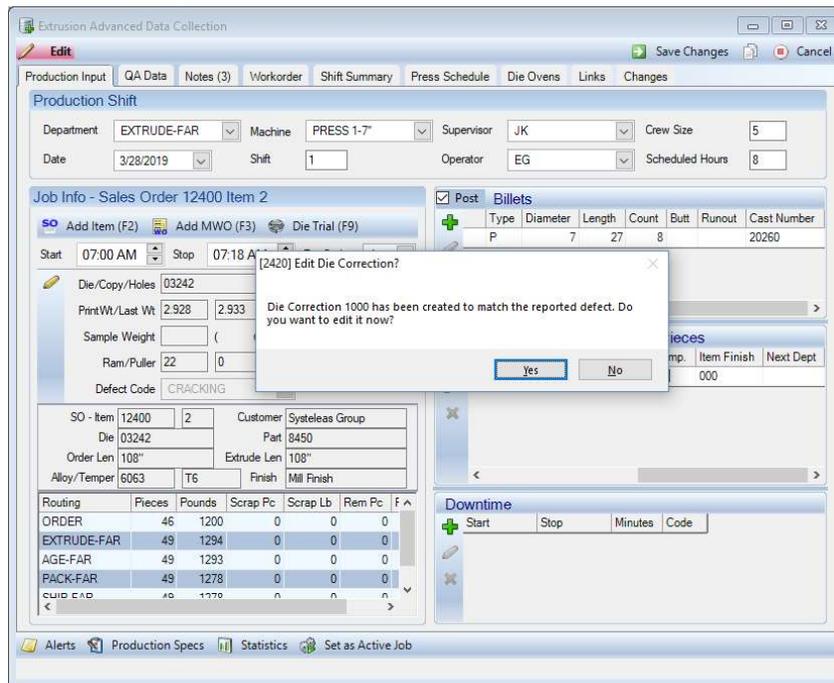
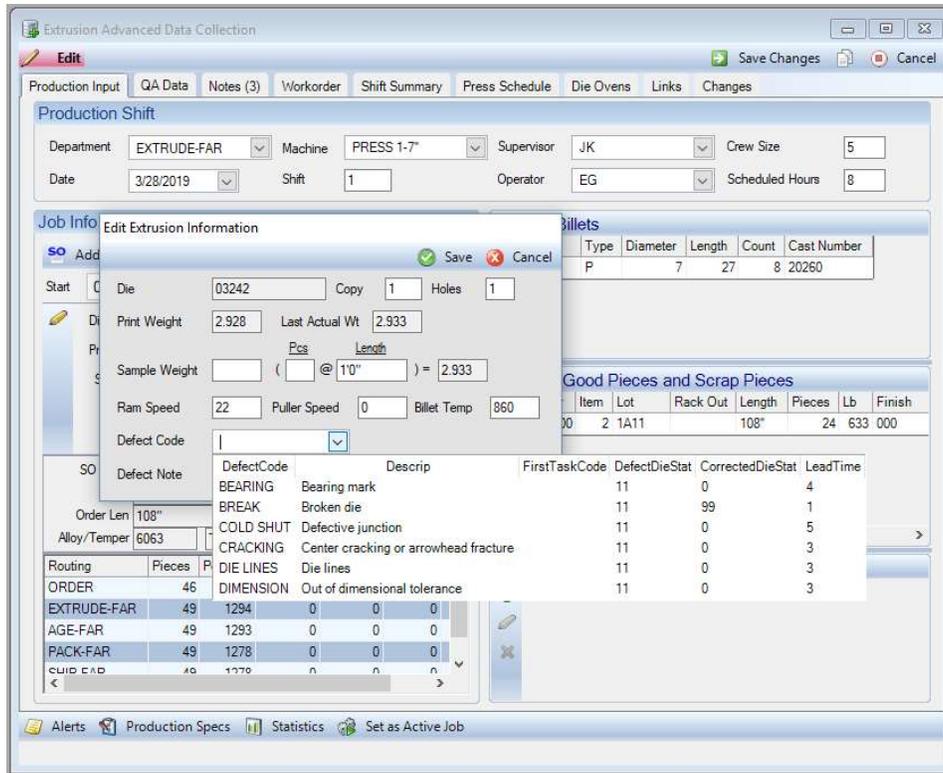
The Die Correction Module will allow you to do the following:

- Identify Die Copies needing repair
 - This can be done from the Post Production screen or from the Die Copy screen
- Allow input of repair information
- Display a list of all copies flagged for repair
- Use custom repair codes to record work done
- Record notes and comments related to repairs
- Make custom User Fields available to manage non-standard data
- Keep a history of all repairs

