A Case for Eclipse

Why Computer Integrated Manufacturing is Critical for your Operations



Introductions



- Name
- Company
- Job Title
- What Do You Want To Get Out Of Class

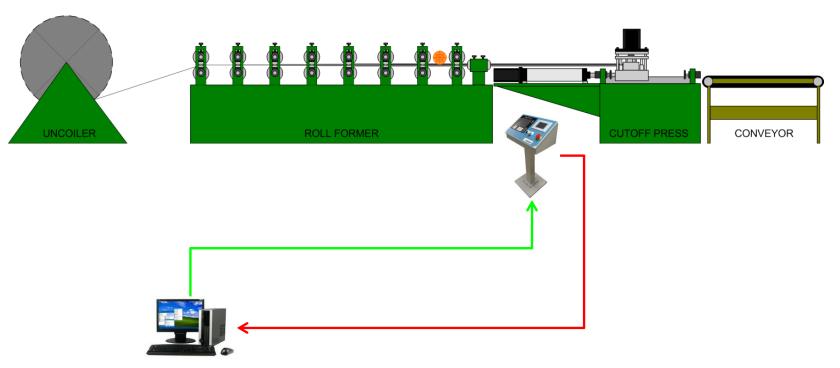


Topics

- Why Is Eclipse Valuable
- Eclipse Data Flow
- Mistake-Proofing Tools
- Productivity/Profitability Tools
- Operational Tools



What is Eclipse?



Software Integrated Manufacturing



What is Eclipse?

Sales

Accounting

Shipping

Inventory

Design Software

Analytics

Preventative Maintenance

Quality Assurance ECLIPSE PRO

Production
Management
System

Machine Controls

Bar Code Scanners

Part Marking

Label Printers

Quality Measurement Information Displays

Mobile Terminals



What is Eclipse good for?

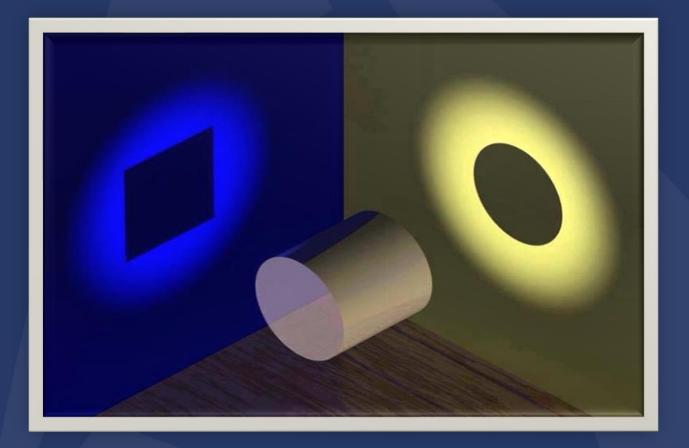
- Mistake-proofing
- On-time deliveries



- Perfect accounting & inventory control
- Eliminating waste/growing capacity
- Flexibility
- Management focus and capital spending
- Continuous improvement



How is Eclipse Viewed





Eclipse Data Flow

Data Flow & Processing from ERP to XL200 and back to Eclipse



Eclipse Data Flow



Order Import File



		FECT BUILDING SYSTEM 9020 MT. VERNON R ST. LOUISVILLE, MAIN	DAD			
	PHONE:	340-345-2998 FAX:	940-345-2903			
SOLD TO		MAN RD NE VILLE, ME 53071		DATE:		914638 WS 15
SHIP TO	5370 JOH	ND SUSIE WILLIAMS NSTOWN ALEXANDRIA RO. N. MAINE 53031 1675 98-2959	AD E	ALES ID:	ADAM 1 09/18, 09 498 REV	15 iL 2*
	OR	0#031498****ORD # ORD #0314 0#031498******ORD #	031498*****ORD #0314 98 REV 2 031498*****ORD #0314	98**		
	ITEM QTY	U/M DESCRIPTION		U-PRC P	ER !	ET ANT
64_BR01	NN 104.00	F 36" (40 YEAR LT 5-139.992",1-8 1-76.992", 1-4	D PAINTED) 2.992",1-25.992", 8.996", 1-15.996"	1.940 LF	20	1.76

Order



Order/Invoice

PERFECT BUILDING SYSTEMS 9020 MT. VERNON ROAD ST. LOUISVILLE, MAINE 43071

PHONE: 940-345-2998 FAX: 940-345-2903

SOLD TO: JIM MCLAUGHLIN ACCT-PRJ: JMCLAN-000

398-2959 INVOICE #: 150950914638 1384 BILLMAN RD NE PO#: WILLIAMS

ST LOUISVILLE, ME 53071

DATE: 09/10/15
TIME: 17:11:52
SHIP TO: ROBERT AND SUSIE WILLIAMS

SALES ID: ADAM T

5370 JOHNSTOWN ALEXANDRIA ROAD DELIVERY: 09/18/15
JOHNSTOWN, MAINE 53031 ROUTE: DEL

940-322-3675 *ORD #031498 REV 2* PH#940-398-2959 1000-27 PAGE 1

** ORD #031498 REV 2 **

ORD #031498***ORD #031498**

ITEM QTY U/M DESCRIPTION U-PRC PER NET AMT

ORD #031498***ORD #031498****ORD #031498**

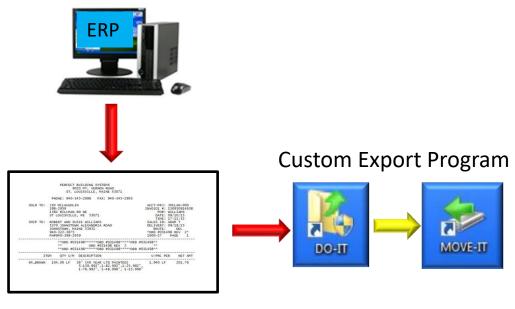
64_BROWN 104.00 LF 36" (40 YEAR LTD PAINTED) 1.940 LF 201.76

5-139.992",1-82.992",1-25.992", 1-76.992", 1-48.996", 1-15.996"

Import Orders



Custom Cut-List Program



Order



Order Import File







```
ORDERIN.DEL - Notepad
File Edit Format View Help
```

Import Orders



Order Import File



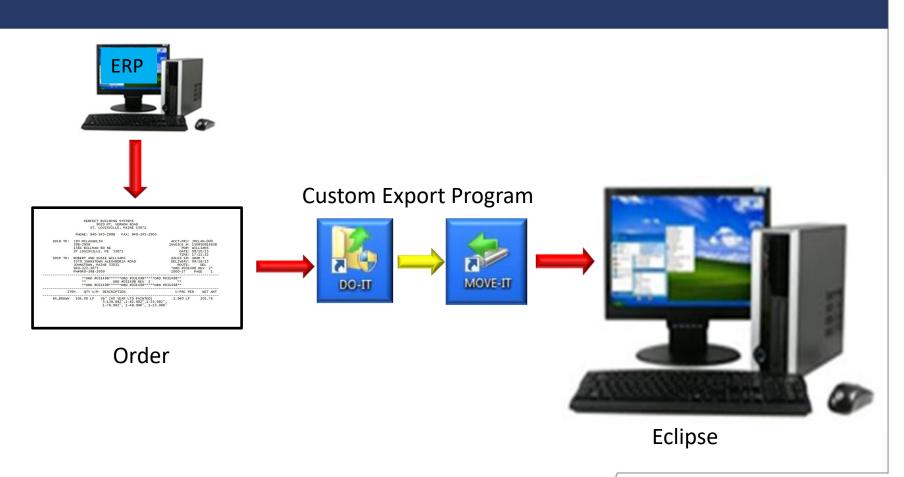


```
ORDERIN.DEL - Notepad
      '29GA","","","
              PERFECT BUILDING SYSTEMS
                   9020 MT. VERNON ROAD
                 ST. LOUISVILLE, MAINE 43071
          PHONE: 940-345-2998
                               FAX: 940-345-2903
SOLD TO: JIM MCLAUGHLIN
                                                      ACCT-PRJ: JMCLAN-000
         398-2959
                                                     INVOICE #: 150950914638
                                                           PO#: WILLIAMS
         1384 BILLMAN RD ME
         ST LOUISVILLE, VE 53071
                                                          DATE: 09/10/15
                                                          TIME: 17:11:52
SHIP TO: ROBERT AND SUSIE WILLIAMS
                                                      SALES ID: ADAM T
         5370 JOHNSTOWN ALEXANDRIA ROAD
                                                      DELIVERY: 09/18/15
         JOHNSTOWN MAINE 53031
                                                       ROUTE:
         940-322-3675
                                                       *ORD #031498 REV 2*
         PH#940-298-2959
                                                      1000-27 PAGE
             **ORD #031498******ORD #031498****ORD #031498**
                           ORD #031498 REV 2
             **ORD #031498******ORD #031498****ORD #031498**
              QTY U/M DESCRIPTION
          104.00 LF
                                                       1.940 LF
                                                                    201.76
                      5-139.992",1-82.992",1-25.992",
1-76.992", 1-48.996", 1-15.996"
```

Import Orders

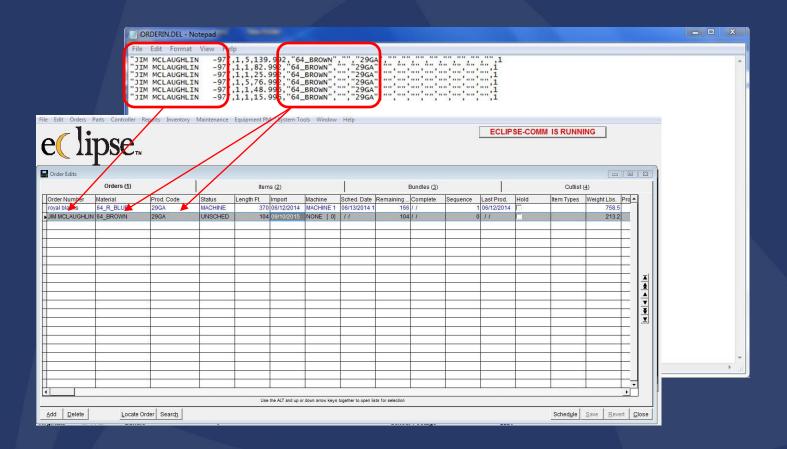


Order Import -Orderin.del File





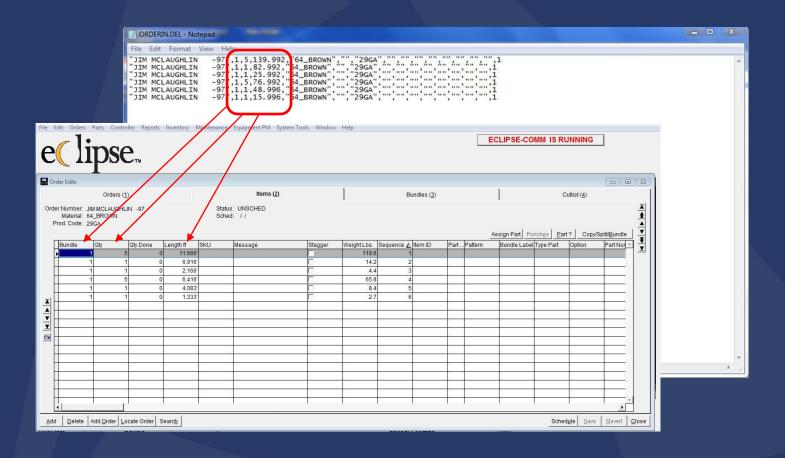
Order Import File



Import Orders



Order Import File



Import Orders



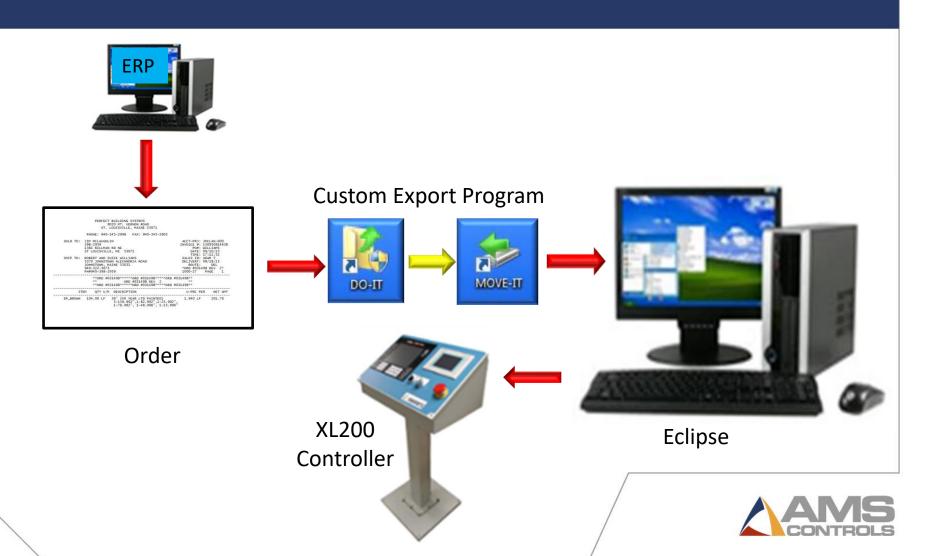
Order Import File-SQL

													As a	
	order_	bundle	qty	length	material	pcode	item_id	action	sqlseqnce	sqlstatus	sqlplant	adjdate		adjkeyno
1	S13257	1	21	324.000	CBU26	PBU26PBR	210124	Α	1	С	16	2016-08-2	Initial Im	port
2	S13257	1	4	168.000	CBU26	PBU26PBR	210116	Α	2	С	16	2016-08-	militar in	port
3	S13257	1	1	162.000	CBU26	PBU26PBR	210117	Α	3	С	16	2016-08-2	25 08:38:03.893	4489
4	S13257	1	1	156.000	CBU26	PBU26PBR	210118	Α	4	С	16	2016-08-2	25 08:38:03.893	4490
5	S13257	1	1	150.000	CBU26	PBU26PBR	210119	Α	5	C	16	2016-08-2	25 08:38:03.893	4491
6	S13257	1	1	144.000	CBU26	PBU26PBR	210120	Α	6	С	16	2016-08-2	25 08:38:03.897	4492
7	S13257	1	1	138.000	CBU26	PBU26PBR	210121	Α	7	С	16	2016-08-2	25 08:38:03.897	4493
8	S13257	1	1	132.000	CBU26	PBU26PBR	210122	Α	8	С	16	2016-08-2	25 08:38:03.897	4494
9	S13257	1	1	126.000	CBU26	PBU26PBR	210123	Α	9	С	16	2016-08-2	25 08:38:03.900	4495
10	S13257	1	21	324.000	CBU26	PBU26PBR	210124	D	1	С	16	2016-0	1at Cha	
11	S13257	1	4	168.000	CBU26	PBU26PBR	210116	Α	3	С	16	2016-0	1st Cha	ige
12	S13257	1	4	168.000	CBU26	PBU26PBR	210116	D	4	С	16	2016-09-0	12 08-27-17 057	4869
13	S13257	1	1	162.000	CBU26	PBU26PBR	210117	Α	5	С	16	2016		
14	S13257	1	1	162.000	CBU26	PBU26PBR	210117	D	6	С	16	2016		
15	S13257	1	21	324.000	CBU26	PBU26PBR	210124	Α	2	С	16	2016	Action	Code - S
16	S13257	1	1	156.000	CBU26	PBU26PBR	210118	D	7	С	16	2016	Action	code - :
17	S13257	1	1	156.000	CBU26	PBU26PBR	210118	Α		С	16	2016	fields s	such as:
18	S13257	1	1	150.000	CBU26	PBU26PBR	210119	Α			16	2016	2400300750	
19	S13257	1	1	150.000	CBU26	PBU26PBR	210119	D	10	С	16		Order,	2.) segu
20	S13257	1	1	144.000	CBU26	PBU26PBR	210120	D	11	С	16	2016	33000000000	100
21	S13257	1	1	144.000	CBU26	PBU26PBR	210120	A	12	С	16	2016	from th	e Mach
22	S13257	1	1	138.000	CBU26	PBU26PBR	210121	A	13	C	16	2016	modifies	tion to
23	S13257	1	1	138.000	CBU26	PBU26PBR	210121	D	14	C	16	2016	nounce	mon to
24	S13257	1	1	132.000	CBU26	PBU26PBR	210122	D	15	С	16	2016		
25	S13257	1	1	132.000	CBU26	PBU26PBR	210122	A	16	C	16	2016		
26	S13257	1	1	126.000	CBU26	PBU26PBR	210123	A	17	C	16	2016		
27	S13257	1	1	126,000	CBU26	PBU26PBR	210123	D	18	C	16	_	02 08:27:17.067	4876
28	S13257	1	21	324.000	CBU26	PBU26PBR	210124	D	1	С	16	2016-09		\rightarrow
29	S13257	1	21	324.000	CBU26	PBU26PBR	210124	A	2	C	16	2016-09	2nd Cha	nge
30	S13257	1	4	168.000	CBU26	PBU26PBR	210116	A	3	С	16		08 07:50:18.233	5142
31	S13257	1	4	168.000	CBU26	PBU26PBR	210116	D	4	С	16		08 07:50:18.247	5133
32	S13257	1	1	162.000	CBU26	PBU26PBR	210117	A	5	С	16		08 07:50:18.257	5143
33	S13257	1	1	162.000	CBU26	PBU26PBR	210117	D	6	C	16		08 07:50:18.267	5134
34	S13257	1	1	156.000	CBU26	PBU26PBR	210117	D	7	С	16		08 07:50:18.267	5135
35	S13257	1	1	156.000	CBU26	PBU26PBR	210118	A	8	C	16		08 07:50:18.290	5144
36	S13257	1	1	150.000	CBU26	PBU26PBR	210118	D.	9	C	16		08 07:50:18.290 08 07:50:18.300	5136
37	S13257	1	1	150.000	CBU26	PBU26PBR	210119	A	10	C	16		08 07:50:18.300 08 07:50:18.310	5145
38		1	1	144.000	CBU26		210119	A	11	C	16		08 07:50:18.310 08 07:50:18.323	5145
38	S13257 S13257	1	1		CBU26	PBU26PBR			12	C	16			5146
				144.000		PBU26PBR	210120	D					08 07:50:18.333	
40	S13257	1	1	138.000	CBU26	PBU26PBR	210121	D	13	С	16		08 07:50:18.343	5138
41	S13257	1	1	138.000	CBU26	PBU26PBR	210121	A	14	С	16		08 07:50:18.357	5147
42	S13257	1	1	132.000	CBU26	PBU26PBR	210122	Α	15	С	16		08 07:50:18.360	5148
43	S13257	1	1	132.000	CBU26	PBU26PBR	210122	D	16	С	16		08 07:50:18.370	5139
44	S13257	1	1	126.000	CBU26	PBU26PBR	210123	D	17	С	16		08 07:50:18.380	5140
45	S13257	1	1	126.000	CBU26	PBU26PBR	210123	Α	18	С	16	2016-09-0	08 07:50:18.390	5149

Action Code - Specifies what Eclipse is to do with the associated record fields, such as: 1.) adding a new Order or making changes to an existing Order, 2.) sequencing Orders as they are added, 3.) recalling an Order from the Machine, deleting it from Eclipse and then sending a "returned" notification to the upstream system.



XL200 Controller



XL200-Controller

6 Important Functions of XL Series

- Machine Controller Basics
- Scrap Handling
- Downtime Handling
- Coil Changes
- The Part Queue
- Calibration



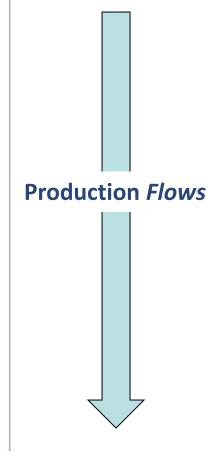


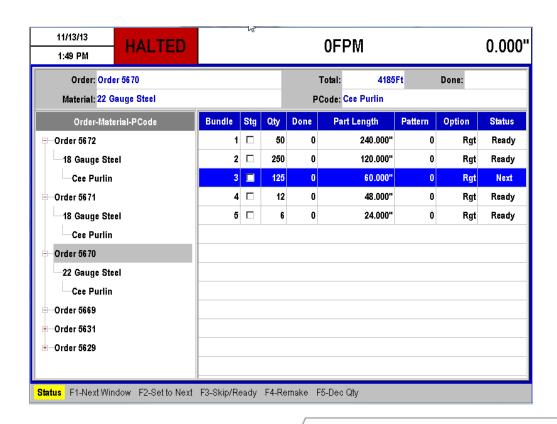
XL200-Controller Basics

Duplicates hotkey functions, current menu selection.

Statust Orderst Date/Time, Machine Status, Line Speed, Length Past Shear Order Information 11/26/08 6.797" RUN 98FPM Remaining Footage 3:57 PM Order: 1234 100Ft Done: 45Ft PCode: U-Channel **Cutlist** Material: Steel Order-Material-PCode Bundle Stg Qty Done Part Length Status Bundle 60.000" Work **Order List** Steel 2 🗆 120.000" Fill Quantity U-Channel Order Number Length Raw Material Status **Tooling Navigation** Si**Mieruto aseid domo Siont Keys**ton.