1. Creating a Die Correction

Method # 1

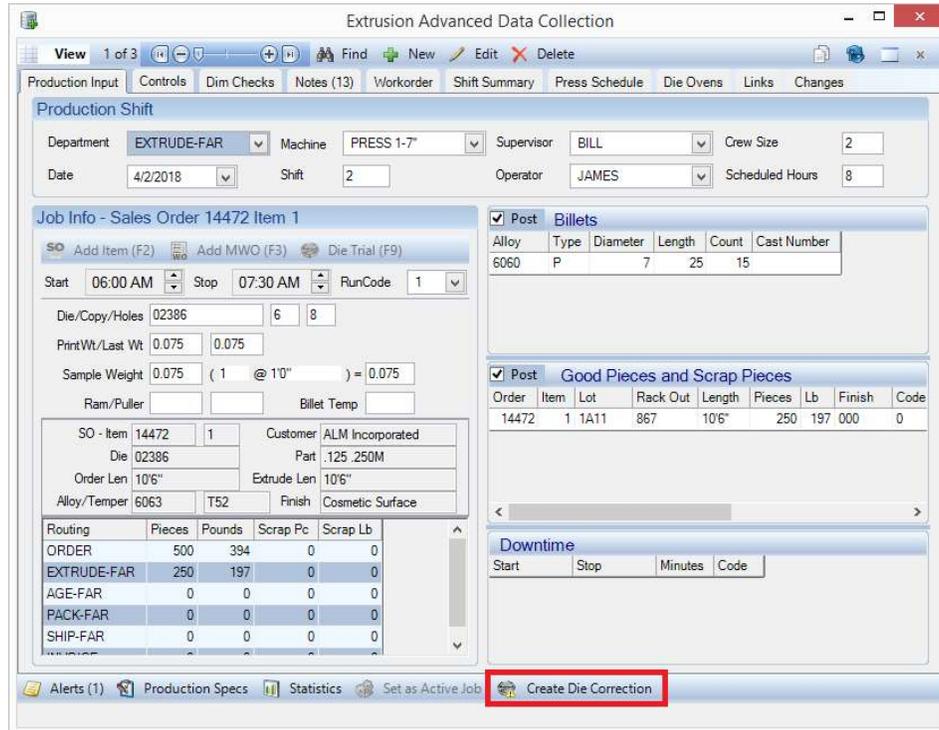
- Select a custom 'Defect Code' when entering Die information on the Post Production screen for Extrusion.
 - You can also add a note with any other relevant information



- This generates a Die Correction, as seen above, that can then be edited for further information.

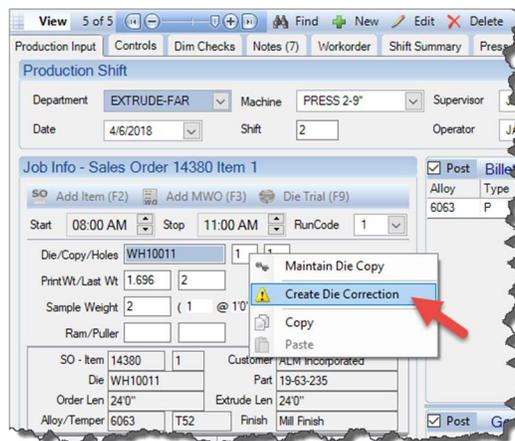
Method # 2

- Click on the 'Create Die Correction button' on the Post Production screen and fill out the correction information.



Method # 3

- Right-click on the Die Copy Number from just about anywhere in EPICS and select the option to 'Create Die Correction'.



Method # 4

- Open the Die Correction screen from the Die tab on the Ribbon and manually create the Correction.

2. Manage Die Corrections

- Use the Die Correction screen to view existing corrections and update Correction header information:

The screenshot shows the 'Maintain Die Corrections' application window. It features a menu bar with 'View', 'Find', 'New', 'Edit', and 'Delete'. Below the menu bar are tabs for 'Properties', 'User Fields', and 'Changes'. The main content area is divided into several sections: 'Correction Properties' with fields for Correction Number (1000), Date Created (4/4/2019), Entered By (STEPHAN), Die (03242), Die Copy (1), and Defect Code (CRACKING); 'Correction Status' with fields for Correction Status (A), Die Location, Next Task, Die Status (11), Holes Affected, and Defect Note (DO NOT USE); 'Correction Scheduling' with fields for Start Date, Completion Date, Assigned To, Scheduled Date, Shift, Seq, Vendor, Ship Date, Expected Return Date, and Shipment Num; and 'Correction Task History' which includes a table with columns: Task Code, Created By, Date, Start Time, Stop Time, Location Code, Done By, Vendor, Holes Corrected, Next Task Code, and Note. At the bottom of the window are buttons for 'Open Linked Production Posting' and 'Open Correction Schedule'.

- Add tasks to a correction by going into 'Edit' mode and clicking on the 'Add New Task' button of the 'Corrective Task History' section.

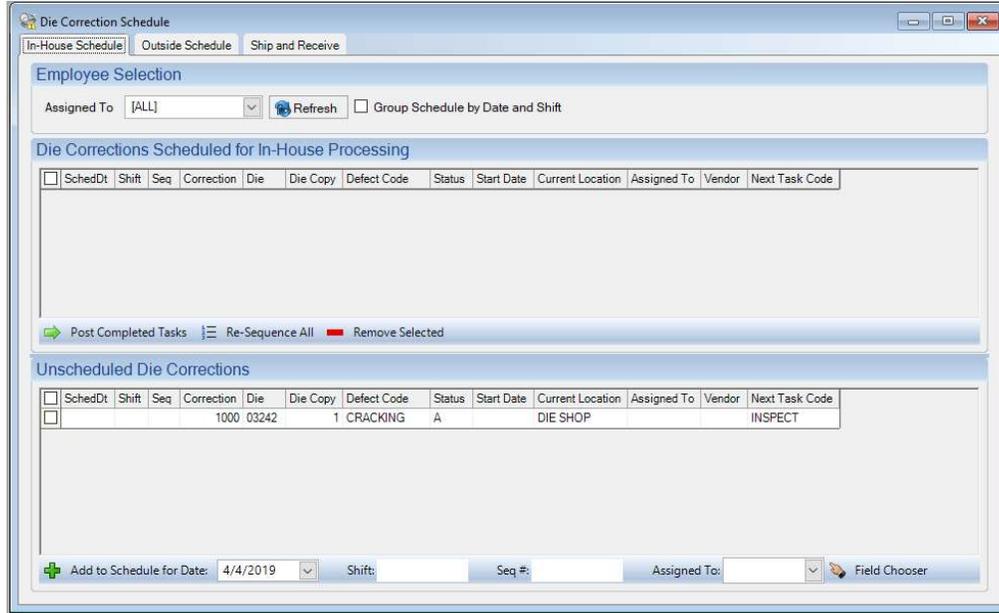
The screenshot shows the 'Post Completed Correction Task' dialog box. It has a title bar with 'Post Completed Correction Task' and a close button. Below the title bar are buttons for '+ Post Completed Task' and 'Cancel'. The main content area is divided into two sections: 'Task Details' and 'Correction Details'. 'Task Details' includes fields for Correction Num (1000), Die (03242), Copy (1), Defect Code (CRACKING), Task Code, Holes Corrected, Done By, Date (4/4/2019), Start Time (10:46 AM), Stop Time (10:46 AM), and Minutes (0). There is also a 'Note' field. 'Correction Details' includes fields for New Location, Next Task, Assign To, and a checkbox for 'Mark Correction As Complete'.

- Add a Task Code and assign a corrector to each Task.
- Optionally include the 'Holes Corrected'.

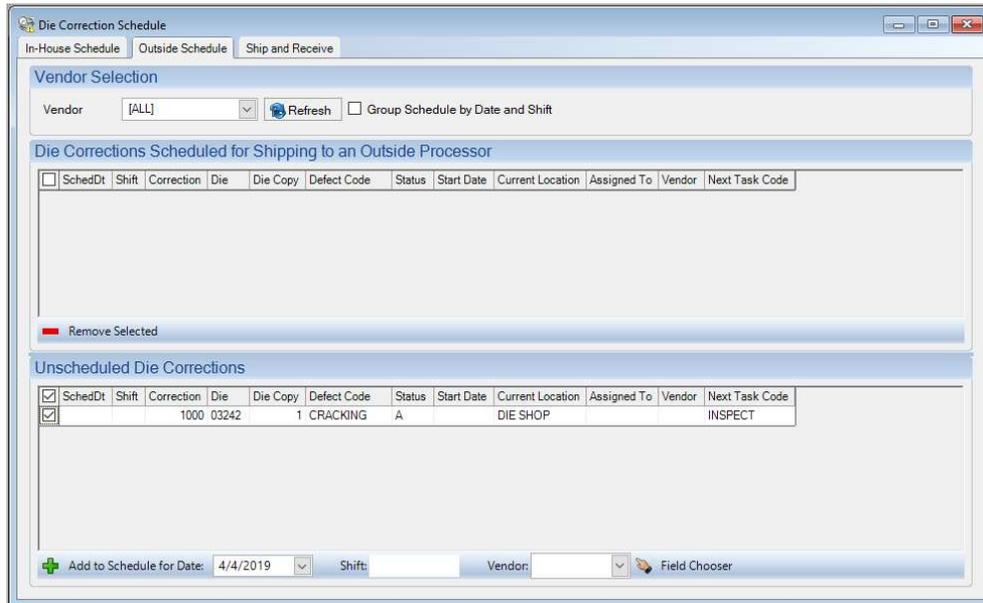
- Optionally include a Note for the Corrector.