XL200-Controller Basics







XL200-Part Queue

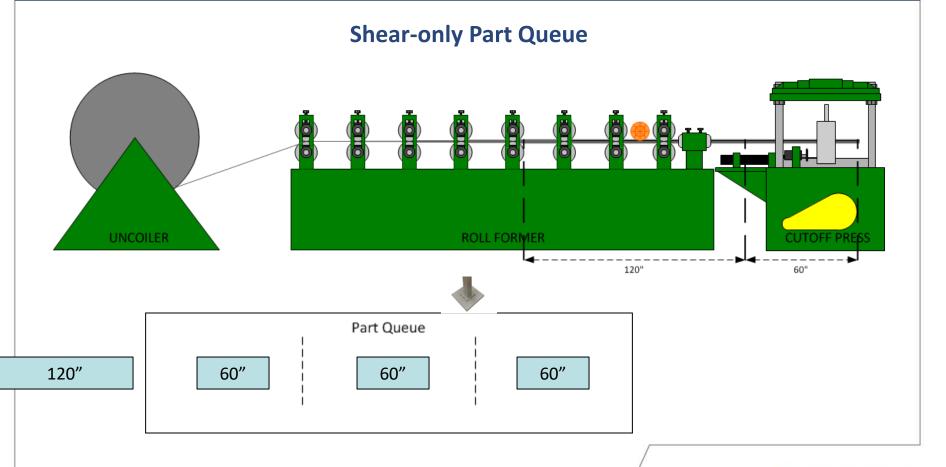
Shear-only Part Queue
Two versions of the Part Queue: Shear-only and Punching

11/15/13 HALTED)	0FPM	25.793
Model: XL200	Created:	0/00/0012:00 AM Switch: 3	Version: 4.12.03
Setup Menu	ID	Name	Value
■ Machine Parameters	775	Last Programmed Length	60.000
Configurations	776	Last Measured Length	0.000
Tool Data	† 777	Correction Factor	100.000%
Trim Correction	778	Parts in Queue (Auto)	(
⊕ Controller Settings			
License			
QuickSet Data			
· · · · · · · · · · · · · · · · · · ·		ased on programmed part length and actual m art lengths are CONSISTENTLY long or CONSI	
SetUp F1-Next Window F2-Add to C	onfig. F3-	Remove From Config. F4-Set Lock F5-Clea	r Lock F6-Add QuickSet

The Part Queue is "dumped" when the line is halted

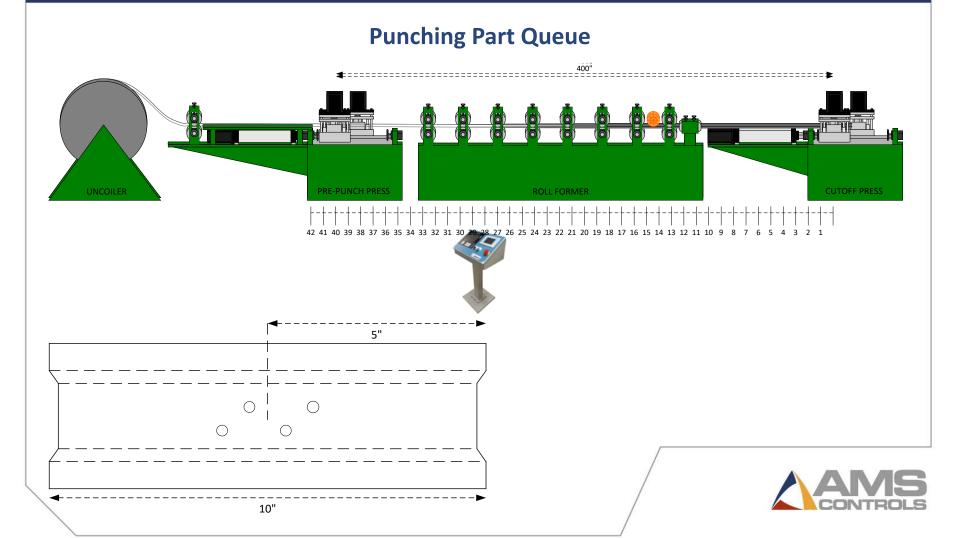


XL200-Part Queue





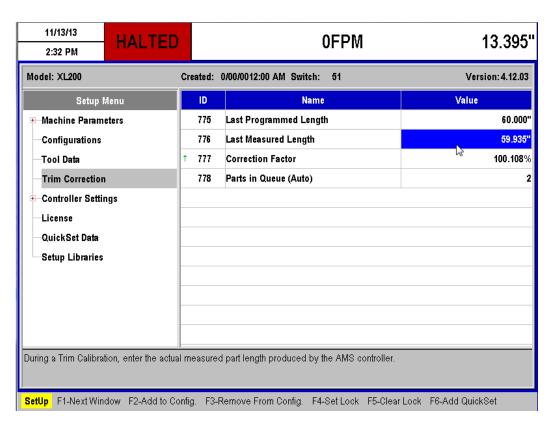
XL200-Part Queue



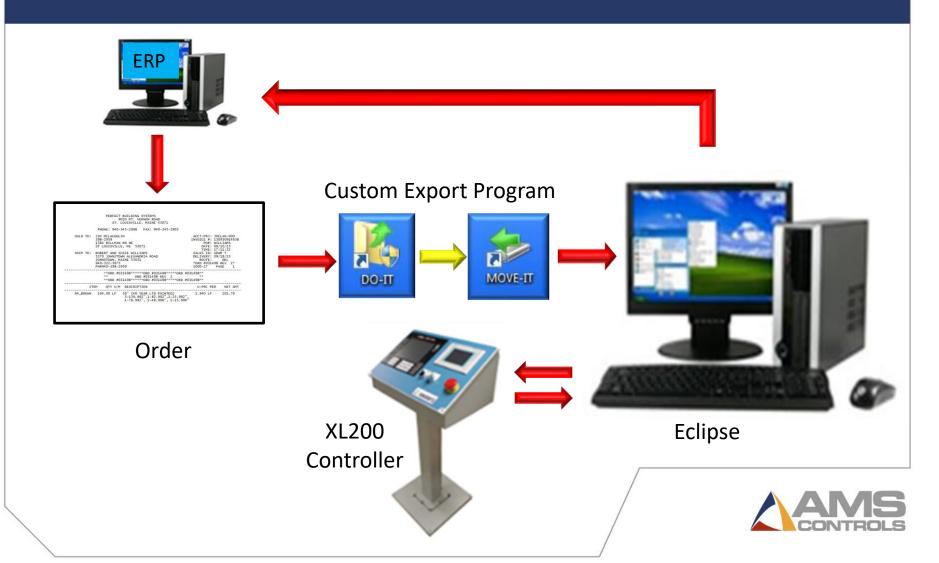
XL200-Length Calibration

On-board Length Calibration

- Calibration corrects consistent error, not variance.
- Calibration is required due to encoder wheel measuring error.
- Operators enter length measured.
- Mind the queue!







Wor	ld-class	Roll F	orming	Pro	duction	Recor	ds						
TYPE R	/ DATE	TIME	ORDER	MATERIAL	BNDL QTY	PATT.	LENGTH IN.	INV COIL	FOOTAGE IN.	EMPL ID			DOWN TIME
Dat	a for file	: \ECL	IPSE\HISTO	RY\PRD200802181.DBF									
	-	-profile											
	02/18/2008				0					1	0	0	0.00
4	02/18/2008				0					1	0	0	0.00
7	02/18/2008			205014400075	2					20207	0	1	78.80
3 1 T	02/18/2008			Z05014400075 Z05014400075	2	000 0	141 70000	GW0092644		20207	0	0	0.12
1 1	02/16/2006	07:10:55	291037	205014400075	- 4	000 K	141.752000	3		20207	0	U	0.00
1 M	02/18/2008	07:27:47	291637	205014400075	2	000 R	141.732000)GW0092644	156.481	20207	0	0	0.00
1 M	02/18/2008	07:56:24	291637	Z05014400075	2	000 R	141.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:56:28	291637	Z05014400075	2	000 R	141.732000	GW0092644 3		20207	0	0	0.00
1 M	02/18/2008	07:56:33	3 291637	Z05014400075	2	000 R	141.732000	GW0092644 3		20207	0	0	0.00
1 M	02/18/2008	07:56:42	291637	Z05014400075	2	000 R	141.732000	3		20207	0	0	0.00
7	02/18/2008	07:57:27	291637	205014400075	2					20207	0	7	38.53
3	02/18/2008			Z05014400075	2					20207	0	0	0.05
1 H	02/18/2008	07:57:33	3 291637	Z05014400075	2	000 R	141.732000	3 3		20207	0	0	0.05
3	02/18/2008			Z05014400075	2					20207	0	0	0.65
	02/18/2008			Z05014400075	2	000 R	141.732000	3 3		20207	0	0	0.05
7	02/18/2008			Z05014400075	2					20226	0		17.33
3	02/18/2008			Z05014400075	2					20226	0	0	0.79
	02/18/2008			Z05014400075	2	000 R	141.732000)GW0092644 3		20226	0	0	0.01
3	02/18/2008			205014400075	2					20226	0	0	0.02
	02/18/2008			Z05014400075	2	000 R	141.732000)GW0092644 3		20226	0	0	0.02
3	02/18/2008			Z05014400075	2					20226	0	0	0.05
	02/18/2008			Z05014400075	2	000 R	141.732000	GW0092644 3		20226	0	0	0.00
3	02/18/2008			Z05014400075	2					20226	0	0	0.01
	02/18/2008			205014400075	2	U00 R	141.732000	3 3		20226	0	0	0.02
3	02/18/2008			205014400075	2					20226	0	0	0.00
	02/18/2008			Z05014400075	2	000 R	141.732000)GW0092644 3		20226	0	0	0.02
3	02/18/2008			205014400075	2					20226	0	0	0.01
	02/18/2008			Z05014400075	2	000 R	141.732000)GW0092644 3		20226	0	0	0.00
3	02/18/2008			205014400075	2					20226	0	0	0.04
	02/18/2008			Z05014400075	2	000 R	141.732000	3 3		20226	0	0	0.01
3	02/18/2008			Z05014400075	2					20226	0	0	0.82
	02/18/2008			Z05014400075		1000 R	141.732000	3	141.735	20226	0	0	0.05
7	02/18/2008			Z05014400075	2					20226	0		19.68
3	02/18/2008	08:37:12	291637	Z05014400075	2					20226	0	0	0.07

Time: 10:32:27

08/20/2012

Type Code	Reason Code	Description
1		General Production Record
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode
	с	Coil Tailous, sensor detects passage of end of Coil. Machine is automatically halte and End of Coil Scrap Code is reported for any remaining Material, unless Machin Operator running a Scrap Bundle with 900+ Bundle Number, in which case that Scrap reason is reported for remaining material
	Ε	Machine was automatically halted because the programmed Coil Endpoint was reached. Machine Operator was prompted to cut the Coil at the pre-determined point prior to the entry to the roll former
	н	Machine Operator halted the Machine manually
	i	XL Series controller reports Bundle completion, but Machine controller was not configured for Bundle Halt Mode, so Machine continues producing by immediately and automatically changing to next Bundle
	M	XL Series controller reports Manual Shear by Machine Operator
	0	XL Series controller halts Machine automatically due to Out-of-Orders. There were no more Orders to run that could be queued (Material Code or Product Code change, or simply no more Orders in memory)
	Р	Machine Operator removed power from the XL Series controller
	R	Machine Operator employed Remake function on Machine controller to replace Scrap parts
	T	XL Series controller automatically halted Machine due to Out of Tolerance part
	х	Machine Operator employed Decrease Quantity function to alert the system that a part previously counted as Scrap is actually Good Footage
	γ	Machine Operator employed Increase Quantity on Machine controller to replace scrap parts
	z	Machine coast-to-stop. This code will always accompany a 1C record for a Tailou situation
2		Production Record Related to Coil Change
	D	Machine Operator reported Coil was completely consumed
	- L	Machine Operator reported new Coil loaded
	R	Machine Operator reported remaining Coil was returned to inventory
3		Machine Operator placed XL Series controller into Run mode
4		Machine Operator powered up XL Series controller
5		Order requested by Machine Operator from XL Series controller
6		XL Series controller reports an on-screen message (warning, error, notification)
7		Machine Operator reported a Downtime code



Wor	World-class Roll Forming				Pro	oduction	n Records							
TYPE	:/ D	ATE	TIME	ORDER	MATERIAL	BNDL QTY	PATT.	LENGTH IN.	INV COIL NUMBER	FOOTAGE IN.	EMPL ID			DOWN TIME
Dat	a for	file:	\ECLI	PSE\HISTOR	Y\PRD200802181.DBF									
[11 1	Multi-	profile	Line										
s R	-		06:00:00			0					1	0	0	0.00
4			07:12:53			0					1		0	0.00
7			07:18:48	291637	205014400075	2					20207	0	1	78.80
3			07:18:55		Z05014400075	2					20207	0	0	0.12
- 1 m			07:18:55		205014400075	2	000 B	141.732000	0GW0092644		20207	0	0	0.00
									3					
1 M	02/18	/2008	07:27:47	291637	Z05014400075	2	000 R	141.732000	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	156.481	20207	0	0	0.00
1 M	02/18	/2008	07:56:24	291637	Z05014400075	2	000 R	141.732000	3 GW0092644		20207	0	0	0.00
1 M	02/18	/2008	07:56:28	291637	Z05014400075	2	000 R	141.732000	3 GW0092644		20207	0	0	0.00
1 M	02/18	/2008	07:56:33	291637	205014400075	2	000 R	141.732000	OGW0092644 3		20207	0	0	0.00
1 M	02/18	/2008	07:56:42	291637	Z05014400075	2	000 R	141.732000	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20207	0	0	0.00
7	02/18	/2008	07:57:27	291637	205014400075	2					20207	0	7	20.03
3	02/18	/2008	07:57:30	291637	205014400075	2					20207	0	0	0.05
lН	02/18	/2008	07:57:33	291637	Z05014400075	2	000 R	141.732000	3 GW0092644		20207	0	0	0.05
♬	02/18	/2008	07:58:12	291637	205014400075	2					20207	0	0	0.65
lН	02/18	/2008	07:58:15	291637	Z05014400075	2	000 R	141.732000	3 GW0092644		20207	0	0	0.05
7	02/18	/2008	08:15:35	291637	Z05014400075	2					20226	0	7	17.33
3	02/18	/2008	08:16:22	291637	205014400075	2					20226	0	0	0.79
l H	02/18	/2008	08:16:23	291637	Z05014400075	2	000 R	141.732000	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20226	0	0	0.01
3	02/18	/2008	08:16:24	291637	205014400075	2					20226	0	0	0.02
1 H	02/18	/2008	08:16:25	291637	Z05014400075	2	000 R	141.732000	3 GW0092644		20226	0	0	0.02
3	02/18	/2008	08:16:28	291637	Z05014400075	2					20226	0	0	0.05
1 H	02/18	/2008	08:16:28	291637	205014400075	2	000 R	141.732000	3 GW0092644		20226	0	0	0.00
3	02/18	/2008	08:16:29	291637	Z05014400075	2					20226	0	0	0.01
1 H	02/18	/2008	08:16:30	291637	205014400075	2	000 R	141.732000	3 3		20226	0	0	0.02
3	02/18	/2008	08:16:30	291637	Z05014400075	2					20226	0	0	0.00
1 H	02/18	/2008	08:16:31	291637	205014400075	2	000 R	141.732000	3 GW0092644		20226	0	0	0.02
3	02/18	/2008	08:16:32	291637	Z05014400075	2					20226	0	0	0.01
1 H	02/18	/2008	08:16:32	291637	Z05014400075	2	000 R	141.732000	3 3		20226	0	0	0.00
3	02/18	/2008	08:16:34	291637	Z05014400075	2					20226	0	0	0.04
1 H	02/18	/2008	08:16:35	291637	Z05014400075	2	000 R	141.732000	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20226	0	0	0.01
3	02/18	/2008	08:17:24	291637	Z05014400075	2					20226	0	0	0.82
1 H	02/18	/2008	08:17:27	291637	205014400075	2	1000 R	141.732000	3 GW0092644	141.735	20226	0	0	0.05
7	02/18	/2008	08:37:08	291637	Z05014400075	2					20226	0	8	19.68
3	02/18	/2008	08:37:12	291637	205014400075	2					20226	0	0	0.07
08/2	0/2012	2					Time:	10:32:27				Pa	ge:	10

Type Code	Reason Code	Description
1		General Production Record
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode
	с	Coil Tailous sensor detects passage of end of Coil. Machine is automatically halter and End of Coil Scrap Code is reported for any remaining Material, unless Machine Operator running a Scrap Bundle with 900-Bundle Number, in which case that Scrap reason is reported for remaining material
	Ε	Machine was automatically halted because the programmed Coil Endpoint was reached. Machine Operator was prompted to cut the Coil at the pre-determined point prior to the entry to the roll former.
_	Н	Machine Operator halted the Machine manually
	.1	AL Series controller reports bundle completion, but Machine controller was not configured for Bundle Halt Mode, so Machine continues producing by immediately and automatically changing to next Bundle
	M	XL Series controller reports Manual Shear by Machine Operator
	0	XL Series controller halts Machine automatically due to Out-of-Orders. There were no more Orders to run that could be queued (Material Code or Product Code change, or simply no more Orders in memory)
	Р	Machine Operator removed power from the XL Series controller
	R	Machine Operator employed Remake function on Machine controller to replace Scrap parts
	T	XL Series controller automatically halted Machine due to Out of Tolerance part
	х	Machine Operator employed Decrease Quantity function to alert the system that a part previously counted as Scrap is actually Good Footage
	Y	Machine Operator employed Increase Quantity on Machine controller to replace scrap parts
	z	Machine coast-to-stop. This code will always accompany a 1C record for a Tailout situation
2		Production Record Related to Coil Change
	D	Machine Operator reported Coil was completely consumed
	L	Machine Operator reported new Coil loaded
	R	Machine Operator reported remaining Coil was returned to inventory
3		Machine Operator placed XL Series controller into Run mode
4		Machine Operator powered up XL Series controller
5		Order requested by Machine Operator from XL Series controller
6		XL Series controller reports an on-screen message (warning, error, notification)
7		Machine Operator reported a Downtime code



Wor	ld-class	Roll	Forming	Pro	oduction	Recor	ds						
TYPE R	/ DATE	TIME	ORDER	MATERIAL	BNDL QTY	PATT. /OPT.	LENGTH IN.	INV COIL	FOOTAGE IN.	EMPL ID			DOWN TIME
Dat	a for file	: \EC	LIPSE\HISTO	RY\PRD200802181.DBF									
٠.		i-profil											
	02/18/200				0					1	0	0	0.00
7	02/18/200			205014400075	2					20207	0	-	0.00 78.80
<u> </u>			96 291637 55 291637	Z05014400075	2					20207	0	0	0.12
1 T			55 291637	205014400075	2	000 R :	41.732000	0GW0092644		20207	0	0	0.00
	-							3					
1 M	02/18/200	8 07:27	47 291637	Z05014400075	2	000 R	141.732000	0GW0092644	156.481	20207	0	0	0.00
								3					
1 M	02/18/200	8 07:56:	24 291637	Z05014400075	2	000 R	L41.732000	3 GW0092644		20207	0	0	0.00
1 16	02/18/200	8 07 - 56 -	28 201637	Z05014400075	2	000 P	141 732000	3)GW0092644		20207	n	n	0.00
1 11	02/10/200	0 07.30.	20 231031	200014400010	2	000 10 .	.41.75200	3		20201			0.00
1 M	02/18/200	8 07:56:	33 291637	205014400075	2	000 R	141.732000	GW0092644		20207	0	0	0.00
								3					
1 M	02/18/200	8 07:56:	42 291637	Z05014400075	2	000 7	141.732000	0GW0092644		20207	0	0	0.00
								3					
7	02/18/200			205014400075	2					20207	0	7	38.53
3	02/18/200			205014400075 205014400075	2	000 P 1	141 72200	0GW0092644	_	20207	0	0	0.05
ı n	02/10/200	007.37.	33 291031	203014400073	4	000 K .	141.732000	3		20201		0	0.05
3	02/18/200	8 07:58:	12 291637	205014400075	2				_	20207	0	0	0.65
1 H	02/18/200	8 07:58:	15 291637	Z05014400075	2	000 R	141.732000	GW0092644		20207	_	0	0.05
								3					
7	02/18/200			Z05014400075	2					20226	0		17.33
3	02/18/200			Z05014400075	2					20226	0	0	0.79
1 H	02/18/200	8 08:16:	23 291637	Z05014400075	2	000 R	L41.732000	3 GW0092644		20226	0	0	0.01
3	02/18/200	8.08 - 1.6 -	24 291637	205014400075	2			3		20226	0	0	0.02
	02/18/200			205014400075	2	000 B	41.732000	0GW0092644		20226	0	0	0.02
								3					
3	02/18/200	8 08:16:	28 291637	Z05014400075	2					20226	0	0	0.05
1 H	02/18/200	8 08:16:	28 291637	205014400075	2	000 R	141.732000	GW0092644		20226	0	0	0.00
								3					
3	02/18/200			Z05014400075	2					20226	0	0	0.01
1 H	02/18/200	8 08:16:	30 291637	205014400075	2	U00 R :	141.732000	3 GW0092644		20226	0	0	0.02
3	02/18/200	8.08 - 1.6 -	30 291637	205014400075	2			3		20226	n	n	0.00
_	02/18/200			205014400075	2	000 R	141.732000	GW0092644		20226	0	0	0.02
								3					
3	02/18/200	8 08:16:	32 291637	205014400075	2					20226	0	0	0.01
1 H	02/18/200	8 08:16:	32 291637	Z05014400075	2	000 R	141.73200	0GW0092644		20226	0	0	0.00
								3					
3	02/18/200			205014400075	2	000 = -	141 30000	20000000		20226	0	0	0.04
1 H	02/18/200	8 08:16:	35 291637	Z05014400075	2	000 R	141.732000	3 GW0092644		20226	0	0	0.01
3	02/18/200	8 08:17:	24 291637	205014400075	2			,		20226	0	0	0.82
_	02/18/200			205014400075	_	1000 R :	141.732000	0GW0092644	141.735	20226	ō	0	0.05
								3					
7	02/18/200	8 08:37:	08 291637	Z05014400075	2					20226	0	8	19.68
3	02/18/200	8 08:37:	12 291637	205014400075	2					20226	0	0	0.07

Time: 10:32:27

08/20/2012

Type	Reason	Bestription
1		General Production Record
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode
	С	Coil Tailous, sensor detects passage of end of Coil. Machine is automatically halte and End of Coil Suray Gode is reported for any remaining Material, unless Machin Operator running a Scrap bundle with 900 Bundle Number, in which case that Scrap reason is reported for remaining material
	Ε	Machine was automatically halted because the programmed Coil Endpoint was reached. Machine Operator was prompted to cut the Coil at the pre-determined point prior to the entry to the roll former
	Н	Machine Operator halted the Machine manually
	i	XL Series controller reports Bundle completion, but Machine controller was not configured for Bundle Halt Mode, so Machine continues producing by immediately and automatically changing to next Bundle
	M	XL Series controller reports Manual Shear by Machine Operator
	0	XL Series controller halts Machine automatically due to Out-of-Orders. There were no more Orders to run that could be queued (Material Code or Product Code change, or simply no more Orders in memory)
	Р	Machine Operator removed power from the XL Series controller
	R	Machine Operator employed Remake function on Machine controller to replace
	T	XL Series controller automatically halted Machine due to Out of Tolerance part
	Х	macmine operator employed overrease quantity function to afercine system that a part previously counted as Scrap is actually Good Footage
	γ	Machine Operator employed Increase Quantity on Machine controller to replace scrap parts
	z	Machine coast-to-stop. This code will always accompany a 1C record for a Tailgut situation
2		Production Record Related to Coil Change
	D	Machine Operator reported Coil was completely consumed
	L	Machine Operator reported new Coil loaded
	R	Machine Operator reported remaining Coil was returned to inventory
3		Machine Operator placed XL Series controller into Run mode
4		Machine Operator powered up XL Series controller
5		Order requested by Machine Operator from XL Series controller
6		XL Series controller reports an on-screen message (warning, error, notification)
7	23	Machine Operator reported a Downtime code