3. Schedule Die Corrections for follow-up using the Die Correction Schedule screen.

- In house schedule:



- Schedule for sending corrections outside



4. Use the 'Ship and Receive' tab of the Die Correction Schedule screen to send die copies to and from supplier for correction.

The screenshot displays the 'Die Correction Schedule' application window with the 'Ship and Receive' tab selected. The interface is divided into three main sections:

- Vendor Selection:** Includes a dropdown menu for 'Vendor' set to '[ALL]' and a 'Refresh' button.
- Dies Awaiting Shipment:** Features a 'Date of Shipment' dropdown (4/4/2019), an 'Expected Return' dropdown (4/4/2019), and a 'Post Shipments' button. A table below lists the following data:

Correction	Die	Copy	SchedDt	Shift	Current Location	Vendor	Next Task Code	
<input type="checkbox"/>	1000	03242	1	04/04/2019	1	DIE SHOP	AME	INSPECT
- Dies To Be Received:** Includes a 'Date Received' dropdown (4/4/2019) and a 'Receive Shipments' button. A table below lists the following data:

Correction	Die	Copy	ShipmentNum	ShipDt	ExpectedReturnDt	Defect Code	Start Date	Current Location	Vendor	Next Task Code
------------	-----	------	-------------	--------	------------------	-------------	------------	------------------	--------	----------------

Master Workorder and Master Workorder Optimized for Cutback Less time, less scrap

The **Master Workorder** (MWO) combines multiples extrusion jobs into a single job. They must have matching...

- Die
- Alloy
- Temper
- Length

The **Master Workorder Optimized for Cutback** allows you to combine extrusion jobs for Cutback. The items must have matching...

- Die
- Alloy
- Temper

All jobs will be planned to one optimal roughcut length, and a detailed Cutback cutting pattern will be calculated.

Master Workorder

The screenshot displays a software interface for managing Master Workorders. At the top, there are three tabs: 'Find Master Workorders', 'Create or Edit Standard Master Workorders', and 'Create Master Workorders Optimized for Cutback'. Below the tabs, there are two main sections: 'Workorder Scan Selection' and 'Create or Edit Master Workorder'. The 'Workorder Scan Selection' section has three radio buttons: 'All eligible workorders' (selected), 'Un-assigned workorders only', and 'Master Workorders only'. The 'Create or Edit Master Workorder' section has three radio buttons: 'Create New Master Workorder for selected items' (selected), 'Add selected items to Master Workorder:', and 'Remove selected items from Master Workorder:'. There is also a 'Create MWO' button. Below these sections is a table titled 'Workorders' with columns: Die, Alloy, Temper, Length, MWO Number, Lot Pc, Lot Lb, Finish, SO Number, Item, Lot, Plan Date, and Sched Date. The table contains 15 rows of data, with the first row highlighted in blue.

Die	Alloy	Temper	Length	MWO Number	Lot Pc	Lot Lb	Finish	SO Number	Item	Lot	Plan Date	Sched Date
<input type="checkbox"/>	00034	6063	T5	96.5"	1036	216	2000 000	13562	1	1A11	11/25/2014	
<input type="checkbox"/>	00034	6063	T5	96.5"	1036	216	2000 000	13562	3	1A11	11/25/2014	
<input checked="" type="checkbox"/>	00068	6063	T5	96.5"		100	2354 000	13619	1	1A11	03/03/2015	
<input type="checkbox"/>	00068	6063	T5	96.5"		84	2000 000	13061	1	1A11	03/31/2011	
<input type="checkbox"/>	00068	6063	T5	96.5"		100	2354 000	13157	1	1A11	05/02/2011	
<input type="checkbox"/>	00208	6308	T5	198"		9	250 000	13068	1	2A11	04/24/2013	
<input type="checkbox"/>	00208	6308	T5	198"	1012	9	250 000	13068	1	3A11	04/24/2013	
<input type="checkbox"/>	00208	6308	T5	198"	1012	9	250 000	13068	1	4A11	04/24/2013	
<input type="checkbox"/>	00857	6063	T6	15'8"		167	3656 000	13312	2	2A11	11/02/2016	
<input type="checkbox"/>	00857	6063	T6	188.0"		125	3522 000	13312	4	1A11	11/02/2016	
<input type="checkbox"/>	00927	6063	T6	90"	1003	28	1072 102	13024	4	1A11	05/09/2011	
<input type="checkbox"/>	00975	6063	T5	212.0"		1	581 000	13263	1	1A11	03/21/2013	
<input type="checkbox"/>	00975	6063	T5	212.0"		35	24208 000	13982	1	1A11	03/21/2016	

To Create the Master Workorder...