World-class Roll Forming Production Records										
TYPE/ DATE TIME ORDER R	MATERIAL	BNDL QTY	PATT. /OPT.	LENGTH IN.	INV COIL NUMBER	FOOTAGE IN.	EMPL ID			DOWN
Data for file: \ECLIPSE\HISTORY\PF	RD200802181.DBF									
[1] Multi-profile Line										
S R 02/18/200806:00:00		0					1	0	0	0.00
4 02/18/200807:12:53		0					1	0	0	0.00
7 02/18/2008 07:18:48 291637	Z05014400075	2					20207	0	1	78.80
3 02/18/2008 07:18:55 291637	Z05014400075	2					20207	0	0	0.12
1 T 02/18/200807:18:55 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M 02/18/2008 07:27:47 291637	205014400075	2	000 R 1	41.732000	3)GW0092644	156.481	20207	0	0	0.00
1 M 02/18/200807:56:24 291637	205014400075	2	00 R 1	41 732AA	3)GW0092644		20207	Λ	0	0.00
1 11 02/10/2000 07.30.24 231031	203014400073	-	0 1 1	11.752000	3		20201	v		0.00
1 M 02/18/200807:56:28 291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20207	0	0	0.00
1 M 02/18/2008 07:56:33 291637	205014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M 02/18/200807:56:42 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20267	0	0	0.00
7 02/18/200807:57:27 291637	205014400075	2			_		20207	0	7	38.5
3 02/18/200807:57:30 291637	205014400075	2					20207	0	0	0.05
1 H 02/18/200807:57:33 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.05
3 02/18/2008 07:58:12 291637	Z05014400075	2					20207	0	0	0.65
1 H 02/18/200807:58:15 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.0
7 02/18/2008 08:15:35 291637	Z05014400075	2			_		20226	0	7	17.33
3 02/18/200808:16:22 291637	205014400075	2					20226	0	0	0.79
1 H 02/18/200808:16:23 291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.0
3 02/18/2008 08:16:24 291637	205014400075	2					20226	0	0	0.02
1 H 02/18/200808:16:25 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.02
3 02/18/2008 08:16:28 291637	Z05014400075	2					20226	0	0	0.05
1 H 02/18/200808:16:28 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.00
3 02/18/2008 08:16:29 291637	205014400075	2					20226	0	0	0.0
1 H 02/18/2008 08:16:30 291637	205014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.02
3 02/18/2008 08:16:30 291637	205014400075	2					20226	0	0	0.00
1 H 02/18/2008 08:16:31 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.02
3 02/18/200808:16:32 291637	205014400075	2					20226	0	0	0.01
1 H 02/18/2008 08:16:32 291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.00
3 02/18/2008 08:16:34 291637	205014400075	2					20226	0	0	0.04
1 H 02/18/2008 08:16:35 291637	205014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.0
3 02/18/2008 08:17:24 291637	205014400075	2					20226	0	0	0.82
1 H 02/18/2008 08:17:27 291637	Z05014400075	2	1000 R 1	41.732000	GW0092644	141.735	20226	0	0	0.05
7 02/18/2008 08:37:08 291637	Z05014400075	2					20226	0	8	19.68
3 02/18/2008 08:37:12 291637	205014400075	2					20226	0	0	0.07
08/20/2012			Time:	10:32:27				Pa	ge:	1

Type	Reason	Description
1	1	General Production Record
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode
	С	Coil Tailout, sensor detects passage of end of Coil. Machine is automatically halte and End of Coil Scrap Code is reported for any remaining Material, unless Machin Operator running a Scrap Bundle with 900 Bundle Number, in which case that Scrap reason is reported for remaining material
	E	Machine was automatically halted because the programmed Coil Endpoint was reached. Machine Operator was prompted to cut the Coil at the pre-determined point prior to the entry to the roll former
	н	Machine Operator halted the Machine manually
	i	XL Series controller reports Bundle completion, but Machine controller was not configured for Bundle Halt Mode, so Machine continues producing by immediately and automatically changing to next Bundle
	M	XL Series controller reports Manual Shear by Machine Operator
	i.	VIL Socione and Maria Maria Maria and American Society of Conserts. There
	0	were no more Orders to run that could be queued (Material Code or Product Code change, or simply no more Orders in memory)
	Р	Machine Operator removed power from the XL Series controller
	R	Machine Operator employed Remake function on Machine controller to replace Scrap parts
	T	XL Series controller automatically halted Machine due to Out of Tolerance part
	х	Machine Operator employed Decrease Quantity function to alert the system that a part previously counted as Scrap is actually Good Footage
	Y	Machine Operator employed Increase Quantity on Machine controller to replace scrap parts
	z	Machine coast-to-stop. This code will always accompany a 1C record for a Tailou situation
2		Production Record Related to Coil Change
	D	Machine Operator reported Coil was completely consumed
	T.	Machine Operator reported new Coil loaded
	R	Machine Operator reported remaining Coil was returned to inventory
3		Machine Operator placed XL Series controller into Run mode
4		Machine Operator powered up XL Series controller
5		Order requested by Machine Operator from XL Series controller
6		XL Series controller reports an on-screen message (warning, error, notification)
7	8	Machine Operator reported a Downtime code

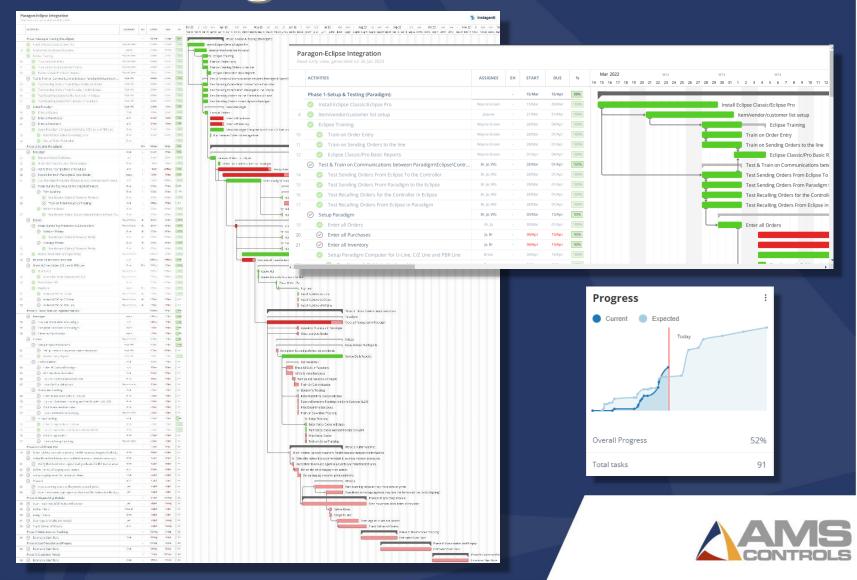


Wor	ld-class	Roll F	orming	Pre	oduction	Recor	ds						
TYPE R	/ DATE	TIME	ORDER	MATERIAL	BNDL QTY	PATT. /OPT.	LENGTH IN.	INV COIL NUMBER	FOOTAGE IN.	EMPL ID	SCR CD		DOWN TIME
Dat	a for file	: \ECLI	rpsE\HISTO	RY\PRD200802181.DBF									
ı	1] Multi	-profile	Line										
S R	02/18/2008	8 06:00:00			0					1	. 0	0	0.00
7	02/18/2008	3 07:18:48	291637	205014400075	2					20207	0	1	78.80
<u> </u>		07:10:55		203014400073	2					20201	-	-	0.12
1 T	02/18/2008	8 07:18:55	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	3 07:27:47	291637	205014400075	2	000 R 1	41.732000	3 3	156.481	20207	0	0	0.00
1 M	02/18/2008	3 07:56:24	291637	Z05014400075	2	000 R	11.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	8 07:56:28	291637	205014400075	2	000 R 1	41. 32000	3)GW0092644		20207	. 0	0	0.00
1 M	02/18/2008	3 07:56:33	291637	205014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	3 07:56:42	291637	205014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
7	02/18/2008	3 07:57:27	291637	Z05014400075	2					20207	0	7	38.53
3	02/18/2008	3 07:57:30	291637	Z05014400075	2					20207	0	0	0.05
1 H	02/18/2008	8 07:57:33	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20207	0	0	0.05
3	02/18/2008	3 07:58:12	291637	Z05014400075	2					20207	0	0	0.65
1 H	02/18/2008	3 07:58:15	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20207	0	0	0.05
7	02/18/2008	8 08:15:35	291637	Z05014400075	2					20226	. 0	7	17.33
3	02/18/2008	3 08:16:22	291637	Z05014400075	2					20226	0	0	0.79
1 H	02/18/2008	8 08:16:23	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		0226	0	0	0.01
3	02/18/2008	3 08:16:24	291637	Z05014400075	2					2022	0	0	0.02
1 H	02/18/2008	8 08:16:25	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.02
3	02/18/2008	3 08:16:28	291637	Z05014400075	2					20226	. 0	0	0.05
1 H	02/18/2008	3 08:16:28	291637	205014400075	2	000 R 1	41.732000	GW0092644 3		20226	. 0	١	0.00
3	02/18/2008	8 08:16:29	291637	Z05014400075	2					20226	0	0	0 01
1 H	02/18/2008	8 08:16:30	291637	205014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.0
3	02/18/2008			Z05014400075	2					20226	0	0	0.00
1 H	02/18/2008	8 08:16:31	291637	205014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.02
3	02/18/2008	3 08:16:32	291637	205014400075	2					20226	0	0	0.01
1 H	02/18/2008	8 08:16:32	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.00
3	02/18/2008	3 08:16:34	291637	205014400075	2					20226	0	0	0.04
1 H	02/18/2008	8 08:16:35	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.01
3	02/18/2008	3 08:17:24	291637	205014400075	2					20226	0	0	0.82
1 H	02/18/2008	8 08:17:27	291637	205014400075	2	1000 R 1	41.732000	GW0092644 3	141.735	20226	0	0	0.05
7	02/18/2008	3 08:37:08	291637	Z05014400075	2					20226	0	8	19.68
3	02/18/2008	3 08:37:12	291637	205014400075	2					20226	0	0	0.07
08/2	0/2012					Time:	10:32:27				Pa	ge:	10

Type Code	Reason Code	Description
1		General Production Record
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode
	С	Coil Jailous sensor detects passage of end of Coil. Machine is automatically halter and End of Coil Scrap Code is reported for any remaining Material, unless Machine Operator running a Scrap Bundle with 900 Bundle Number, in which case that Scrap reason is reported for remaining material
	Ε	Machine was automatically halted because the programmed Coil Endpoint was reached. Machine Operator was prompted to cut the Coil at the pre-determined point prior to the entry to the roll former
	н	Machine Operator halted the Machine manually
	i	XL Series controller reports Bundle completion, but Machine controller was not configured for Bundle Halt Mode, so Machine continues producing by immediately and automatically changing to next Bundle
	M	XL Series controller reports Manual Shear by Machine Operator
	0	XL Series controller halts Machine automatically due to Out-of-Orders. There were no more Orders to run that could be queued (Material Code or Product Code change, or simply no more Orders in memory)
	Р	Machine Operator removed power from the XL Series controller
	R	Machine Operator employed Remake function on Machine controller to replace Scrap parts
	T	XL Series controller automatically halted Machine due to Out of Tolerance part
	х	Machine Operator employed Decrease Quantity function to alert the system that a part previously counted as Scrap is actually Good Footage
	Y	Machine Operator employed Increase Quantity on Machine controller to replace scrap parts
	z	Machine coast-to-stop. This code will always accompany a 1C record for a Tailous situation
2		Production Record Related to Coil Change
	D	Machine Operator reported Coil was completely consumed
	L	Machine Operator reported new Coil loaded
	R	Machine Operator reported remaining Coil was returned to inventory
3		Machine Operator placed XL Series controller into Run mode
4		Machine Operator powered up XL Series controller
5		Order requested by Machine Operator from XL Series controller
6		XI Series controller reports an on-screen message (warning, error, notification)
7		Machine Operator reported a Downtime code



ERP-Integration Gantt Chart



Mistake-Proofing Tools



Mistake-Proofing Tools

- Order & Part Data
- Scheduling
- Coil Selection
- Machine Setup
- Data Collection



How Does Eclipse Help?

Mistake-proofing

- No more data entry errors
- Automation can be used to ensure correct tooling is loaded
- Orders go to the correct line
- Coil validation prevents incorrect material usage
- Bar codes prevent data entry mistakes throughout the process



Mistakes Happen!

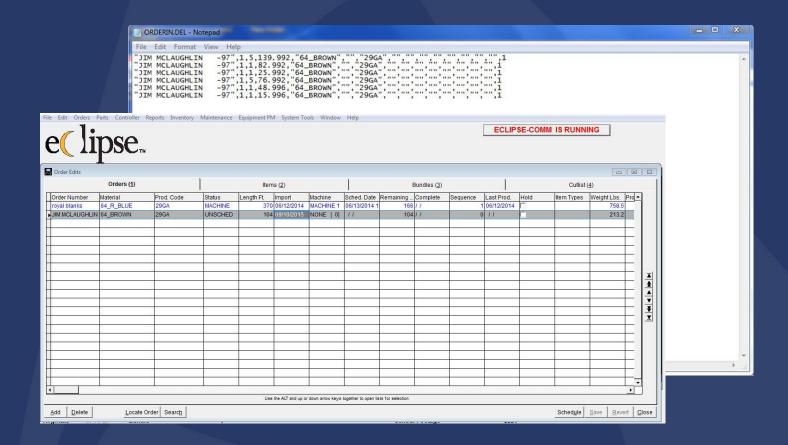
- Wrong Order (Data entry)
 - 20 orders, 10 items each per day = 400 entries/day.
 - At 0.01% error rate, average 1 error every 25 days.
 - Trained data entry staff have 0.2-0.8% error rates (errors every 1.25 days or worse)
- Wrong punch pattern or profile
- Wrong coil
- Wrong machine



Wrong Orders &

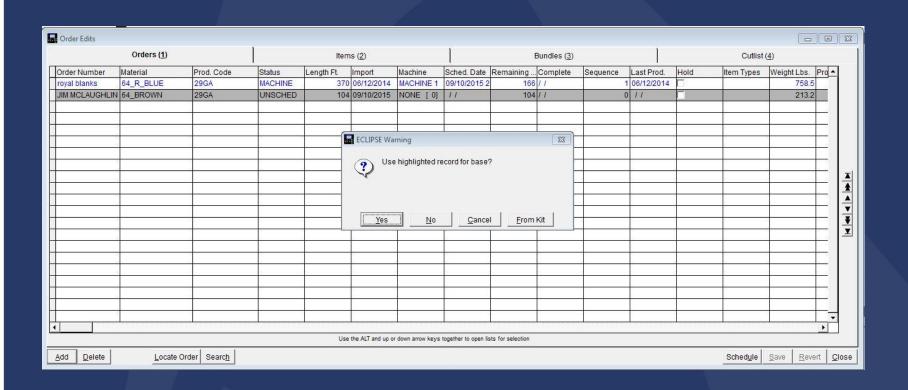
The Eclipse Solution



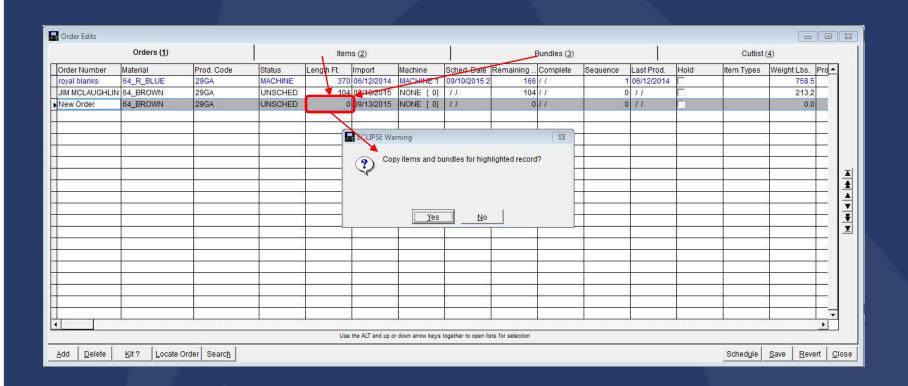


Import Orders





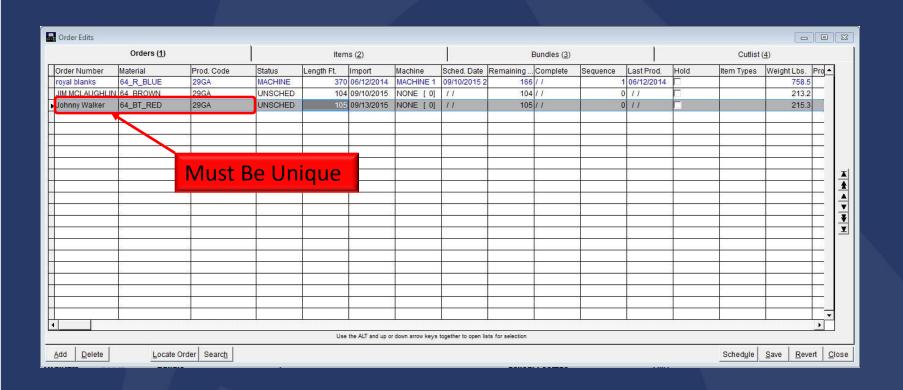




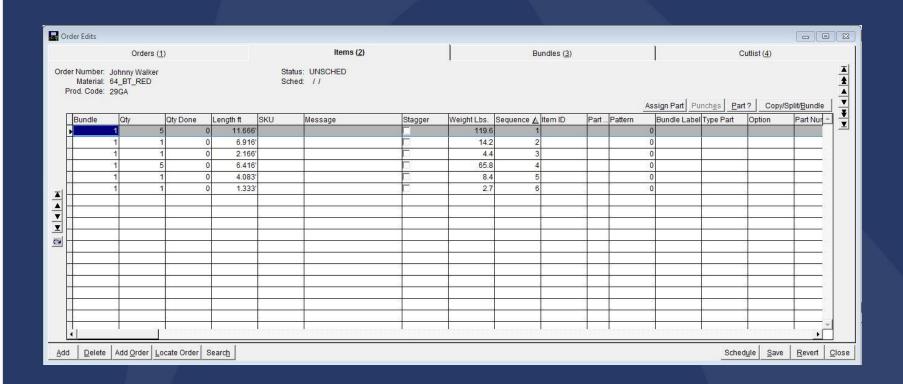




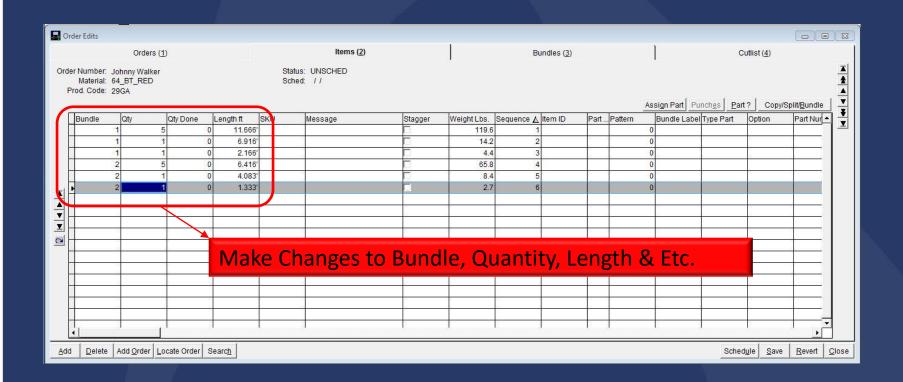




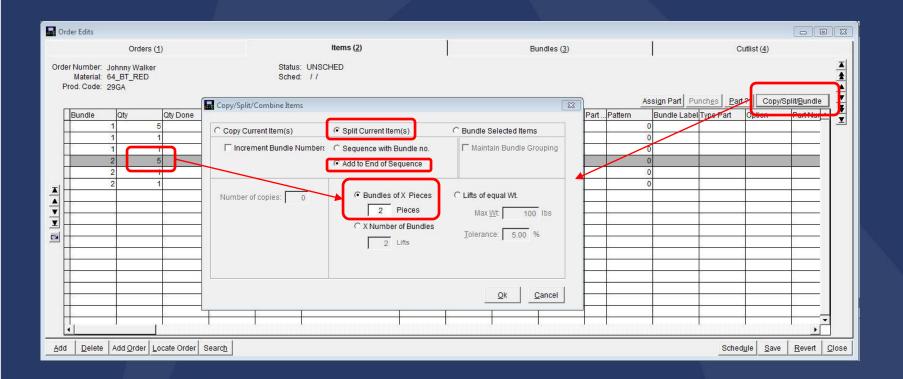




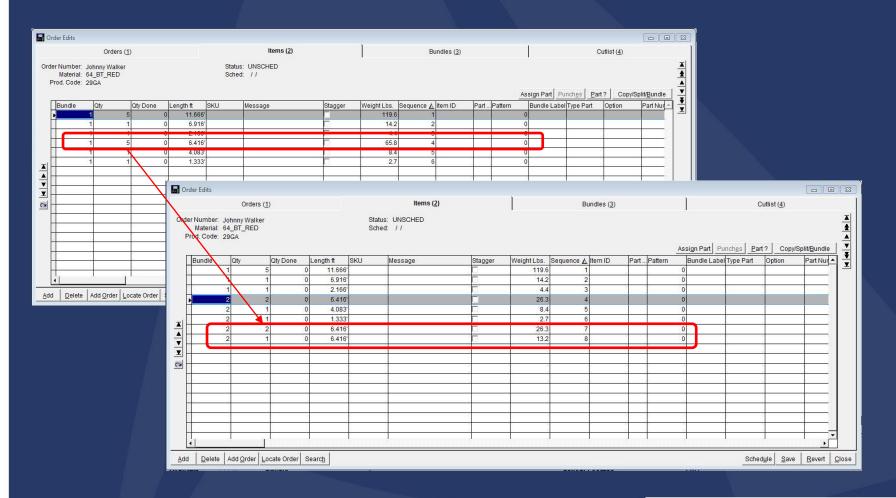




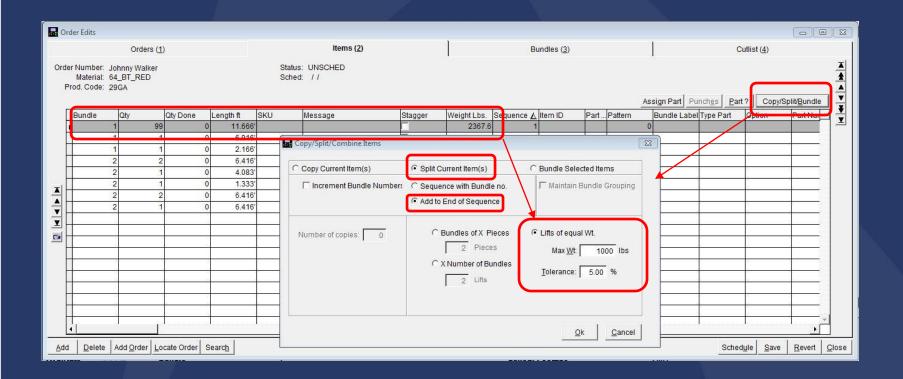




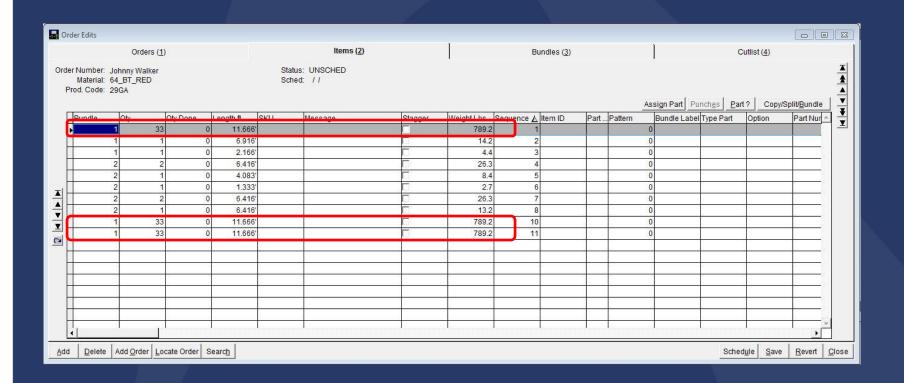














Order Data-Reports

Seq # Machine	Order # Training Room	Material	Prod	Code	Туре	We	eight	Lbs.	Length Ft.
3	Johnny Walker	ZH5016400150 NEW MATERIAL FROM	EDMP ORDER					3326	1663.38
4	Jim Beam	ZH5016400150 NEW MATERIAL FROM	DUO5 ORDER	TEST	MATE	RIAL		984	492.12
			libto	rial Tot	al:			4311	2155.51
5	291500	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATE	LAIR		509774	169924.85
6	296589	207004930050 NEW MATERIAL FROM	DUO5 ORDER	TEST	MATE	RIAL	2	289806	96602.16
7	292506	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATE	LALS		510093	170031.15
8	296079	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATE	RIAL	3	399365	133121.78
9	294159	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATE	RIAL		108188	136062.72
			Mate	rial Tot	al:		2:	117228	705742.68
10	293948	205013470115 661	661	64 5	: מעד	1.15B	MI	9153	4921.25
			Mate	rial Tot	al:	-		9153	4921.25
11	294471	207004930050 NEW MATERIAL FROM	DUO5 ORDER	TEST	HATE	RIAL	4	408188	136062.72
12	Set Up Info	207004930050 NEW MATERIAL FROM	DUO5 CRDER	TES1	HATE	RIAL	2	285731	95243.90
			Mate	rial Tot	al:	30	-	593919	231306.62
13	291813	Z05013470115 661	661	64 5	: מעדנ	1.15B	MI	6407	3444.87
			Mate	rial Tot	al :	20-		6407	3444.87
				To	tal:	-	28	331019	947570.94

Order Sequence Report

Forward Looking



Order Data-Reports

Machine	04-311111	ulator [1]		2011-0357		- 3	25 B)
Order f	Brown2	Material 20 Co		Product Code 123		Type	Seq#
3.57/2	prownz omer Name	20 Ga	uge Steel	123	Truck Numb		
Cust	omer Name		Work Order		Truck Numb	per	
1.06	Qty	Length	Part Number	Option	Total Length Ft.	Total Weight Lbs.	Inits
	100	12.00 (1° 0.000°)	testeroo 3234104	R	100.00	Weight Lbs.	
	Order Footage	100.00					
	Order Weight:	0.00	Lbs.				
Order h		Material		Product Code		Type	Seq#
	Brown3	20 Ga	uge Steel	123			
Cust	omer Name		Work Order		Truck Numb	oef.	
					Total	Total	
Lift	Qty	Length	Part Number	Option	Length Ft.	Weight Lbs.	Inite
1	100	12.00 (1"0.000")	testeroo 3234104	R	100.00	0.0	10
	Order Footege: Order Weight:	100.00					

Order Schedule Report

Forward Looking

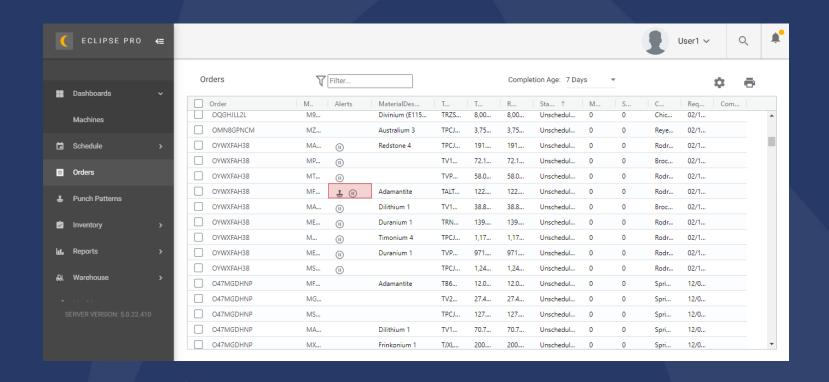


Order Data-Reports

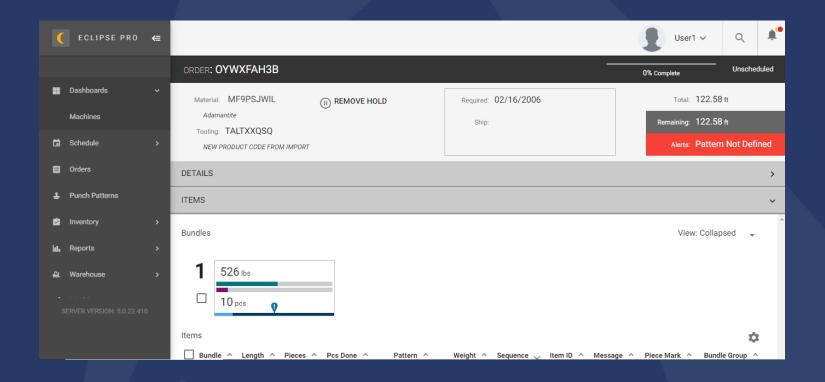
Bundle ld: Coll Nbr: Coll Material: Heat Number:	Company	Nam	e goes here		Order Summary Dates between 12/08/2014 and 12/15/2014											
Dot No. Coli Material: Heat Number Modelline: Total Total Net Net Recialmed Scrap Ft. Scra	Order:	400000	179	Mater	tal: Z 070	004930050		Pcode	e: DUO5							
Machine: Fart Number Opt Good Ft. Good Lbs. Scrap Ft. Scrap Lbs. Scrap Ft. Scr	Bundle Id:															
Bundle Qty	Coll Nbr. Machine:			Coll Material:												
Dock						Opt						Bundle Code	Time & Duration			
Coli Material: No Coll MATCH					loyee;											
Machine: Training Room [51] Total Net Net Reciaimed Sorap Ft. Sorap Los. Sorap Ft. S				Sent to machine #S1			0.00	0.00	0.00	0.00	0.000	4	11:07:57			
Bundle Qfy Length Part Number Opt Good Ft. Good Lbs. Scrap Ft. Scrap Lbs					NO COIL	MATCH		Heat Numb	er.							
Date: 12/11/2014 Shift: 1						Ont						Rundle Code	Time & Duratio			
4 100 11.811 ft R 1181.10 3543.30 -1191.10 -3543.30 1181.100 09:41:13 0.000 09:44:23 1181.100 09:44:23						Opt						Durine Otoc	Time a Darago			
Total for Coll: 1417.32 4261.98 .1133.32 .3389.98 1181.100 Coll Nbr: 1100		250.000			0,00.2013	R	1181.10	3543.30	-1181.10	-3543.30	1181.100		09:41:13			
Coll Nbr. 1100 Coll Material: No Coll MATCH Heat Number.			11.811 1					708.66	47.78	143.34			09:44:23			
Coll Material: No Coll MATCH Heat Number:					Total fo			4261.98	-1133.32	-3389.96	1181.100					
Bundle Qty Length Part Number Opt Good Pt. Good Lbs. Scrap Ft. Scrap Lbs. Scrap Ft. Bundle Code Time & Duration Date: 12/11/2014 Shift: 1 Employee: 5001 R 1181.10 3543.30 -1181.10 -3543.30 1181.100 09:51:05 Employee: 5001 R 1181.10 3543.30 -1181.10 3543.30 1181.100 09:51:05 Employee: 5001 R 12/11/2014 Shift: 1 Employee: 5001 Employee: 5001 Employee: 5001 R 12/11/2014 Shift: 1 Employee: 5001 R 12/11/2014 Shift: 1 Employee: 5001 Employee: 5001 R 12/11/2014 Shift: 1 Employee																
Bundle Qty Length Part Number Opt Good Ft. Good Lbs. Scrap Ft. Scrap Lbs. Scrap Ft. Bundle Code Time & Duration 2543.30 -1181.10 -3543.30 -1181.10 -1181.10 -1181.10 -1181.10 -1181.10 -1181.10 -1181.10 -1181.10 -1181.10 -1181.10	Machine:	Trail	ning Room [51]					-	11-1	****	200					
Bundle Cdy Length Part Number Opt Shift: 1 Employee: 5001 R 1181.10 3543.30 -1181.10 -3543.30 1181.100 09:51:05 Shift: 1 Shift: 1 Employee: 5001 R 1181.10 3543.30 -1181.10 -3543.30 1181.100 09:51:05 Shift: 1 Sh																
7 100 11.811 ft R 1181.10 3543.30 -1181.10 -2543.30 1181.100 09:51:05 Bundle ld: 3B169D63 Coll Material: NO COll MATCH Heat Number: Machine: Training Room [51] Total Total Net Net Reclaimed Bundle Qty Length Part Number Opt Good Ft. Good Lbs. Scrap Ft. Scrap Lbs. Scrap Ft. Bundle Code Time & Duration Date: 12111/2014 Shift: 1 Employee: 5001 8 11 11.811 ft R 129.92 389.76 28.92 96.77 0.000 10:08:06 Total for Coll: 128.82 388.78 28.82 88.77 0.000						Opt	200211	0.000 2.00		Colup Loo.		Bundle Code	Time & Duration			
Total for Coll: 1181.10 3643.30 -1181.10 3643.30 1181.100		2000		Emp	loyee. suu1	000	*****	2542.20	4404.40	3543.35	4404 400		00-54-05			
Description	-	100	11.011 %		Total fo		400000000000000000000000000000000000000		19 312 19	Section and the section of the	507,600,000		03.51.05			
Machine: Training Room [51] Total Total Net Net Reclaimed Bundle Qfy Length Part Number Opt Good Ft. Good Lbs. Scrap Ft. Scrap Lbs. Scrap Ft. Bundle Code Time & Duration Date: 12/11/2014 Shift: 1 Employee: 5001 8 11 11.811 ft R 129.92 389.76 28.92 86.77 0.000 10:08:06 Total for Coll: 128.82 389.79 28.82 86.77 0.000	Bundle ld:	3B16	69D63		Total IC	a cos.	1101.10	334.33		1000000000						
Total Total Net Net Reclaimed Bundle Qty Length Part Number Opt Good Pt. Good Lbs. Scrap Pt. Scrap Lbs. Scrap Pt. Bundle Code Time & Duration Date: 12/11/2014 Shift: 1 Employee: S001 R 129.92 389.76 28.92 86.77 0.000 10:08:06 Total for Coli: 128.92 389.78 28.82 88.77 0.000	Coll Nbr.	1		Coll Material:	NO COIL	MATCH		Heat Numb	 er.							
Bundle Offy Length Part Number Opt Good Ft. Good Lbs. Scrap Ft. Scrap Ft. Bundle Code Time & Duration Date: 12/11/2014 Shift: 1 Employee: 5001 R 129.92 389.76 28.92 96.77 0.000 10:08:06 Total for Coll: 128.92 389.76 28.92 86.77 0.000	Machine:	Train	ning Room [51]													
Date: 12/11/2014 Shift: 1 Employee: S001 R 129.92 389.76 28.92 96.77 0.000 10:08:06 8 11 11.811 ft Total for Coll: 128.92 389.76 28.82 86.77 0.000	Rundle	ON	Length	Part Number		Ont					- Committee	Bundle Code	Time & Duration			
8 11 11.811 ft R 129.92 389.76 28.92 95.77 0.000 10:08:06 Total for Coll: 128.92 389.78 28.82 88.77 0.000				50 THE R. P. LEWIS CO., LANSING, MICH.		-						Danac occ	Time & Durate			
1947-00-1966 (1946-00) (1949-00) (1949-00) (1949-00)	8	11	11.811 1			R	129.92	389.76	28.92	86.77	0.000		10:08:06			
19/13/2015 Time: 5:56:14PM Page					Total fo	or Coll:	129.92	389.78	28.92	88.77	0.000					
19/13/2015 Time: 5:56:14PM Page																
	09/13/201	5		Time: 5:56:14PM									Page			

Order Summary Report Looking in Past

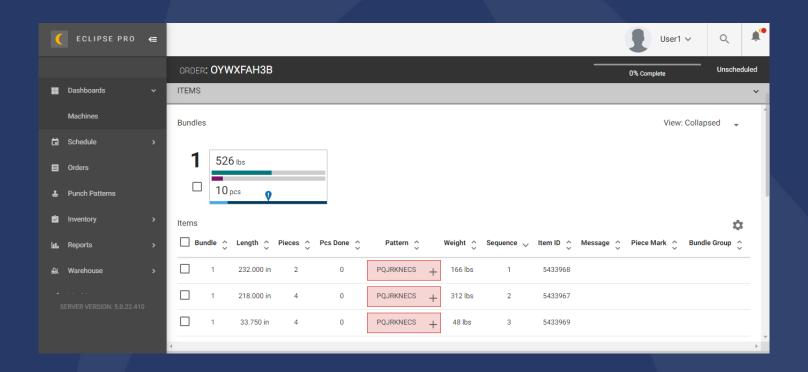




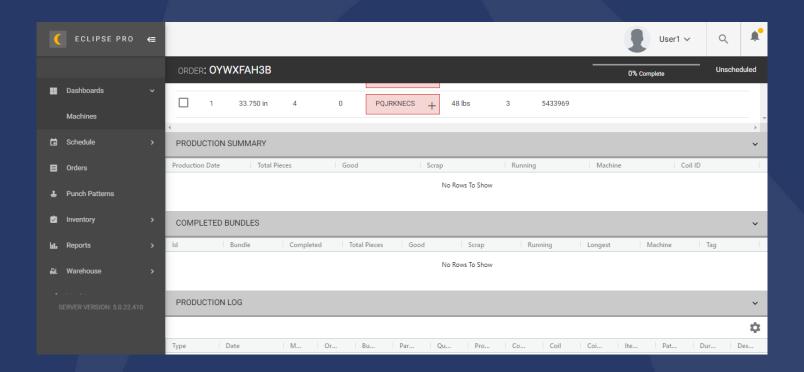














Wrong Part/Patterns

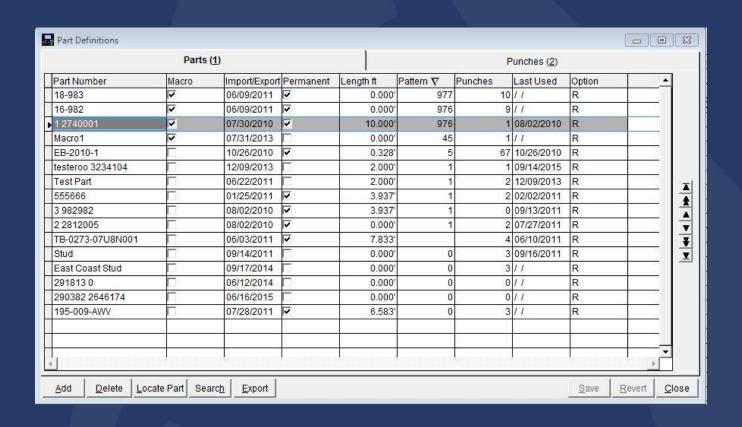
The Eclipse Solution





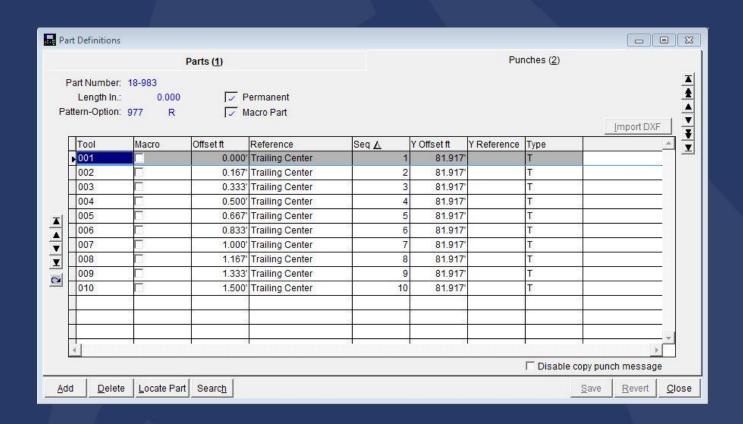
Tool Setup





Part Definitions

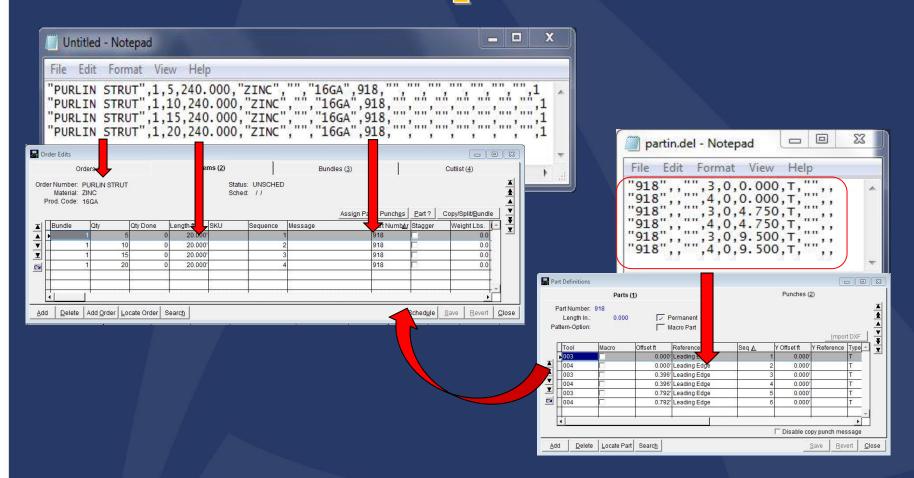




Part Definitions-Punches

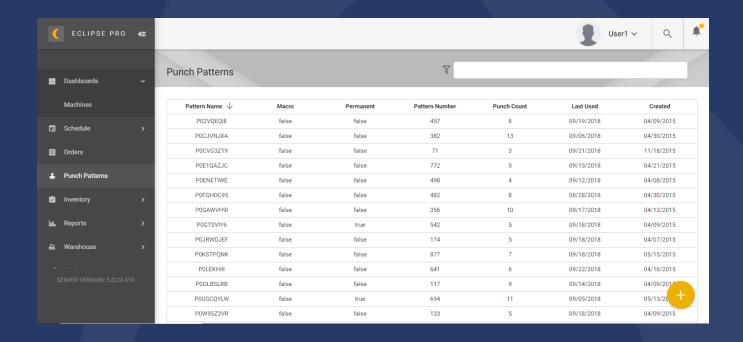


Part Data-Import

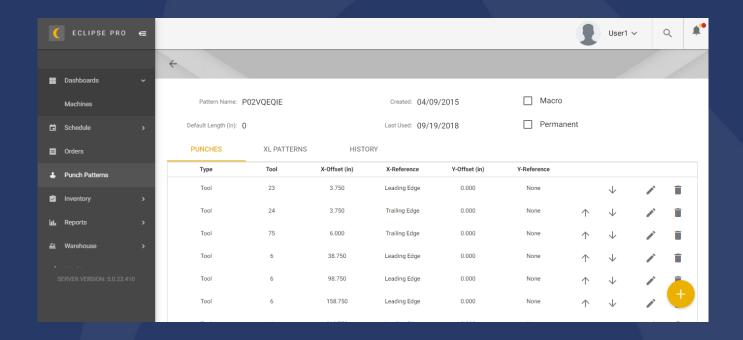


Part Data-Import

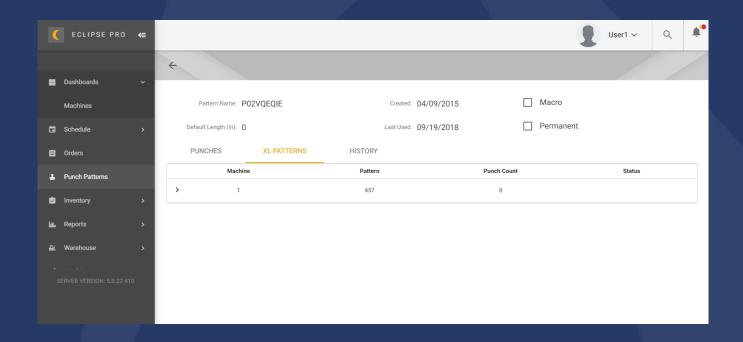




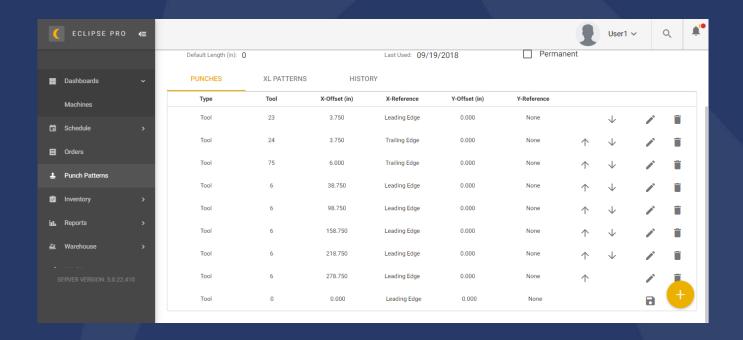














Part Data-Eclipse

Eclipse Manages the Pattern at the Controller

Eclipse assigns the pattern #'s automatically

Eclipse adds & deletes patterns (True/False)