1. Open the Master Workorders screen from the Workorders menu on the Orders tab
2. Choose your 'Workorder Scan Selection' options
3. Click any job to highlight matches
4. Click the checkbox for jobs that you want to include or click "Select All Highlighted" to check all
5. Click the Create MWO button to generate the Master Workorder

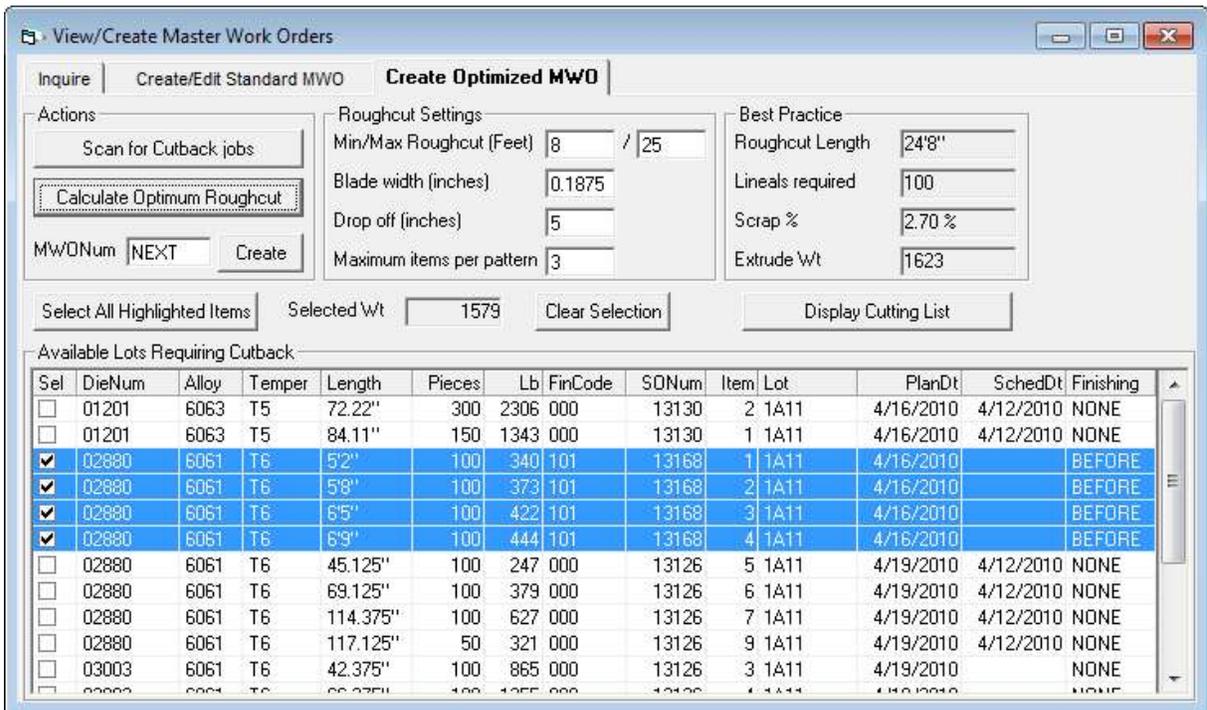
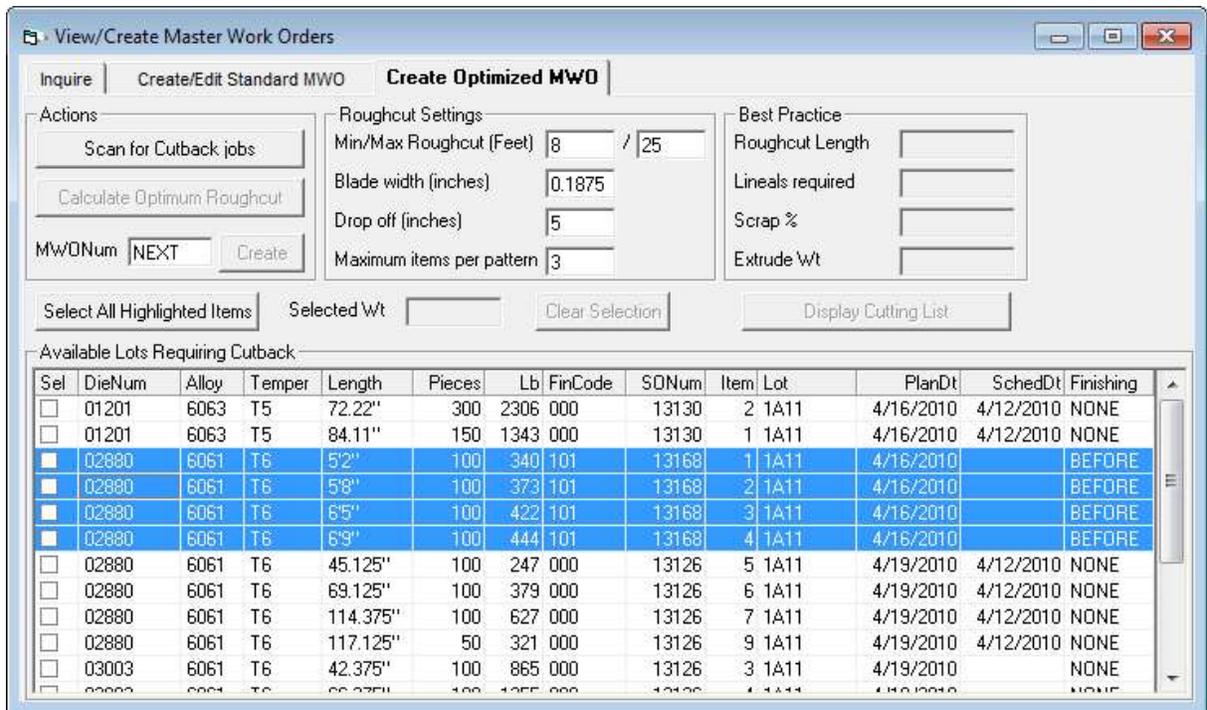
To Calculate and Print...