Part #'s up to 30 characters



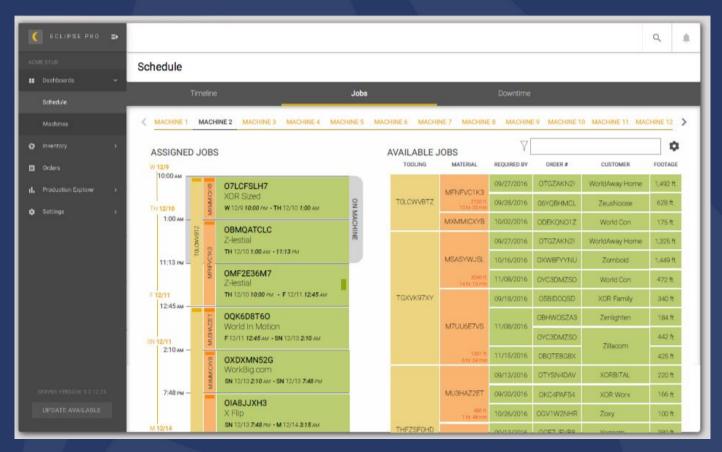


	Schedule Orders																			
		Viev	w All Orders (1)			Schedule Filtered Orders (2)										Set Filters (3)				
X.	Order Num	Prod. Code	Material	Sched. Date	Status	Length Ft.	Machine	Im	nport	Hold	Remaining	Sequence	Prod Desc	Last Prod.	Customer I	Work Order	Truck Num	Re ▲		
±	292583	EDMP	ZH5015400150	11	UNSCHED	5315	NONE [0] 03	3/13/2008		5315	0	NEW PRODU	03/14/2008	33		22	11		
	BOB	EDMP	95602700	11	UNSCHED	7200	NONE [0] 06	6/18/2014		5690	0	NEW PRODU	12/10/2014				11		
V	Test 10	DU05	Z07004930050	11	UNSCHED	102047	NONE [0] 12	2/08/2014		101480	0	Wall Angle 2	03/11/2015	37	20	27 28	11		
*	Set Up Info	DU05	Z07004930050	11	UNSCHED	95244	NONE [0] 09	9/17/2014	ři.	95244	0	Wall Angle 2	09/17/2014	8		9	11		
Y	296079	DU05	Z07004930050	11	UNSCHED	136060	NONE [0] 07	7/14/2008		133119	0	Wall Angle 2	03/09/2015				11		
2	294471	DU05	Z07004930050	LL	UNSCHED	136060	NONE [0] 05	5/21/2008		136060	0	Wall Angle 2	06/15/2008	0)		0)	11		
54	292506	DUO5	Z07004930050	11	UNSCHED	170075	NONE [0] 03	3/11/2008		170028	0	Wall Angle 2	06/18/2014				11		
νI	291500	DU05	Z07004930050	11	UNSCHED	170075	NONE [0] 02	2/06/2008		169921	0	Wall Angle 2	06/18/2014				11	<u>*</u>	
₩	294440	661	Z05013470115	11	UNSCHED	4920	NONE [0] 05	5/20/2008		4920	0	64 STUD 1.1	05/23/2008	33		33	11	1	
	293948	661	Z05013470115	11	UNSCHED	27,10,0,0,0	NONE [5/05/2008		4920	0	64 STUD 1.1	05/19/2008				11		
	293576	661	Z05013470115	1.1	UNSCHED	1181	NONE [0] 04	4/21/2008		1181	0	64 STUD 1.1	04/29/2008				11	<u> </u>	
	291813	661	Z05013470115	H	UNSCHED	2953	NONE [0] 02	2/18/2008		2953	0	64 STUD 1.1	02/26/2008				11	¥	
	293216	DU05	Z07004930050	1.1	SEQD	170075	Training F	200104	4/09/2008		170075	5	TEST MATER	25-26- (2000) A CLOVING				11	ı ⊒	
	294159	DU05	Z07004930050	11	SEQD	136060	Training F	200105	5/12/2008		136060	4	TEST MATER	05/30/2008	92		97	11		
	296589	DUO5	Z07004930050	09/14/2015 1	and the second second	102045	Training F	Rooi 07	7/29/2008		96600		TEST MATER	The state of the s				11		
	Jim Beam	DU05	ZH5016400150	09/14/2015 1	MACHINE	492	Training F	Root 03	3/09/2015		492	2	TEST MATER	11				11		
	Johnny Walk	EDMP	ZH5016400150	09/14/2015 1	MACHINE	1742	Training F	Rooi 03	3/09/2015		1075	1	NEW PRODU	09/14/2015	22	4	23	1.1		
					2 3			- 9			0			10	22	10	22			
		7	7		5 Y			70			- 1	7				1	70			
	1		ļ.,,			,		!_			4 .			ļ				▼		
			temaining: 12516		Nun	nber of Orders I	Displayed:	21	e e										49	
			emaining: 36937																_	
Sequence: (4) Descending Auto-Push Enabled Filter: STATUS Min. Footage: NO FILTER											<u>E</u>	dit								
100			10000			5 323												Re	eturn	
	nine: (5) ning Room	-	Machine Footage 98167	Y	O9/14/2015	12:00:00 AM									3	Apply button a			rint	
Rec	1 1	Rel <u>e</u> ase Sch	edule Recall As	ssign Unassi	ign Se <u>n</u> d											Locate	Order Searc	h CI	ose	

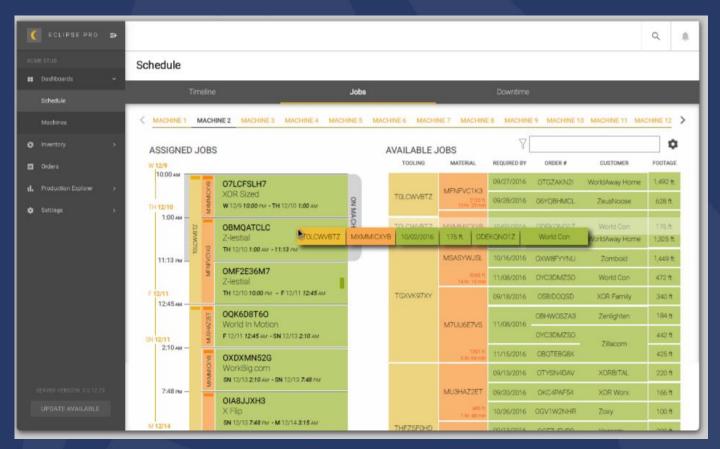


Orders deleted at the Controller will be set as **Unscheduled** in Eclipse

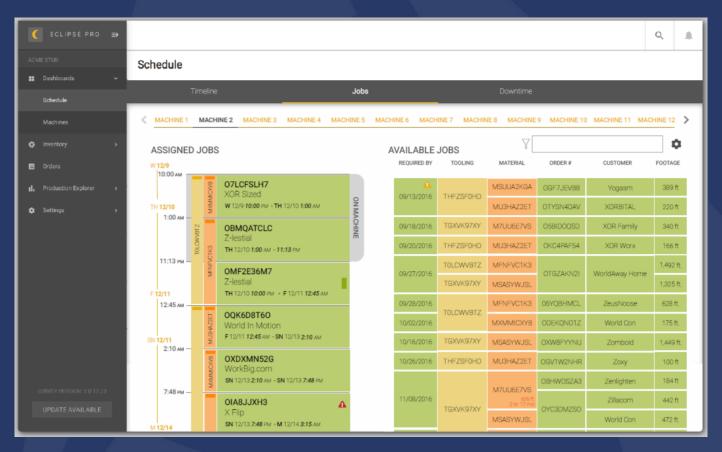






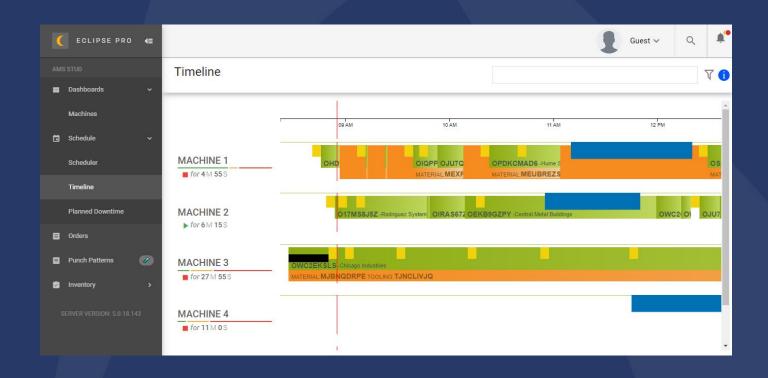








Predictive Scheduling





Predictive Scheduling



Eclipse Pro



Wrong Coil

The Eclipse Solution



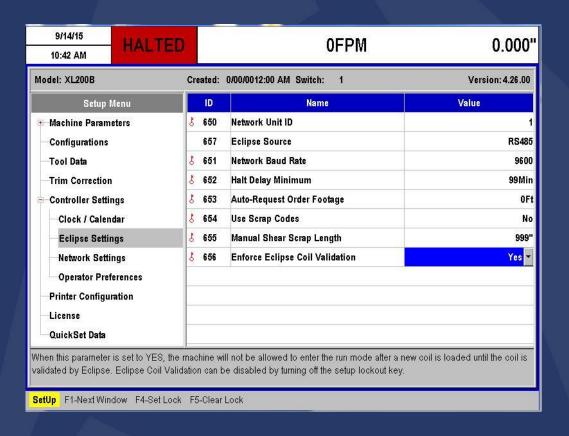
How Does Eclipse Help?

Perfect accounting & inventory control

- Exact coil inventories
 - Usage totals accurate to a fraction of an inch
 - No data logging errors if using bar-codes and coil ID validation
- Exact finished goods tracking
 - Know exactly what was produced in each bundle
 - Great tool for dealing with customer complaints
 - Traceability: what coil was used to produce each part



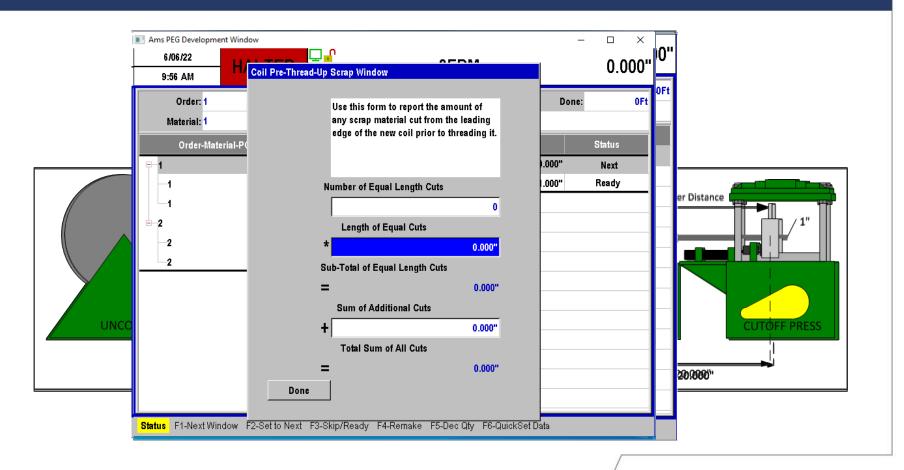
Coil-Validation



XL200 Controller Setup Screen



Coil-Validation





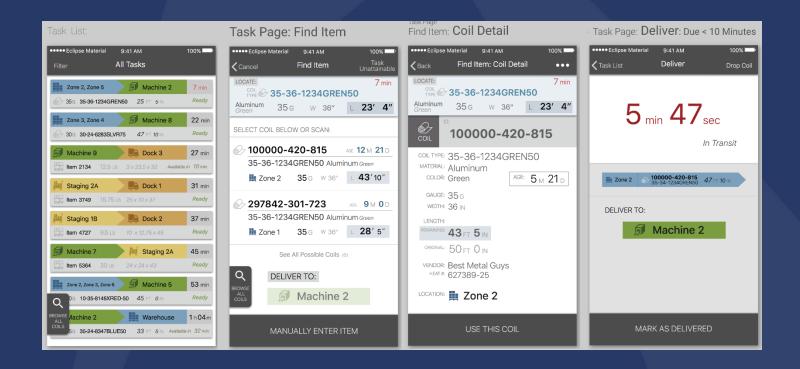
Coil-Inventory

oil Number A	Material	Description	Date In				Completed Weight Lbs.				Other Adjust Ft.			Cos
678	6.25 20GA	G350	12/21/2010	09/14/2011		555.025			162.608'	0.000			0.0000	-
679	95602700	Training	03/16/2011	11	4500.000'	218.110	4005.000 lb	100000000000000000000000000000000000000	115.828'	0.000'	-9.843	0.8900 Lbs/Ft	5000.0000	
680	95602700	Training	03/16/2011	11	4500.000'	90.000	4000.000 lb		0.310	3.603	-7090.000'	0.8889 Lbs/Ft	5000.0000	-
23456	20 Gauge Steel	A MARK CONTRACT CONTRACTOR	04/08/2011	11	4500.000'	259,666	4005.000 lb		32.693'	3.933'	-27.622'	0.8900 Lbs/Ft	5000.0000	-
90123	18 Gauge Steel	20 Gauge Steel	04/08/2011	11	3600.000'	0.000	3700.000 lb		0.000°	200.000'	0.000	1.0278 Lbs/Ft	2875.0000	-
9Y-J6UW8X-OLR2V	Z05016400150	TRAINING	06/15/2015	11	500.000'	0.000	1000.000 lb		0.000'	0.000'	0.000	2.0000 Lbs/Ft	2000.0000	
YZ-E747TJ-QM3KB	Z05016400150	TRAINING	06/15/2015	11	4000.000"	0.000	8000.000 lb	N	0.000	0.000	0.000'	2.0000 Lbs/Ft	STATE OF THE STATE	
6P-DLFPUR-1UCMR	Z05016400150	TRAINING	06/15/2015	11	4000.000"	0.000	8000.000 lb	A 1919/03/03/12/12/13	0.000	0.000'	0.000	2.0000 Lbs/Ft	10000.0000	100
ESTCOIL02	Z05003480040	G350	09/08/1999	11	1000.000'	0.000	0.000 lb		0.000	0.000'	0.000'	0.0000 Lbs/Ft		0 /
ESTCOIL03	Z05014100050	G350	09/08/1999	11	2000.000'	0.000	0.000 lb	USE SECTION OF THE PARTY OF THE	0.000	0.000'	0.000	0.0000 Lbs/Ft		0 /
ESTCOIL04	Z05014100050	G350	09/08/1999	11	2000.000*	0.000	0.000 lb	2000.000	0.000'	0.000	0.000	0.0000 Lbs/Ft		0 /
													2 2	

Coil Inventory Tab



Coil-Inventory-Handling



Beta-New Phone App

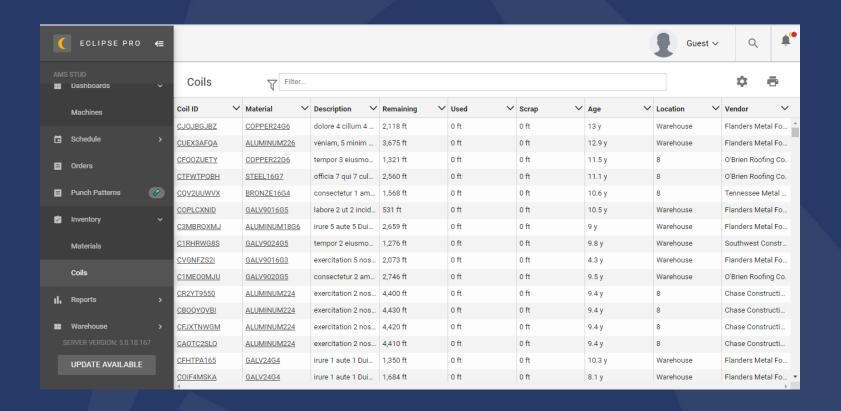


Coil Reports

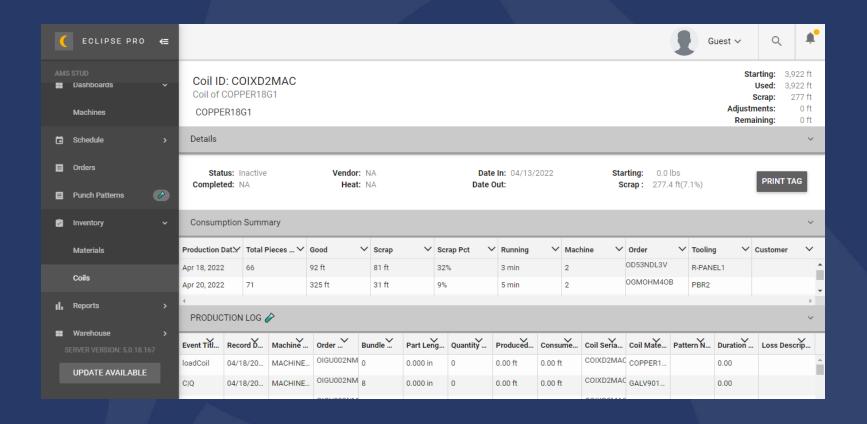
World-class Roll Formi	na		Coil	Summary Report					
	_			•	0/2008				
Used on Order	Material	Machine	Customer	02/18/2008 and 02/1	Start Ft.	Good Ft.	Scrap Ft.	Reclaimed(-)/ Other Ft.	Net Chg Ft.
Coil Number: 12538C		Coil Material: Z0	5015300115	Heat Number:			Desc:		
291487	Z05015300115	M11 - Top Hat	/Specia [24	02/19/2008	0.000	2834.583	39.083	-23.583	-2850.083
Status: Complete				Coil Total:	0.000	2834.583	39.083	-23.583	-2850.083
2 2.11,012.22				Weight:	0.000	5989.47	82.58	-49.83	-6022.23
Coil Number: 12635-C		Coil Material: Z0	5015300115	Heat Number:			Desc:		
291487	Z05015300115	M111 - Top Hat	/Specia [24	02/19/2008	0.000	2787.167	33.917	-23.583	-2797.500
Status: Complete				Coil Total:	0.000	2787.167	33.917	-23.583	-2797.500
				Weight:	0.000	5889.28	71.67	-49.83	-5911.12
Coil Number: 12894-C		Coil Material: Z0	5015300115	Heat Number:			Desc:		
291237	Z05015300115	M11 - Top Hat	/Specia [24	02/19/2008	0.000	5267.250	170.417	-141.583	-5296.083
291486	Z05015300115	M11 - Top Hat	/Specia [24	02/19/2008	0.000	0.000	1.333	0.000	-1.333
291487	Z05015300115	M11 - Top Hat	/Specia [24	02/19/2008	0.000	9518.500	160.833	-94.417	-9584.917
Status: Complete				Coil Total:	0.000	14785.750	332.583	-236.000	-14882.333
· ·				Weight:	0.000	31242.29	702.75	-498.67	-31446.37
Coil Number: 219913		Coil Material: Z0	7002900025	Heat Number:			Desc:		
290970	Z07002900025	M57 - Cross T	ee [28]	02/19/2008	0.000	970.333	-0.083	0.000	-970.250
291408	Z07002900023	M57 - Cross T	ee [28]	02/18/2008	0.000	25786.000	762.417	0.000	-26548.417
Status: In Use				Coil Total:	0.000	26756.333	762.333	0.000	-27518.667
Coil Number: 3100090		Coil Material: Z0	5016330115	Heat Number:			Desc:		
291691	Z05016330115	Y-axis Punchir		02/18/2008	0.000	0.000	24.006	0.000	-24.006
Status: Complete				Coil Total:	0.000	0.000	24.006	0.000	-24.006
				Weight:	0.000	0.00	54.30	0.00	-54.30
Coil Number: 3101010	С	Coil Material: Z0	5016330115	Heat Number:			Desc:		
291690	Z05016330115	Y-axis Punchir	ng Line [2]	02/18/2008	0.000	1745.075	16.799	0.000	-1761.875
291691	Z05016330115	Y-axis Punchin	ng Line [2]	02/18/2008	0.000	1582.674	-0.009	-47.244	-1535.421
291692	Z05022130115	Y-axis Punchin	ng Line [2]	02/18/2008	0.000	0.000	19.235	0.000	-19.235
Status: Complete				Coll Total:	0.000	3327.749	36.025	-47.244	-3316.530
				Weight:	0.000	7527.37	96.95	-106.87	-7517.46
08/13/2012	Time: 4	:07:24PM						Page	2

Coil Summary Report

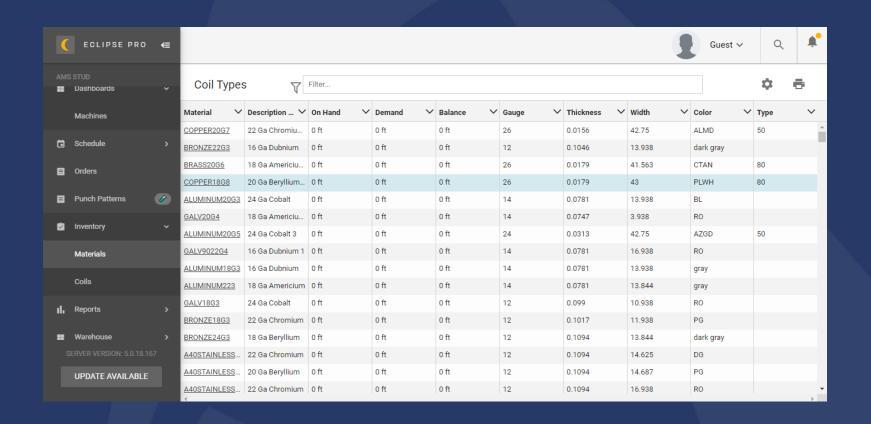




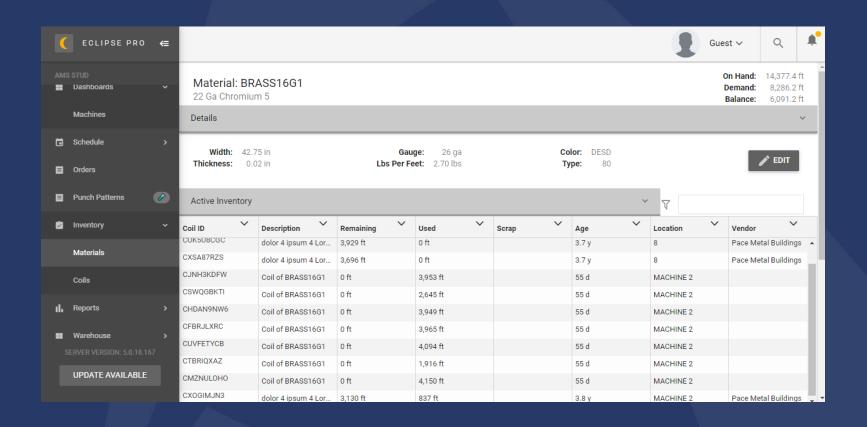












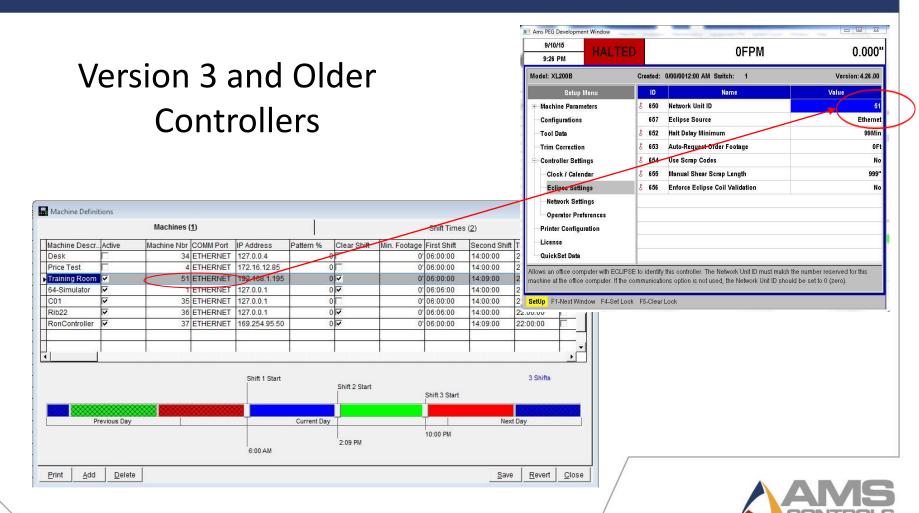


Wrong Machine &

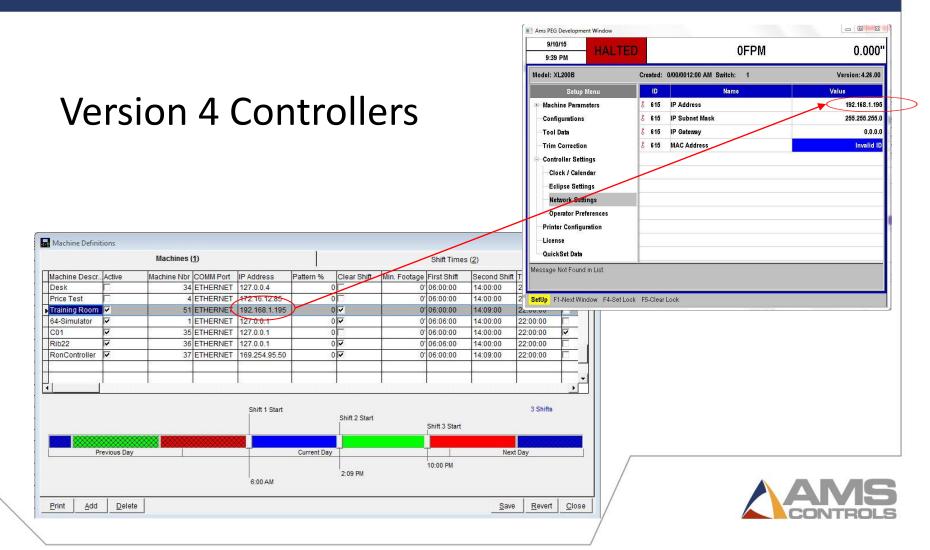
The Eclipse Solution



Machine Setup



Machine Setup

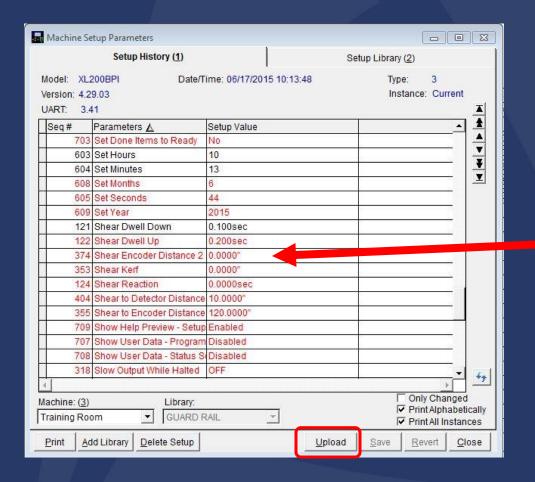


Machine Setup

	Produc	ct Codes (<u>1</u>)		Length Related Data (2)							
Prod. Code	Machine IDA	Description	Finished Width In.	Machine	Staging Bay	Load Dock	Leg Height	Profil 4			
A26B	37	NEW PRODUCT CODE FRO	0.000'	RonControlle		(A	0.000'				
Test	50		0.000'	SAF-Holland		20 20	0.000'				
edmp	50	stud	0.000'	SAF-Holland			0.000'				
DU05	51	29 Gauge Galvanized	0.000	Training Roo		9	0.000'				
EDMP	51	6 Gauge Painted	0.000'	Training Roo	(0	0.000'				
661	51	4 STUD 1.15BMT	0.210'	Training Roo			0.000'				
08C0	52	NEW PRODUCT CODE FRO	0.000'	XL200CL Tes		10	0.000'	0 60			
08R0	63	NEW PRODUCT CODE FRO	0.000	Pella-Test			0.000				
Pella Test	63		0.000	Pella-Test	į.	4	0.000'				
08E1	99	NEW PRODUCT CODE FRO	0.000'			26 CC	0.000'				
08Z0	99	NEW PRODUCT CODE FRO	0.000				0.000'				
10C0	99	NEW PRODUCT CODE FRO	0.000			00	0.000'				
10E1	99	NEW PRODUCT CODE FRO	0.000		6	60	0.000				
10Z0	99	NEW PRODUCT CODE FRO	0.000				0.000				
	100			18		10	s.t.	•			



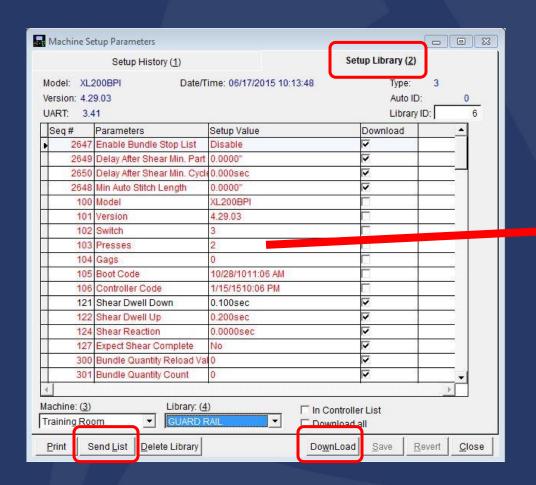
Machine Parameters







Machine Parameters







Machine Parameters

		Setup History (<u>1</u>)		Setup Li			
Model: Versio UART:	A 200 May 200	9.03	ime: 06/17/2015 10:13:48		Type: Auto ID: Library	r	6
Seq#	‡	Parameters	Setup Value	Dow	nload	-	3
	2647	Enable Bundle Stop List	Disable	V		1	
	2649	Delay After Shear Min. Part	0.0000"	V	1		1
	2650	Delay After Shear Min. Cycle	0.000sec	⊽		- 2	
	2648	Min Auto Stitch Length	0.0000"	⊽	1	7	
	100	Model	XL200BPI				
	101	Version	4.29.03	□			
	102	Switch	3		33		
	103	Presses	2				
	104	Gags	0				
	105	Boot Code	10/28/1011:06 AM		1		
	106	Controller Code	1/15/1510:06 PM	匠			
	121	Shear Dwell Down	0.100sec	⊽	- 1		
	IZZ	Streat Dwell Op	U.ZUUSEC	~			
	124	Shear Reaction	0.0000sec	V			
	127	Expect Shear Complete	No	V	37 to 50 to		
	300	Bundle Quantity Reload Val	0	V			
	301	Bundle Quantity Count	0	V	- 1		-
Machin Trainin		Library: (4	1 110	ontroller List Inload all)	Þ	



Wrong Production Data &

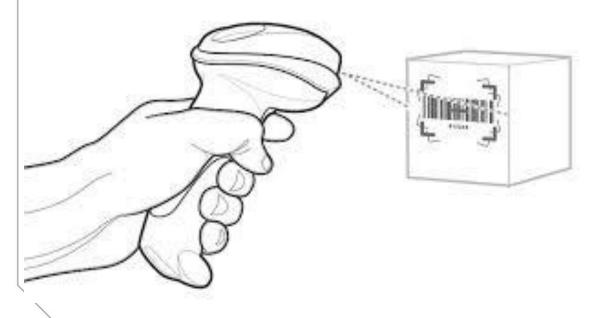
The Eclipse Solution



Data Collection

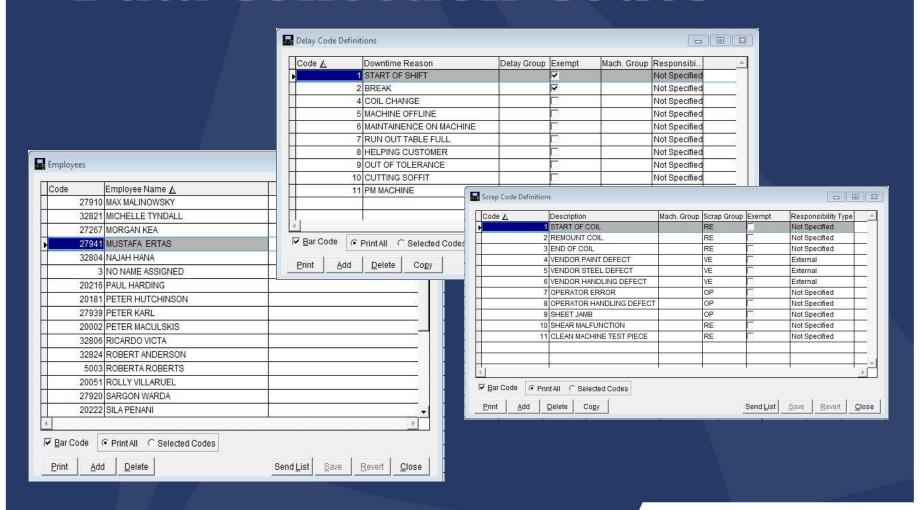
Barcode Scan

- Same effect as Increase Quantity, but includes the Scrap Reason
- Saves Machine Operator steps and avoids on-screen interface
- Reinforces use of barcode scanner for data input





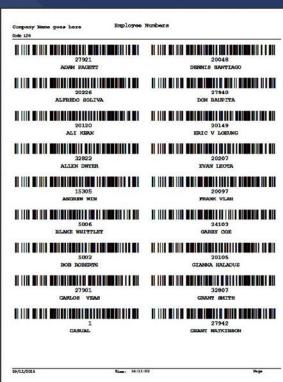
Data Collection-Codes





Data Collection-Codes







Productivity & Profit Tools



PRODUCTIVITY & PROFIT TOOLS

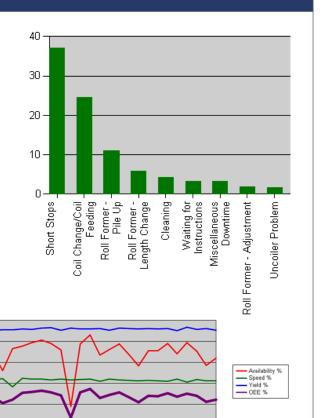
- Real-Time Metrics
- Productivity Tracking
- Scrap Tracking
- Downtime Tracking



How Does Eclipse Help?

Continuous Improvement

- Use Pareto charts to focus attention
- Correlate performance
- Use OEE and other metrics to monitor results & progress
- Andon Displays





How Does Eclipse Help?

Management focus and capital spending

- Operator performance
- Supplier performance
- Equipment performance



PROFITI

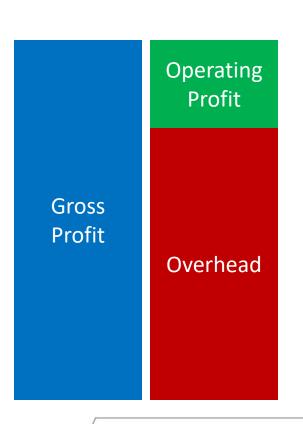
GOAL: PROFIT NOW AND IN THE FUTURE

SIMPLE MODEL:

GROSS PROFIT

- OVERHEAD

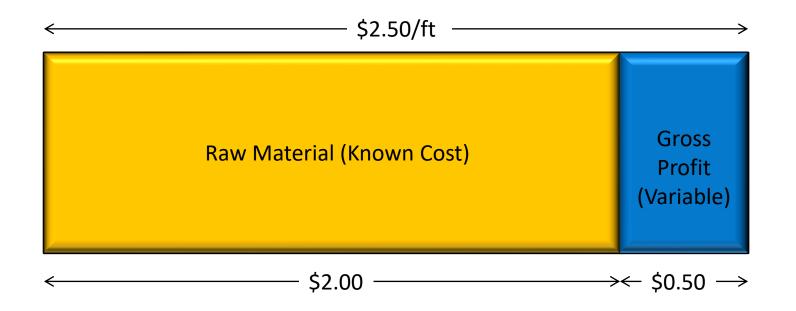
OPERATING PROFIT





GROSS PROFIT

Gross Profit = Selling Price – Material Cost





Road trip: Chicago to St. Louis = 300 miles





Road trip: Chicago to St. Louis = 300 miles



Good news:Bugatti Veyron

Speed = 265 mph Trip time = 67 minutes! Throughput = 265 mph



Bad news: Potty-training toddler

Must stop every 45 mi. Each stop = 20 min. Trip time = 187 min. Throughput = 96 mph



More bad news:
Antique-obsessed mother-in-law

Must stop at every flea market
@ 60 min. ea.
Trip time = 307 minutes
Throughput = 58 mph



Back to Roll Forming...







Good news:
Flying shear
Speed = 135 fpm
Throughput = 135 fpm

Back to Roll Forming...



Bad news:
20 Coil changes/shift
12 minutes/change
240 minutes downtime
Throughput = 58 fpm



More bad news:
2 Tooling changes/shift
35 minutes/change
310 minutes downtime
Throughput = 35 fpm



How Roll Formers Make Money

Production / day = (420-310) * 135 = 14,850'

Gross profit / year = 14,850 * \$0.50 * 250 = \$1.9M

Overhead / year = \$800K

Operating profit = \$1.1M*

Gross Profit \$1.9M Operating
Profit
\$1.1M

Overhead \$800K



How Roll Formers Make Money

Almost...

Additional downtime from data entry, etc: 35 min.

Production / day = (420 - 310 - 35) * 135 = 10,125'

Gross profit / year = 10,125 * \$0.50 * 250 = \$1.3M

Operating profit = \$466K*

Gross Profit \$1.9M Operating
Profit
\$1.1M

Overhead \$800K



How Roll Formers Make Money

Not so fast...

Problems with stacker limit speed to 120 fpm

Production / day = (420-345) * 120 = 9,000'

Gross profit / year = 9,000 * \$0.50 * 250 = \$1.1M

Operating profit = \$325K*

Gross Profit \$1.3M O.P. \$466K

Overhead \$800K



How Roll Formers Make Money

Oh, Scrap!

2% of parts have a problem and you scrap 10' per coil change

Production/day = (420-345)*120*98% = 8,820'

Gross profit/year = 8,820 * \$0.50 * 250 - (180+200) * \$2.00 = \$914K

Gross Profit \$1.1M O.P. \$325K

Overhead \$800K

Operating profit = \$114K**

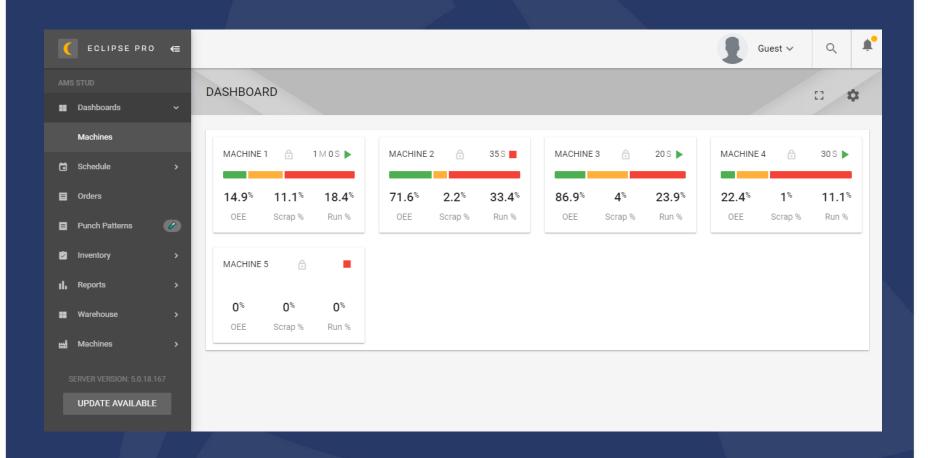
* Assuming you don't ship any bad product to a customer!

AMS



File Edit Orders Parts Controller Reports Inventory Maintenance Equipment PM System Tools Window Help **ECLIPSE-COMM IS RUNNING** SnapShot 6 Shift Footage Avg. FPM % Complete Runtime % Coil Number Machine... Shift Date Presses -Training Room [51] 6 % Johnny Walker 1425 51 09/14/2015 ZH5016400 4.29.03 64-Simulator [1] 0 % John Brown2 0.00 % Test 1 09/14/2015 20 Gauge St 4.26.00 0 Rib22 [36] 0.00 % 36 / / Shift Date Machine Switch Shift: Prod. Code Messages Left Shift Footage 0 Memory Status OFF LINE Avg.Rate Bundle Sched. Footage Runtime % 0.000 % Coil Number % Complete





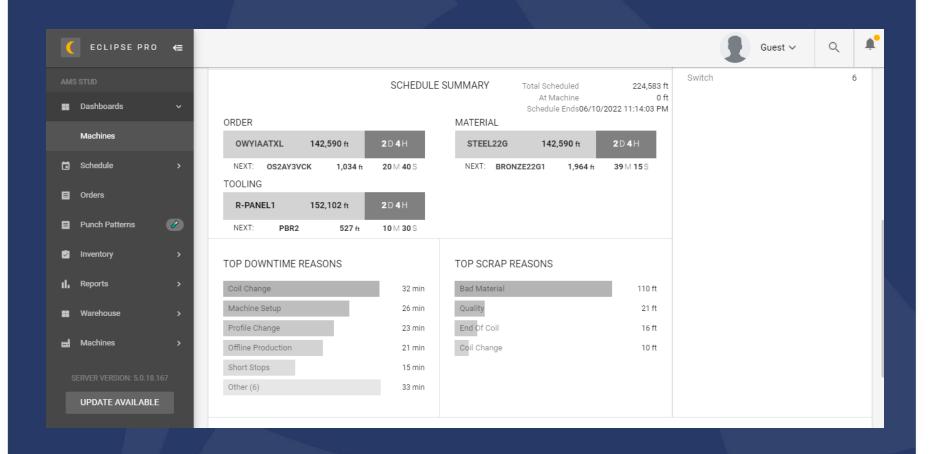






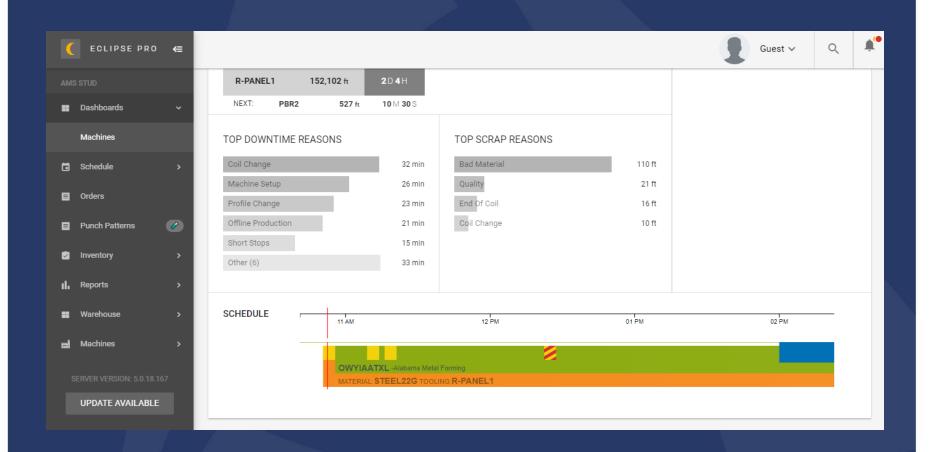






Eclipse Pro View with Premium Support





Eclipse Pro View with Premium Support

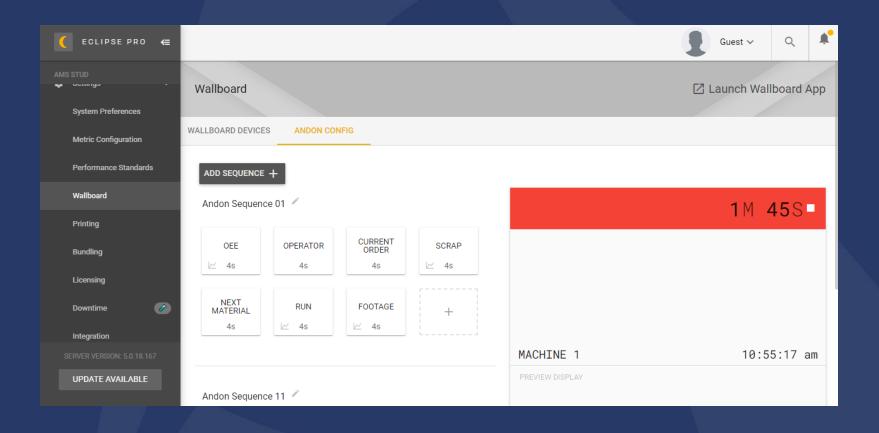


Andon Display

- Japanese word for "paper lantern"
- Immediate attention to problems as they occur in the manufacturing process
- Simple & consistent mechanism for communicating information
- Encourage immediate reaction to issues
- Improve accountability of operators by increasing their responsibility for "good" production
- Empowering them to take action when problems occur
- Improve the ability of supervisors to quickly identify and resolve manufacturing issues