1. Open the Calculate and Print Workorders screen and select the Scan tab
2. Sort on the MWO column to find your Master Workorder
3. Select any item on the MWO, all items will automatically be selected
4. Click 'Create Workorder' and then Print the Workorder, if desired
5. You will get a Master Workorder containing the master plan to extrude all items
6. You will also get individual workorders for each item

		MASTER WORK ORDER			MWO 1036				
Pounds to Extrude 4,000 (3,600-4,400)		Pieces to Extrude 432 (389-475)		Billets to Run 39 @ 9 x 30.00					
DIE INFORMATION									
Die/Copy Number 00034 - 1	Die Type S	Holes 1	Lb/Ft 1 149 Print, 1,200 Actual	Backer 60310-1	Bolster N14A-01A4				
Rack Location 3648	Perimeter 20.178	Lb/Piece 9.240 Print, 9.650 Actual	Tool# A-25-DH	Tool# 75630-1					
EXTRUSION INFORMATION									
Press Press 2 - 9 inch	Billets to Run 39 @ 9 x 30.00	Butt Size 1.00 in	Billet Temp. 0	Zone1 Temp 0	Total End Scrap 12.6 Ft (6.0 Ft Min)				
Saw Length 96.5000 = 96.5" (17 pc/bil)	Runout 1 @ 149 Ft	Drags 1	Recovery 88.5 est, 67.0 avg.	Zone2 Temp 0	Front End Scrap 3.0 Ft (0.0 Ft Min)				
Saw Setting 11.10	Est. Hours 17.6	Lb/Hour 288 best 227 avg.	Minutes/Billet 40.7	Zone3 Temp 0	Rear End Scrap 9.6 Ft (0.0 Ft Min)				
Alloy/Temp 6063/T5									
ITEM DETAIL									
SO-Item	Lot	WEIGHT		PIECES		Due Dt	Finish	Part	Routing
		Ordered	Remaining	Ordered	Remaining				
13562-1	1A11	2,000	2,000	216	216	12/01/2014	Mill Finish	003085	MILL
13562-3	1A11	2,000	2,000	216	216	12/01/2014	Mill Finish	003085	MILL

Optimized Master Workorder

1. Click on the 'Create Master Workorders Optimized for Cutback' tab on the Master Workorders screen
2. Click on the 'Scan for Cutback Jobs' button
3. Click on any line to highlight matches
4. Click on the 'Select All Highlighted Items' button to select the items.
5. Click on the 'Calculate Best Practice' button to have EPICS find the optimal roughcut length for all the jobs selected