ANDON=EMPOWERING ALL





Eclipse Pro -Andon Board





Eclipse Pro -Andon Board





World-class Roll Forming

Production Summary

Dates between 02/18/2008 and 02/19/2008

Product Code		Total Good t. / Lbs.	Net Scrap Ft. / Lbs.	% Scrap	Total Ft. / Lbs.	Reclaimed Scrap Ft. / Lbs.	Total Cuts	Coil Chgs	Matl Chgs	Matl Dev	Tool Chgs	Machines	Shift HH: M M	Run HH: MM	Run %	Run Fpm
Employee:	20007	TONYM	ONGE													
, -		.00	.00	0.00	.00	.00	0	0	0	0	0		0:00.00	0:00.00	0.00	0.0
111		9.84	.00	0.00	9.84	.00	1	0	0	0		031	0:00.45	0:00.05	11.11	196.9
P01		76,787.25	234.82	0.30	77,022.07	.00	9006	11	o	0	-	022	8:45.78	5:17.34	60.36	242.0
P05		21,749.96	91.67	0.42	21,841.63	.00	2351	6	0	0	0	019	5:52.30	3:25.79	58.41	105.7
Employee Tota	al:	98,547.05	326.49	0.33	98,873.54	.00	11358	17	0	0	0		14:38.53	8:43.18	59.55	188.4
Employee:	20181	PETER H	IUTCHINSON													
' '		.00	.00	0.00	.00	.00	0	0	0	0	0		0:00.00	0:00.00	0.00	0.0
333		20,826.73	295.78	1.40	21,122.51	.00	1068	2	О	o	o	010	5:30.88	2:41.33	48.76	129.1
554		37,192.84	485.29	1.29	37,678.13	.00	3156	5	1	o	1	010	6:16.92	3:51.88	61.52	160.4
NZ38		.00	47.65	100.00	47.65	.00	4	0	1	0		010	0:00.00	0:00.00	0.00	0.0
P32		2,732.28	13	0.00	2,732.15	.00	347	0	o	0	0	013	0:23.25	0:17.47	75.14	156.4
Employee Tota	al:	60,751.85	828.59	1.35	61,580.43	.00	4575	7	2	0	2		12:11.05	6:50.68	56.18	147.9
Employee:	20216	PAUL HA	RDING													
' '		.00	.00.	0.00	.00	.00	0	0	O	o	0		0:00.00	0:00.00	0.00	0.0
255		38,618.42	253.67	0.65	39,202.25	330.17	1651	11	o	o	o	024	13:02.22	5:41.44	43.65	113.1
		81,600.71	536.00		82,834.35	697.64										
581		.00	.00	0.00	.00	.00	a	0	o	0	0	024	0:28.93	0:00.00	0.00	0.0
Employee Tota	al:	38,618.42 81,600.71	253.67 536.00	0.65	39,202.25 82,834.35	330.17 697.64	1651	11	0	o	0		13:31.15	5:41.44	42.09	113.1
Employee:	20220	VINEN C	HANDRA													
303		95,502.43	754.02	0.78	96,256.46	.00	4796	11	0	o	0	004	10:28.10	5:58.62	57.10	266.3
308		.00	.00	0.00	.00	.00	0	0	o	О	0	004	2:07.88	0:00.00	0.00	0.0
Employee Tota	al:	95,502.43	754.02	0.78	96,256.46	.00	4796	11	o	0	0		12:35.98	5:58.62	47.44	266.3
Employee:	20222	SILA PEN	NANI													•
' '		.00	.00	0.00	.00	.00	0	0	0	0	0		0:00.00	0:00.00	0.00	0.0
P18		69,432.93	557.55	0.80	69,990.49	.00	8831	9	0	0	0	011	13:59.04	8:51.29	63.32	130.7
Employee Tota	al:	69,432.93	557.55	0.80	69,990.49	.00	8831	9	0	0	0		13:59.04	8:51.29	63.32	130.7
Report Tota		Total Good 362,852,68	Net Scrap 2,720,32	% Scrap 0.74	Total 365,903,16	Reclaimed Scrap 330.17	Total Cuts 31211	Coil Chgs 55	Mati Chgs 2	Matl De√	Chgs		Shift HH: MM 66:55.75	Run HH:MM	Run %	Run 167.6
nogen int	ai: .	362,852.68 81,600.71	2,720.32 536.00	0.74	82,834.35	697.64	31211	55	2	U	. 2		66:55.75	36:05.21	53.92	107.6

03/08/2013 **Time:** 8:53:03AM **Page** 1



World-class Roll Forming

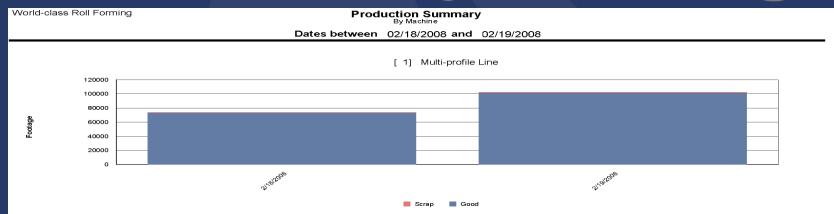
Production Summary By Machine

Dates between 02/18/2008 and 02/19/2008

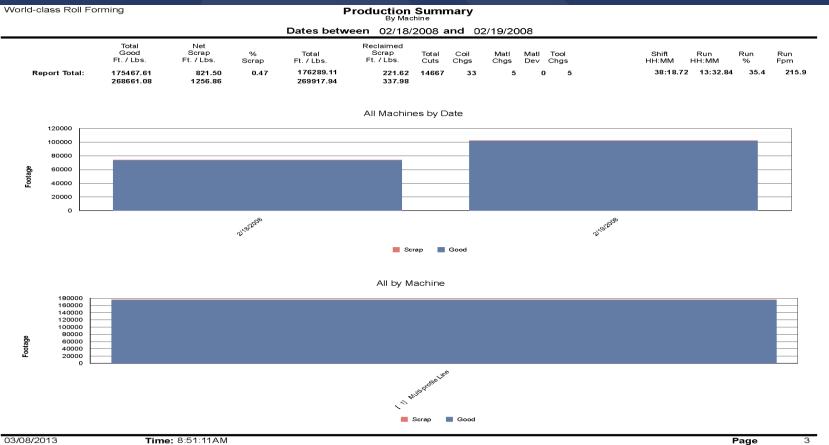
Machine:	[1] Mu	Iti-profile Line														
Date	Shift	Total Good Ft. / Lbs.	Net Scrap Ft. / Lbs.	% Scrap	Total Ft. / Lbs.	Reclaimed Scrap Ft. / Lbs.	Total Cuts	Coil Chas	Mati Chgs	Mati Dev	Tool Chas	Operators	Shift HH: MM	Run HH:MM	Run %	Run Fom
02/18/2008	1	31226.32	158.52	0.51	31384.83	0.00	3016	5	2	a	2	20207 20226	6.18.63	2:21.88	37.5	220.1
		45590.42	231.90		45822.32	.00										
02/18/2008	2	37578.67	146.67	0.39	37725.33	88.58	3834	6	0	0	0	1 20207 20226	8:32.36	3:17,71	38.6	190.1
		54864.85	214.13		55078 98	129.33						20220				
02/18/2008	3	4768.36	112.30	2.30	4880.66	9.84	490	1	1	0	1	20207	3:37.63	0:22.39	10.3	213.0
		7518.56	178.25		7696 81	14.37										
Dat	te Total:	73573.34	417.49	0.56	73990.83	98.43	7340	12	3	0	3		18:28.62	6:01.98	32.7	203.3
		107973.83	624.29		108598.11	143.70										
02/19/2008	1	18338.93	219.13	1.18	18558.06	0.00	1494	4	0	0	0	20207 20226	6:53.85	1:26.87	21.0	21 1.1
		28920.49	345.57		29266 06	.00										
02/19/2008	2	54976.65	120.55	0.22	55097.20	103.51	4017	12	o	a	0	1 20207	9:22.55	4:03.31	43.3	226.0
		86698.18	190.10		86888.28	163.24										
02/19/2008	3	28578.68	64.34	0.22	28643.02	19.69	1816	5	2	0	2	20207	3:33.70	2:00.68	56.5	236.8
		45068.58	96.90		45165.49	31.04										
Dat	te Total:	101894.26 160687.25	404.02 632.58	0.39	102298.28 161319.83	123.20 194.28	7327	21	2	0	2		19:50.10	7:30.86	37.9	226.0
Machin	ne Total:	175467.61 268661.08	821.50 1256.86	0.47	176289.11 269917.94	221.62 337.98	14667	33			5		38:18.72	13:32.84	35.4	215.9

03/08/2013 **Time:** 8:51:11AM **Page** 1

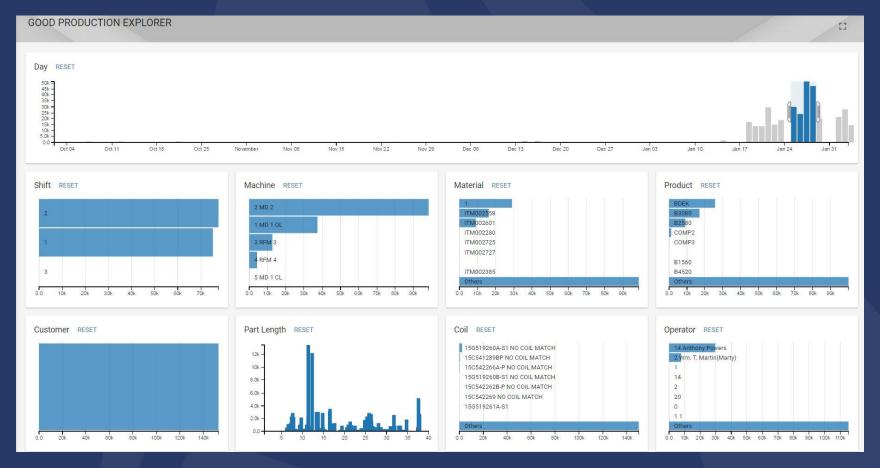












Eclipse Pro View with Premium Support

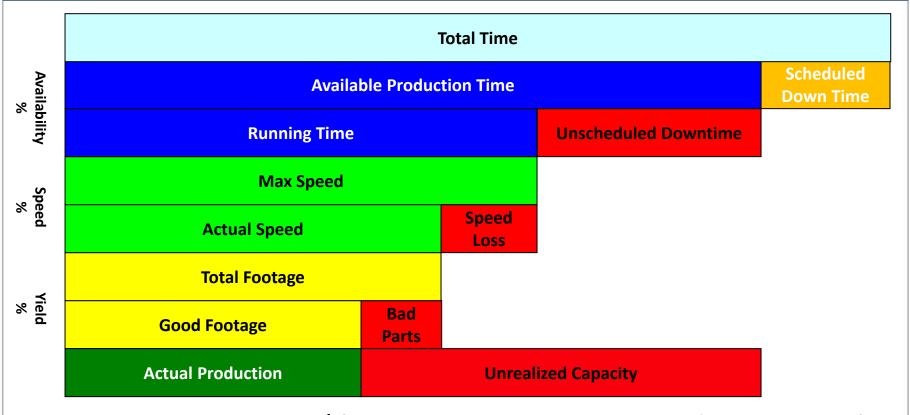








OEE – Overall Equipment Effectiveness

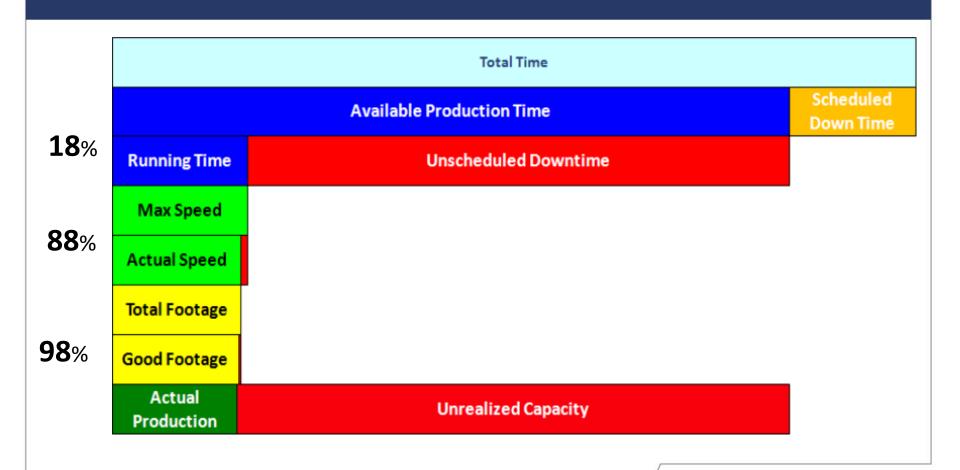


= Good Production / (Available Production Time * Max speed)

OEE = Availability * Speed * Yield



OEE – Overall Equipment Effectiveness



OEE = 18% * 88% * 98% = 15.6%



Scrap Tracking



How Does Eclipse Help?

Less Waste

- Minimize scrap
 - Optimize production schedule
 - Optimize cutting patterns for slitters or shears
 - Mistake-proofing!
 - Knowing causes leads to fixes



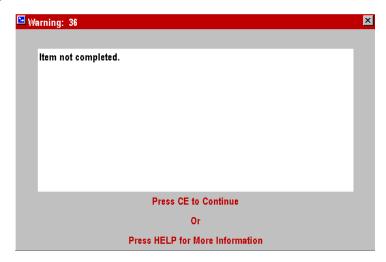
4 Methods of handling Scrap pieces:

- Increase Quantity
- Remake
- Hand-keyed "900" bundle
- Barcode Scan "on-the-fly"



Increase Quantity:

- Used for small quantities (1 2 pieces at a time)
- Cut list item cannot have a status of "DONE"
- Can be used "on-the-fly" in most applications
- Parts produced this way are counted as Scrap
- Operators must be careful around Bundle and Order transitions





Remake:

- Used for large quantities or when an item is "DONE"
- Cannot be used "on-the-fly"
- Parts produced this way are always counted as Scrap
- Parts are not counted as Scrap until they are produced

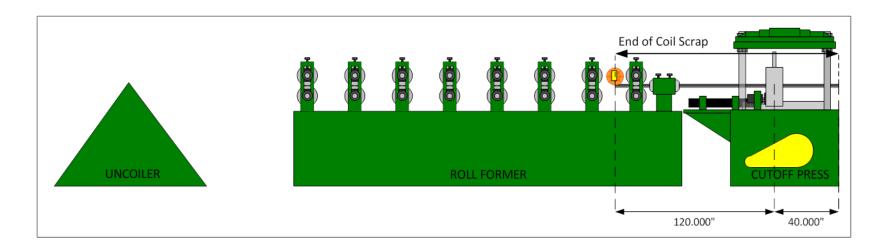


900 Bundle Number – For when you KNOW you're making Scrap!

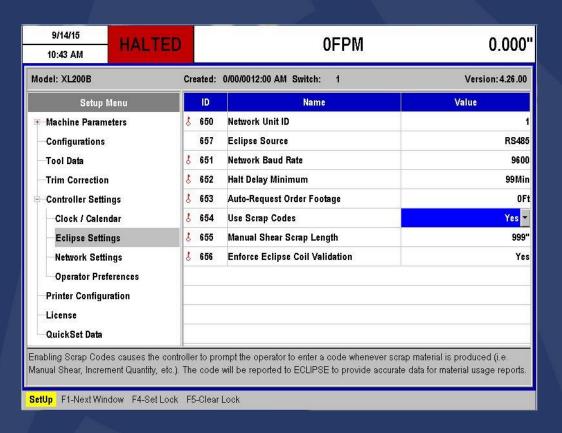
- Any bundle with a 900+ number is automatically counted as Scrap
- The last 2 digits carry the Scrap Code
- Used by Machine Operators to handle large quantities of Scrap
 - The current coil has a large section of defective material
 - The Machine Operator or Setup Man is working on a tooling setup or problem that will clearly generate a lot of Scrap in the process of forming a good part



Decrease Quantity is used to recover good product from something previously counted as scrap. It subtracts from the Scrap total and adds length back to the Good total.



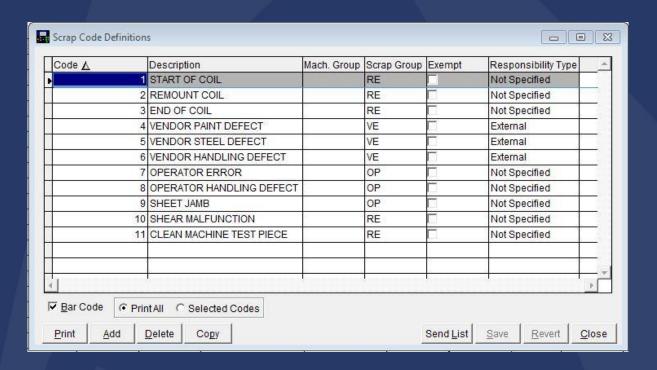




XL200 Controller Setup Screen



Scrap Codes



If Bundles are set to zero-Scrap is sent to general scrap file

Maintenance Tab



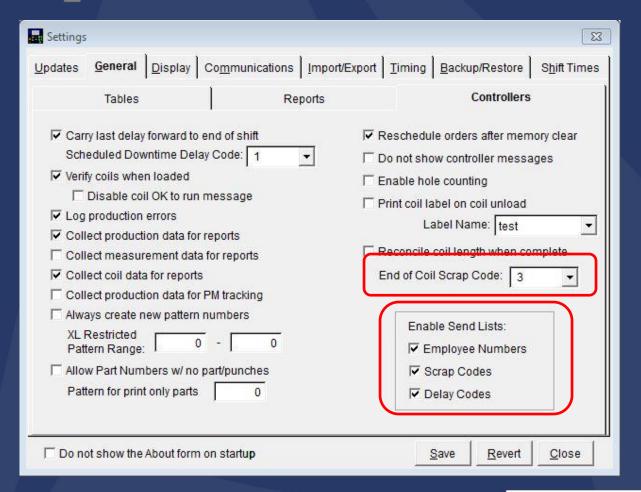
Scrap Codes-Groups

Code	Group Name A	Exempt	Responsibi
RE	COIL REMOUNTS		Not Specified
OP	OPERATOR ERROR		Not Specified
VE	VENDOR DEFECTS		External
	10	10	
	8	8	
		- 1	

Maintenance Tab



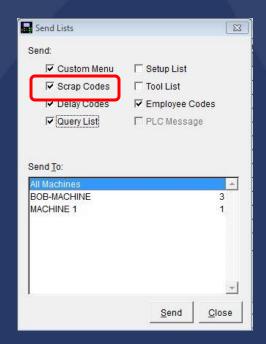
Scrap Codes



Settings Tab



Scrap Codes



Maintenance Tab

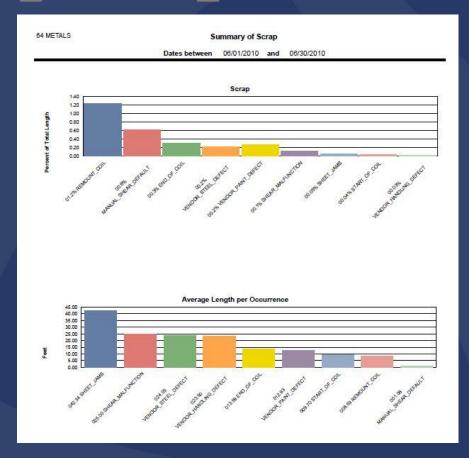


Scrap Reports

64 METALS			Summary of	of Scrap					
		Dates between	en 06/01/20	10 and	06/30/2010)			
	Gauge, Width, Prod Code: 29 4	1.000 29GA	MACHINE 1	1]			Shift: 1		
	Total Footage:	88	,209.06 ft		Total We	eight:	172,	882.74 lbs	
	Total Good Footage:	85	,665.03 ft		Good We	eight:	167,	901.72 lbs	
	Average Footage:	5	,200.74 ft		Average We	ight:	10.	193.34 lbs	
	Scrap Footage:	2,544.02 ft			Total Exit Scrap:		4.5	4,981.02 lbs	
	Scrap Footage %:		2.88 %		Total Exit Scra	ар %:		2.88 %	
	Scrap Cost:		3275.77		Raw Material S	crap:		0.00 lbs	
	Reclaimed Footage:		0.00 ft		Reclaimed We	•		0.00 lbs	
	Average Speed:	7	9.49 ftpm		Runtin		4.04 %	18.49 hrs	
					Total H	ours:	1	131.77 hrs	
Code	Scrap Reason		Scrap Length	% Total Length	Scrap Weight	% Total Weight	Ave Length Per Occur	Occurences	
3	END OF COIL		271.72 ਜੋ	0.31	536.71 lbs	0.31	13.59 ft		
19633	REMOUNT COIL		1,083.82 ft	1.23	2,113.81 lbs	1.22	8.53 ft	1.	
	SHEAR MALFUNCTION		100.00 ft	0.11	194.69 lbs	0.11	25.00 ft		
1	START OF COIL		38.81 ft	0.04	78.06 lbs	0.05	9.70 ft		
	C	DIL REMOUNTS Total	1,494.36 ft	1.69	2,923.27 lbs	1.69	9.64 ft	1	
0	MANUAL SHEAR DEFAULT		545.86 ft	0.62	1,069.64 lbs	0.62	1.08 ft	5	
		NOT ASSIGNED Total	545.86 ft	0.62	1,069.64 lbs	0.62	1.08 ft	5	
9	SHEET JAMB		42.34 ft	0.05	84.08 lbs	0.05	42.34 ft		
	OPE	RATOR ERROR Total	42.34 ft	0.05	84.08 lbs	0.05	42.34 ft		
6	VENDOR HANDLING DEFECT		23.50 ft	0.03	46.34 lbs	0.03	23.50 ft		
4	VENDOR PAINT DEFECT		245.71 ft	0.28	482.72 lbs	0.28	12.93 ft		
5	VENDOR STEEL DEFECT		192.26 ft	0.22	374.97 lbs	0.22	24,03 ft		
	VEN	DOR DEFECTS Total	461.47 ft	0.52	904.03 lbs	0.52	16.48 ft		
		Non-Exempt Total	2,544.02 ft	2.88	4,981.02 lbs	2.88	3.69 ft	6	
		Total Scrap	2,544.02 ft	2.88	4,981.02 lbs	2.88	3.69 ft	6	
		Net Scrap	2.544.02 ft	2.88	4.981.02 lbs	2.88			



Scrap Reports





Scrap Groups Report

				Scrap Grou	p Definitions			
			1	Code	Group Name ∆	Exempt	Responsibi	Δ.
			2	RE	COIL REMOUNTS		Not Specified	
				OP	OPERATOR ERROR		Not Specified	7
				VE	VENDOR DEFECTS		External	
						1		
							70	
54 METALS							97 9	
14 WETALO	Sum	mary of Scrap by (rouping				1 1	
	Dates be	tween 06/01/2010 ar	d 06/30/2010					
				Ì			unin sa	•
Gauge, Width, Prod Code:	29 41.000 29GA	MACHINE 1 [1]		Print	Add Delete	Sa	ve <u>R</u> evert	Close
Total Footage:		88,209.06 ft	Total Weight:		172,882.74 lbs			
Total Good Footage:		85,665.03 ft	Good Weight:		167,901.72 lbs			
Average Footage:		5,200.74 ft	Average Weight:		10,193.34 lbs			

4.981.02 lbs

2.88 %

0.00 lbs

Total Exit Scrap:

Total Exit Scrap %:

Raw Material Scrap:

	Sciap Cost		02.0	r, a	W Material 30	rap.		0.00 103
	Reclaimed Footage:		0.00 ft	R	eclaimed We	ight:		0.00 lbs
	Average Speed:	79		Runtim	e %: 1	4.04 %	18.49 hrs	
					Total Ho	urs:	1	31.77 hrs
Code	Scrap Grouping		Scrap Length	% Total Length	Scrap Weight	% Total Weight	Ave Length Per Occur	Occurences
2	COIL REMOUNTS		1,494.36 ft	1.69	2,923.27 lbs	1.69	9.64 f	155
0	NOT ASSIGNED		545.86 ft	0.62	1,069.64 lbs	0.62	1.08 f	505
9	OPERATOR ERROR		42.34 ft	0.05	84.08 lbs	0.05	42.34 f	t 1
4	VENDOR DEFECTS		461.47 ft	0.52	904.03 lbs	0.52	16.48 f	t 28
		Non-Exempt Total	2,544.02 ft	2.88	4,981.02 lbs	2.88	3.69 f	t 689
		Total Scrap	2,544.02 ft	2.88	4,981.02 lbs	2.88	3.69 f	t 689
		Net Scrap	2,544.02 ft	2.88	4,981.02 lbs	2.88		
		Net Scrap	2,344.02 11	2.00	4,301.02.105	2.00		

2.544.02 ft

2.88 %

3275.77

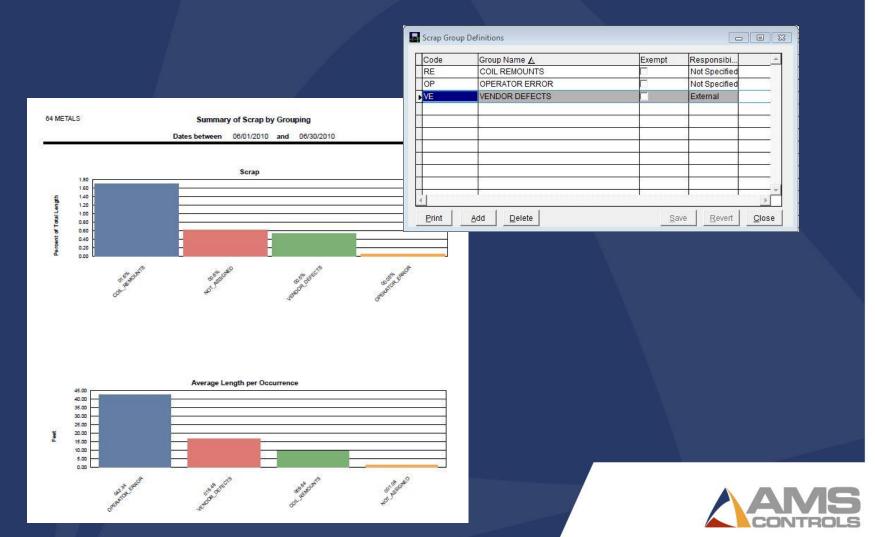
Scrap Footage:

Scrap Cost

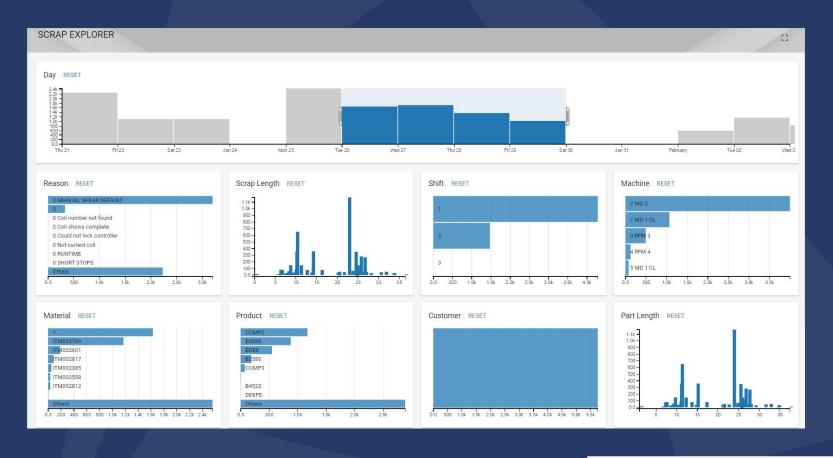
Scrap Footage %:



Scrap Group Report



Scrap Reports









How Does Eclipse Help?

More Capacity

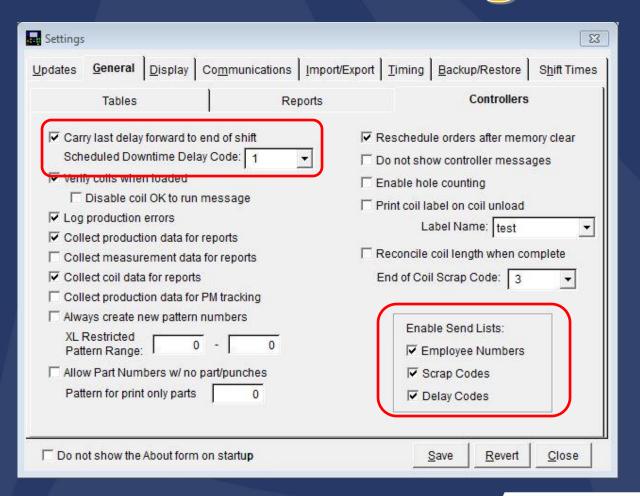
- Eliminate downtime
 - Data entry
 - Coil and production logging
 - Waiting for coils to arrive or finished goods to be removed
 - Coordinate help to minimize changeover time



Code <u>∧</u>	Downtime Reason	Delay Group	Exempt	Mach. Group	Responsibi		
	1 START OF SHIFT		~		Not Specified		
	2 BREAK		V		Not Specified		
	4 COIL CHANGE	3				Not Specified	
	5 MACHINE OFFLINE		П		Not Specified		
	6 MAINTAINENCE ON MACHINE				Not Specified	- 3	
	7 RUN OUT TABLE FULL				Not Specified		
	8 HELPING CUSTOMER		П		Not Specified		
	9 OUT OF TOLERANCE				Not Specified	- 10	
	10 CUTTING SOFFIT		Cit		Not Specified		
	11 PM MACHINE	3 .		3	Not Specified	- 2	
Bar Code	Print All C Selected Codes		5	T.	į.	35	

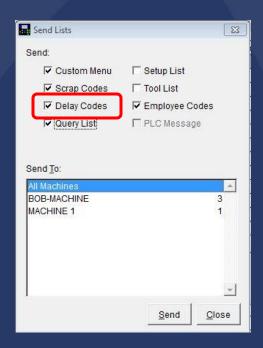
Maintenance Tab





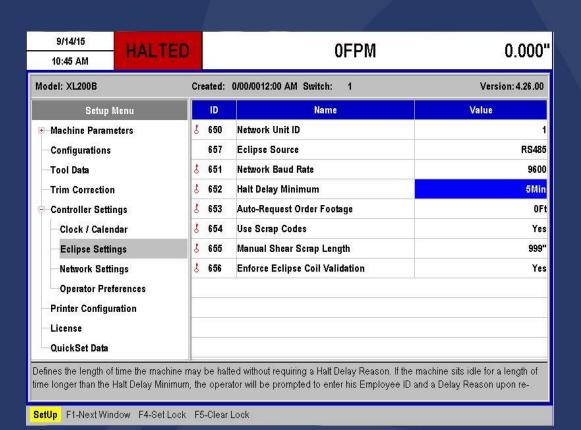
Settings Tab

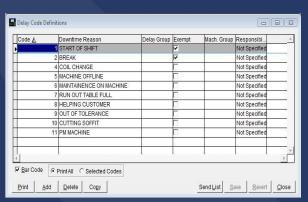




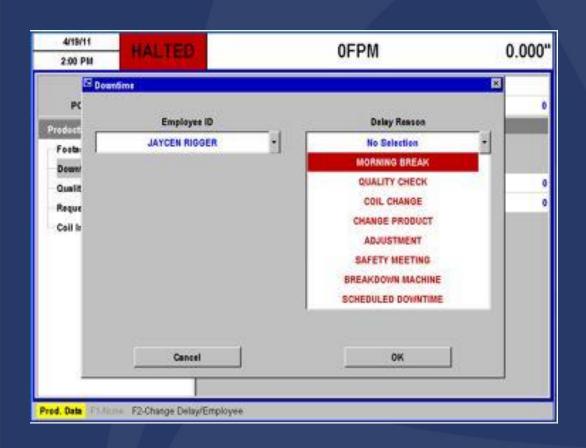
Maintenance Tab

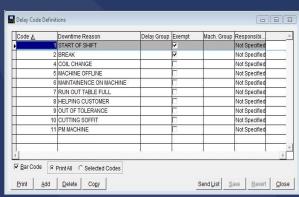






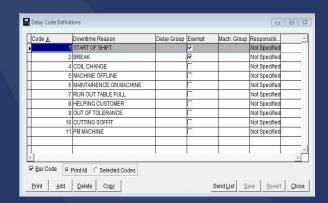




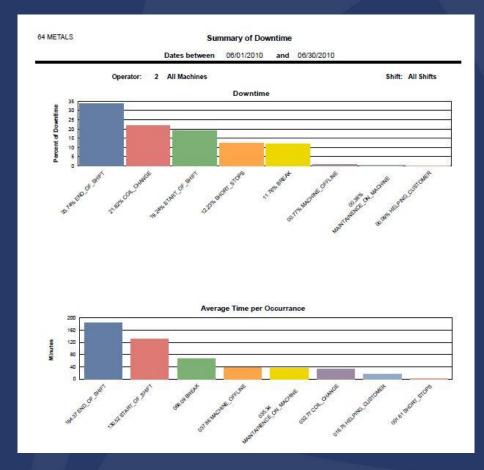


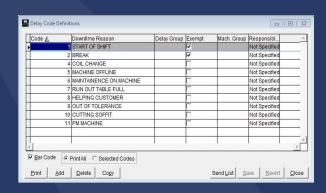


64 METALS Summary of Downtime and 06/30/2010 06/01/2010 Dates between Operator: 2 All Machines Shift: All Shifts 152,002.89 ft 297.747.77 lbs Total Footage: Total Weight: Total Good Footage: 147.668.67 ft Good Weight: 289.247.30 lbs Average Footage: 3.281.64 ft Average Weight: 6,427.93 lbs 4.334.22 ft Total Exit Scrap: 8.500.47 lbs Scrap Footage: Scrap Footage %: 2.85% Total Exit Scrap %: 2.85 % 5581.05 0.00 lbs Scrap Cost: Raw Material Scrap: 0.00 ft 0.00 lbs Reclaimed Footage: Reclaimed Weight: 78.91 ftpm 8.92 % 32.10 hrs Average Speed: Runtime %: Total Hours: 359.99 hrs % % Ave Time per Downtime Total Time Occur Code Delay Reason Minutes Occurences 00 END OF SHIFT 33.74 30.73 184.37 36 04 COIL CHANGE 4292.45 21.82 19.87 32.77 131 01 START OF SHIFT 3784.95 19.24 17.52 130.52 29 02 BREAK 2312.98 11.76 10.71 66.09 35 05 MACHINE OFFLINE 151,42 0.77 0.70 37.86 06 MAINTAINENCE ON MACHINE 70.68 0.36 0.33 35.34 2 08 HELPING CUSTOMER 16.75 0.09 0.08 16.75 **NOT ASSIGNED Total** 17266.51 87.77 79.94 72.55 238 00 SHORT STOPS 2406.53 12.23 11.14 1.61 1495 SHORT STOPS Total 2406.53 12.23 11.14 1.61 1495 Non Exempt Total 19673.04 100.00 91.08 11.35 1733 RUN TIME 1926.24 8.92 0.84 2300 **RUN TIME Total** 1926.24 8.92 0.84 2300 Total Downtime 19673.04 11.35 1733 Total Time 21599.28











World-class Roll Forming

Summary of Downtime

Dates between 02/18/2008 and 02/19/2008

	Operator	0002 PETER MACULISKIS AII	Machines			Shift A	II Shifts	
	Total Footage:	54,252.01 ft		Total Wei	ght	68,5	45 19 lbs	
	Total Good Footage:	53,576.75 ft		Good Weig	ght	65,4	45.52 bs	
	Average Footage: 14,094.51 ft		Average Weight:			17,210.84 (06		
	Scrap Footage: 675.25 ft		Total Exit Scrap:			1,099.67 lbs		
	Scrap Footage %:	1.24 %		Total Exit Scrap %:			1.65 %	
	Scrap Cost: 0.00		Raw Material Scrap:			0.00 lbs		
Reclaimed Footage:		1,373.35 ft	1,373.35 ft Rec		Reclaimed Weight		626.48 lbs	
	Average Speed:	117.05 ftpm	Runtime %: Total Hours:			5.40 % 7.72 hrs 42.76 hrs		
				5	*	Ave Time per		
ode	Delay Reason		Mnufes	Downtime	Total Time	Occur	decurences	
03	COIL CHANGE / LOADING COIL		329.69	15.69	12.86	27.40	The same of	
		Material Handling Total	329.89	15.69	12.86	27.49	1	
05	ADJUSTMENT		58.97	2.61	2.30	7.37		
07	BREAKDOWN MACHINE/ PRIN	TER	27.79	1.32	1.06	9.26		
04	CHANGE PRODUCT / LENGTH		631.40	30.03	24.61	90.20		
02	NORMAL RUN / QUALITY CHE	 Introduction of the control of the con	170.91	6.13	6.66	8.14	2	
		NOT ASSIGNED THAI	889.07	42.29	34.65	22.80	3	
00	SHORT STOPS		142.15	6.76	5.54	1.05	13	
		SHORT STOPS Total	142.15	6.76	5,54	1.05	13	
		Non Exempt Total	1361.11	64,74	53.05	7.32	18	
09	END SHIFT		158.27	8.00	0.56	33.85		
60	SCHEDULED DOWNTIME/ ME/	L BREAK	151,14	8.62	7.06	36.23		
01	START SHIFT		391.78	18.64	15.27	55.97		
		Scheduled Downtime Total	741.19	35.26	29.89	43.60	1	
	RUN TIME		463.49		15.06	1.60	24	
		RUN TIME TOLAL	463.49		18.06	1.90	24	
		Total Downtime	2102.30		21.94	10.36	20	
		Total Time	2565.79					

World-class Roll Forming

Summary of Downtime

Dates between 02/18/2008 and 02/19/2008

	Operator	20020 SUE BYRNES All Machin	res			Shift /	UI Shifts	
	Total Footage:		Total Wei	ght		0.00 bs		
	Total Good Footage:	51,184.94 ft		Good Weight:			0.00 lbs	
	Average Footage:	60,365.53 ft	Average Weight:				0.00 lbs	
Scrap Footage: 204.27 ft Scrap Footage %: 0.40 % Scrap Cost: 0.90			Total Exit Scrap:				0.00 lbs	
				Total Exit Scrap %:			0.%	
			Raw Material Scrap:				0.00 lbs	
	Reclaimed Footage:	102.36 ft	Reclaimed Weight:				0.00 lbs 4.33 hrs	
Average Speed:		197.96 ftpm	Runtime %:			63.78 %		
				Total Ho	urs:		7.96 hrs	
Code	Delay Reason		Minutes	% Downtime	Total Time	Ave Time pe Occur	Occurences	
63	COIL CHANGE / LOADING O	OIL:	65.55	30.07	13.72	7.28		
		Material Handling Total	65.55	30.97	13.72	7.28		
07	BREAKDOWN MACHINE/ PR	INTER	49.24	22.59	10.31	12.31		
04	CHANGE PRODUCT / LENGT	TH	9.77	4.48	2.05	9.77		
		NOT ASSIGNED Total	59.01	27.07	12.36	11.80		
00	SHORT STOPS		22.85	10.48	4.78	0.82	- 1	
		SHORT STOPS Total	22.15	10.48	4.78	0.92	2	
		Non Exempt Total	147,41	67.61	30.86	3.51		
09	END SHIFT		14.03	6.44	2.94	7.02		
08	SCHEDULED DOWNTIME/M	EAL BREAK	56.58	25.95	11.85	28.29		
		Scheduled Downtime Total	70.61	32.39	14.78	17.65		
	RUN TIME		259.59		54.35	6.04		
		RUN TIME Total	259.59		54.35	6.04		
		Total Downtime	218.02		45.65	4.74	-	
		Total Time	477.61					















Operational Tools



OPERATIONAL TOOLS

- Order Queries
- Operator Messages
- Bundle & Part Printing



How Does Eclipse Help?

Flexibility

- Bundling
- Custom punching or profiles
- Bundle labeling and part marking



How Does Eclipse Help?

On-time deliveries

- Predict completions
- Fewer "fires" caused by mistakes
- Instantly detect material shortages



Order Queries



Order Queries

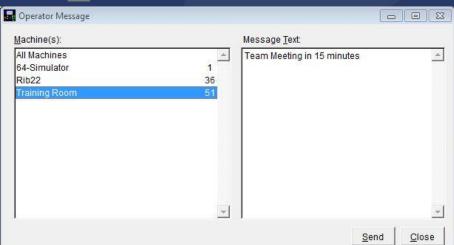
	Query Lists	
	Outline View (1)	Item Detail (2)
Query Lists	Identifier Item Text	*
Outline View (1)	Request Order	
(1) Request Order	List Type: Order ▼ Permanent: 🗸	Next List: 000 ▼ ▲
(10) Orders by PCode	Available Statuses: Status Filter	Next List: 000
	Scheduled Add >	
(20) Order for Current Set Up	Current Material < Remove	<u> </u>
	Available Fields: Fields to Send	Selected Fields:
	Work Order Truck Number	Material A Order Number
	Customer Name Add >	Required Date
	Gauge < Remove	77
	Color < Remove All	
	Matl Desc Product Group	
	Unit ID Machine This L	
	▶ 1 64-Simulator [1]	
		<u> </u>
	Print New Item Delete Sen	d List Save Revert Close
Print New Item Delete Send List	Save Revert Close	

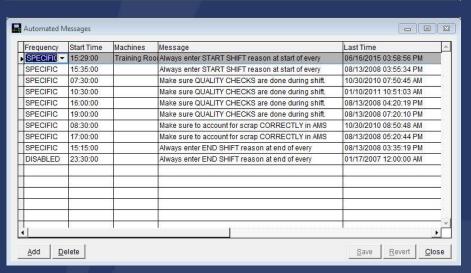


Operator Messages



Operator Messages





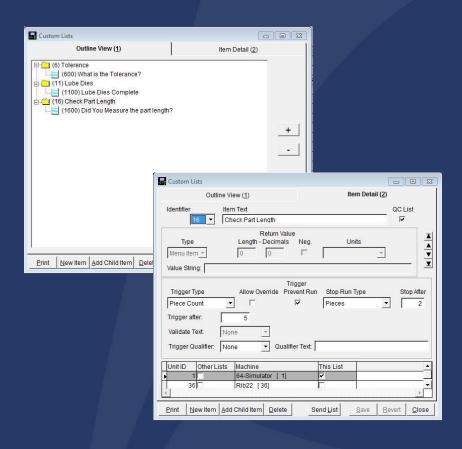


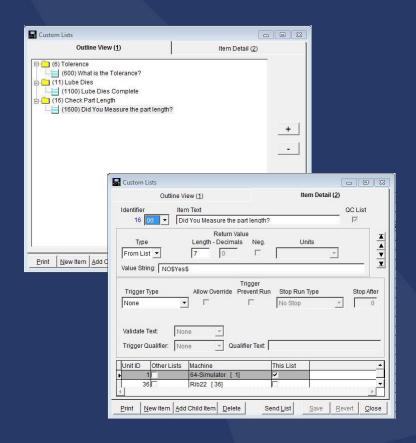


Quality Audits



Quality Audits



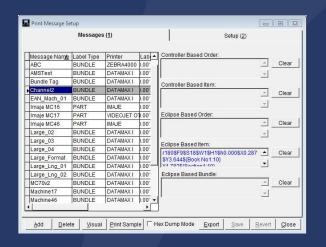


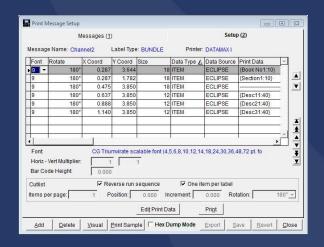


Bundle Tag/Part Printing



Bundle Tag/Part Printing





Visual Print Forma	it					23
X: 0.742	Y: 3.643	Height 1.930	Width: 0.455	Inches	Ayailable Fields:	
Scroll	1111	2	3-	4-	Order Number	-
Up -	80				Material	
7 = 1					Coil Number	
					Bundle Number	
					Quantity Programmed Quantity Done	
					Quantity Remaining	
					Quantity Increment	
					Length	
1 1 2					Pattern ID	
20					Current Time	
H 1					Current Date	
					Time Item was Produced	•
					Properties: BOOK NO	
					Liopeines, Book No	-
- 31	User4 User5					
	S 8 8				Name A	1
	コラゔ				▶ DATA SOURCE	4 1
					DATA TYPE	4 II
	Item Item				FONT NAME	-
Down	===				FONT SIZE	4 1
					LENGTH	+ 1
Scroll Left				Right	POSITION	-
					ROTATION	P C
Items per p	age:	1 <u>C</u> utlist Po	sition: 0.000			
Rotation:	180°	▼ Cutlist Incre	menţ: 0.000	Pr	int Sample Ok Clo	se
1		_				



Let's Make More Money!

After implementing Eclipse...

- 1. No more data entry downtime
- Fewer customer complaints & "yield loss"
- 3. Dialog with operators gets the stacker fixed
- 4. Smart capital spending on coil handling
- 5. OEE improves from 15.6% to 36%
- 6. Operating profit increase from \$114K to \$1.5M

Gross Profit \$2.26M Operati ng Profit \$1.5M

Overhea d \$750K



How Your Operator Feels About the Work