- Click 'Display Cutting List' to see the cutting pattern that will give you the right number of pieces at each finish length

Cutting List									
Pattern	Lineals	SONum	Item	Lot	Cut Length	Pcs/Lineal	Pieces	Remainder	Scrap %
1	50							9.25"	3.38
		13168	1	1A11	5'2"	2	100		
		13168	4	1A11	6'9"	2	100		
2	50							5.25"	2.03
		13168	2	1A11	5'8"	2	100		
		13168	3	1A11	6'5"	2	100		

- Click on the 'Create' button to create the Optimized Master Workorder
- Print and schedule the Optimized Master Workorder with the same method as previously described for the Master Workorder
- Post your Press Production by scanning or typing in the MWO number

12:30 – 1:20 p.m.

Capacity Planning – Coming soon in version 9.10

Capacity planning is production planning with the goal of not exceeding the capacity of a machine for any day. Knowing the time available for your machines, and knowing a good estimate for how much time each job will require, you can accurately schedule individual production jobs for a specific date. When the capacity for a machine has been consumed for a day (when the time available has been filled), other jobs will be scheduled for another day.

The benefits of capacity planning include...

- More efficient use of time
 - More accurate scheduling reduces uncertainty
 - Time is managed more efficiently
- More efficient use of personnel
 - You can better estimate the number of people needed
 - You can better estimate when people are needed
- More efficient use of materials
 - You can better estimate when materials (tools, supplies, racks, etc.) are needed
- Customer Service can know a more accurate delivery date

Determining Capacity Starts with Time

The capacity for a machine is simply the time the machine is available for a day.

Beginning with EPICS version 9.10, you will see new fields on the Departments and Machines screen. Hr/Day is the standard number of hours the machine is available for the day. This standard number may be adjusted from the Machine Calendar.

Number	Name	Install Date	Hr/Day	Rate/Hour	Rate Unit	Inactive
1	Aging		16	3880	Lb	<input type="checkbox"/>
2	AGE 2		16	3880	Lb	<input type="checkbox"/>
3	Aging		16	3880	Lb	<input type="checkbox"/>

Determining how much time each job will require

The Rate/Hour and Rate Unit fields (see image above) set the standard rate for the machine.

Example: The machine is available for 12 hours per day

The standard rate is 1,000 lbs. per hour

The machine will reach its capacity for the day when 12,000 lbs. are scheduled

The standard Rate/Hour can be overridden for each Part.

Part 032171 for Calloway Mechanical

View 0001 of 3683 Find New Edit Delete

Properties User Fields Prices Stock Drawing Files Links Dept Specs (2) Changes (16)

Part Identification

Part: 032171 Part Cust Number: 00007 Category: CUSTOMER PART Inactive

Department Specs

Department	Machine	PcMult	WtMult	StdCrew	StdRec	Rate/Hour	Rate Unit	StdCost	StdCostUnit	DaysNorm	DaysF
AGE-FAR	1	1	1	0	100	5000	Lb	0			
CNC	1	1	0.87	1	100	18	Pieces	0.75	Piece	5	

This shows a specific Rate/Hour for the “AGE-FAR” department of 5,000 Lb per hour. When a job for this part is scheduled, it will consume capacity at this rate rather than the standard rate.

Order Entry – where it all begins

Order Entry

View 9 of 9 Find New Edit Delete

1 Properties 2 Other 3 User Fields 4 Notes 5 Links 6 Changes

Sales Order for Rstems USA

Bill To Customer: 17000 Office: 003 Entered By: SCOTT SO Number: 13266 #

Customer PO: Type: NORMAL SO Order Date: 3/27/2019 5930 Total Pounds

Items

Item	Part	Quantity	Unit	Pounds	Die	Alloy	Temper	Finish	Length	Routing	Ship-To	Prod Date	Ship Date
1	10111	1000	Lb	1000	01917	6063	T4	000	21.5"	NOAGE RECUT	17000	05/23/2019	05/31/2019
2	10144	1200	Pieces	4532	02971	6063	T4	000	91"	NOAGE RECUT	17000	05/23/2019	05/31/2019
3	10152	800	Feet	398	02971	6063	T4	000	85.5"	NOAGE RECUT	17000	05/23/2019	05/31/2019

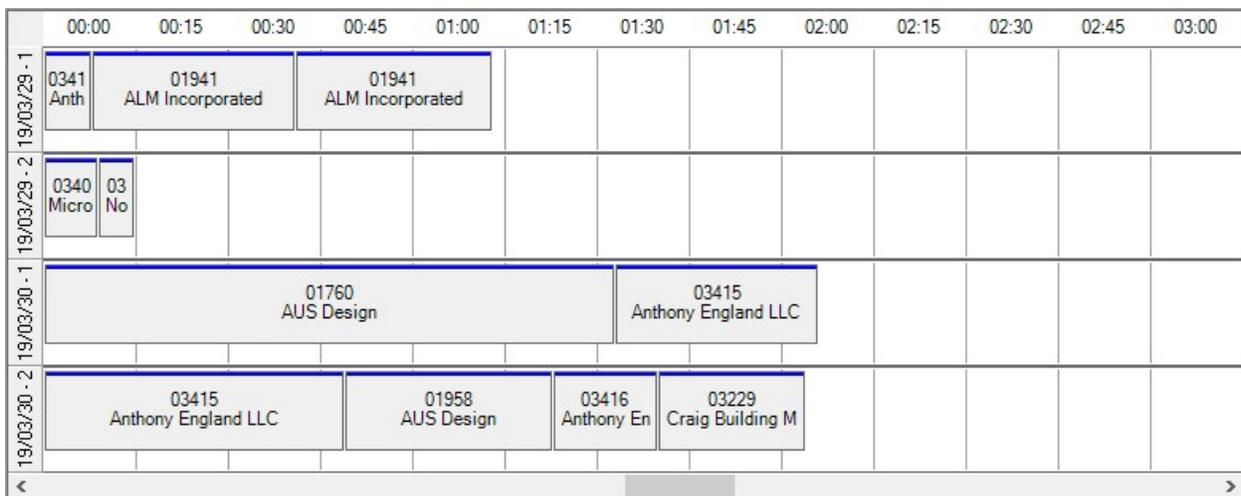
As items are entered on the Order Entry screen, capacity is consumed *as each item is completed*, not when the sales order is posted. Capacity is consumed on a first-come-first-serve basis. Plan Dates for all departments are automatically assigned based on available capacity for each machine.

Dies – Preferred Press

For Order Entry to be able to automatically assign Plan Dates based on available Capacity for a press, at least one press must be specified for each die. If you have dies which can be run on more than one press, they can be assigned a “Preferred Press” to indicate which press should be loaded first.

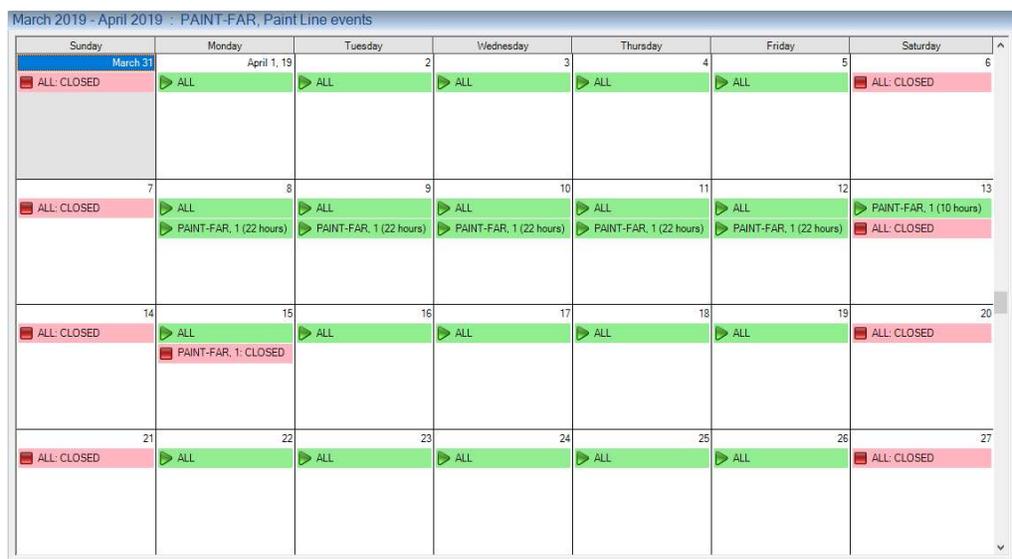
Capacity Balancing Chart

This will be a tool for making adjustments, as needed, to the loads on Machines within a department. This chart will be very similar in appearance and function to the Chart View of the scheduling screens (below). It will allow you to drag-and-drop jobs from one Machine and Date to another.



Machine Calendar

The Machine Calendar will allow you to override the standard Hr/Day from the Machines screen (see above). You will be able to reduce or extend the hours available for any machine on any day.



1:30 – 2:00 p.m.

Questions and Answers

NOTES: