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

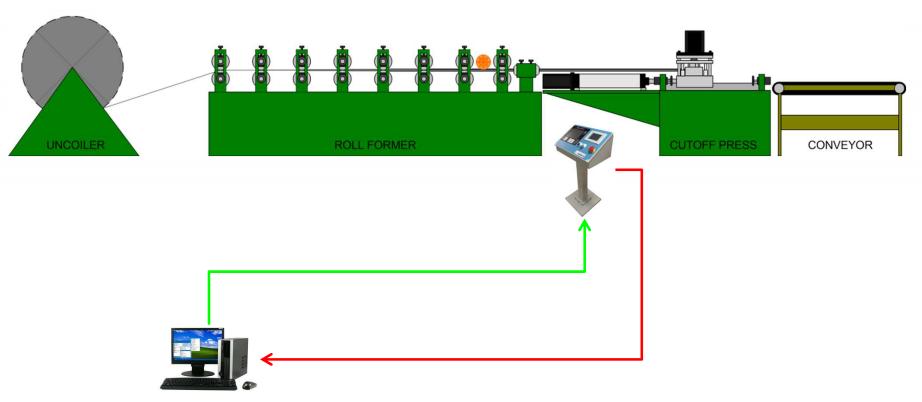


Topics

- 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?

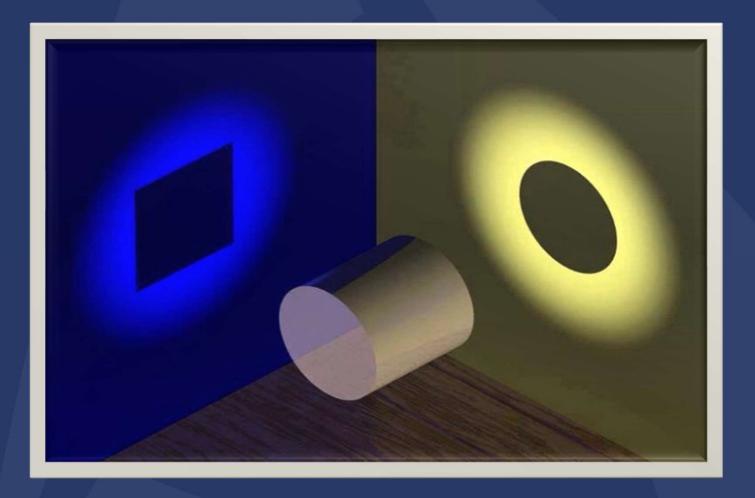
- Mistake-proofing
- On-time deliveries



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



How is Eclipse Viewed



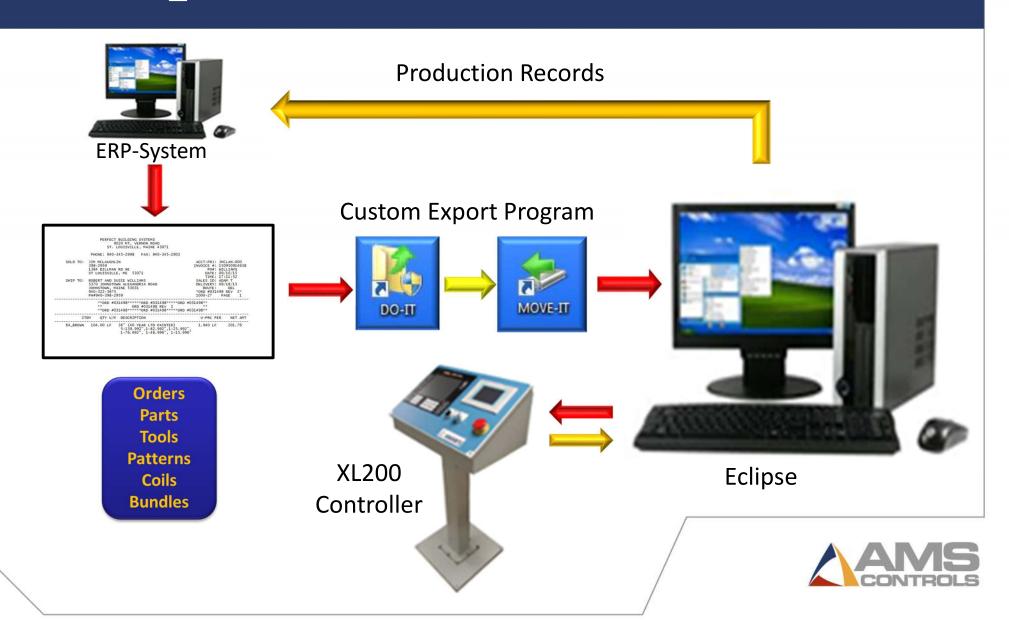


Eclipse Data Flow

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



Eclipse Data Flow



Order Import File





Order



Order/Invoice

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

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

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

INVOICE #: 150950914638 398-2959

1384 BILLMAN RD NE PO#: WILLIAMS DATE: 09/10/15 ST LOUISVILLE, ME 53071

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

ORD #031498***ORD #031498****ORD #031498** ** ORD #031498 REV 2

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

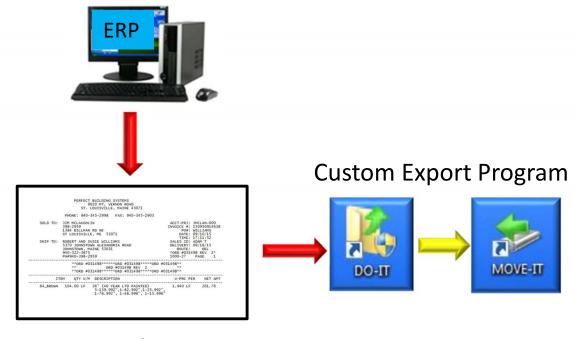
ITEM QTY U/M DESCRIPTION

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

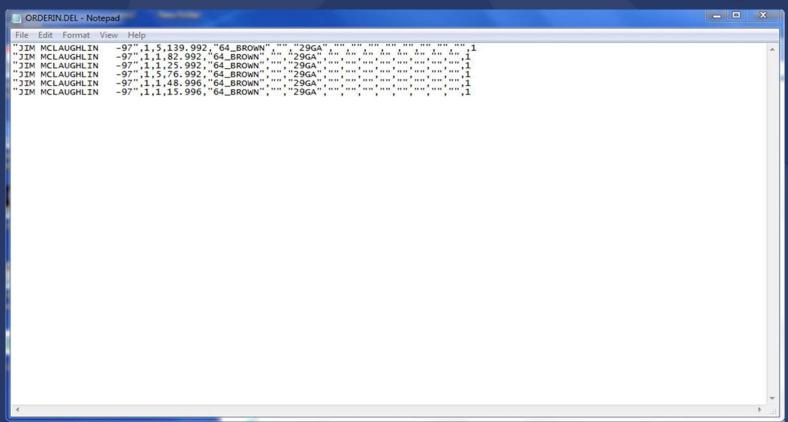


Order Import File







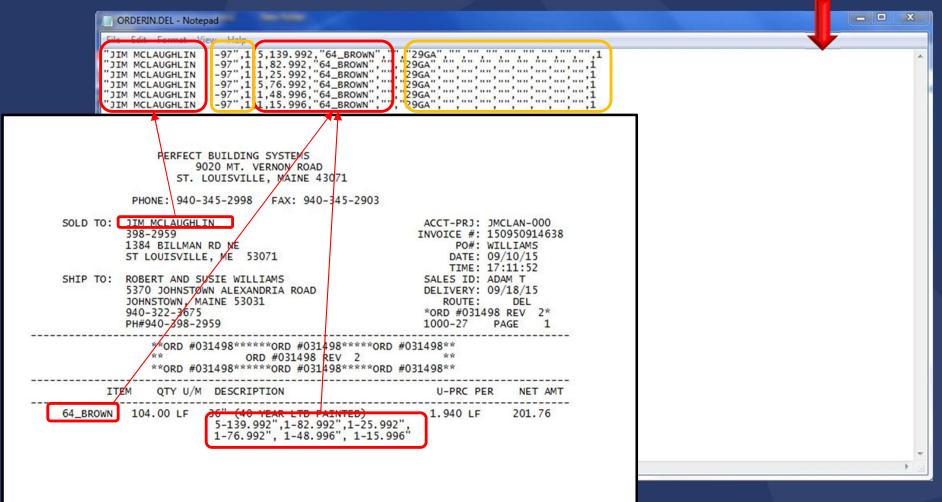


Import Orders



Order Import File

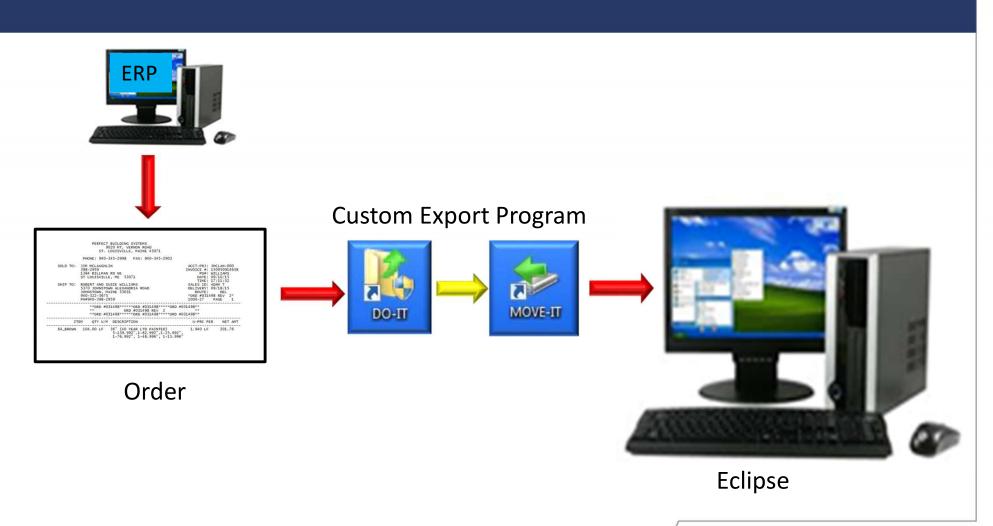




Import Orders

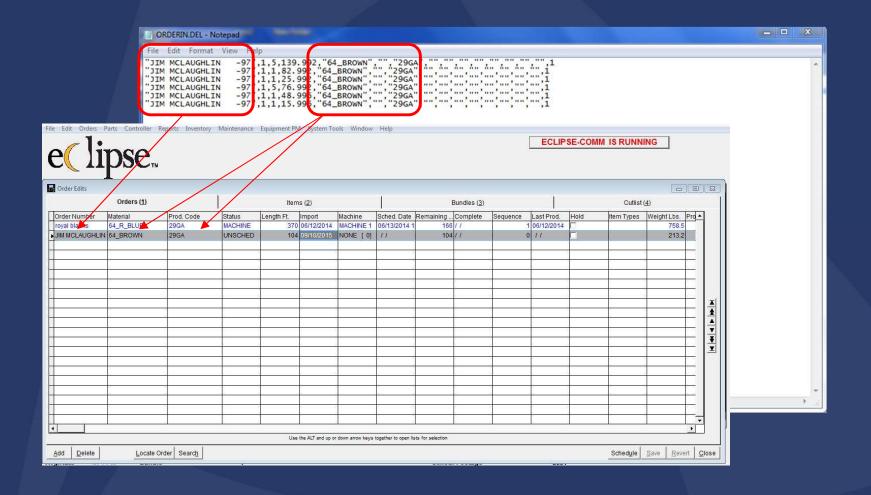


Order Import -Orderin.del File





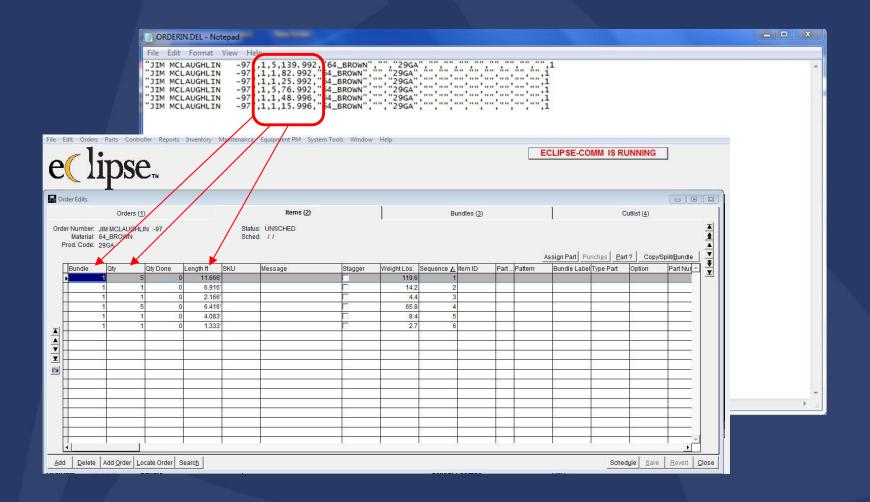
Order Import File



Import Orders



Order Import File



Import Orders



Order Import File-SQL

	order	bundle	qty	length	material	pcode	item_id	action	sglsegnce	sglstatus	sqlplant	adjdate	adjkeyno
1	S13257	1	21	324.000	CBU26	PBU26PBR	210124	A	1	C	16	2016-08-	
2	S13257	1	4	168.000	CBU26	PBU26PBR	210116	A	2	C	16	2016-08-	Initial Import
3	S13257	1	1	162.000	CBU26	PBU26PBR	210117	A	3	С	16		5 08:38:03.893 4489
4	S13257	1	1	156.000	CBU26	PBU26PBR	210118	Α	4	C	16		5 08:38:03.893 4490
5	S13257	1	1	150.000	CBU26	PBU26PBR	210119	Α	5	С	16	2016-08-2	5 08:38:03.893 4491
6	S13257	1	1	144.000	CBU26	PBU26PBR	210120	Α	6	С	16	2016-08-2	5 08:38:03.897 4492
7	S13257	1	1	138.000	CBU26	PBU26PBR	210121	Α	7	С	16		5 08:38:03.897 4493
8	S13257	1	1	132.000	CBU26	PBU26PBR	210122	Α	8	С	16		5 08:38:03.897 4494
9	S13257	1	1	126.000	CBU26	PBU26PBR	210123	Α	9	С	16	2016-08-2	5 08:38:03.900 4495
10	S13257	1	21	324.000	CBU26	PBU26PBR	210124	D	1	С	16	2016-0	4-1-01
11	S13257	1	4	168.000	CBU26	PBU26PBR	210116	Α	3	С	16	2016-0	1st Change
12	S13257	1	4	168.000	CBU26	PBU26PBR	210116	D	4	С	16	2016-09-0	2.08-27-17.057 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 - 3
17	S13257	1	1	156.000	CBU26	PBU26PBR	210118	Α		С	16	2016	fields, such as:
18	S13257	1	1	150.000	CBU26	PBU26PBR	210119	Α	3	-	16	2016	
19	S13257	1	1	150.000	CBU26	PBU26PBR	210119	D	10	С	16		Order, 2.) segui
20	S13257	1	1	144.000	CBU26	PBU26PBR	210120	D	11	С	16	2016	from the Machi
21	S13257	1	1	144.000	CBU26	PBU26PBR	210120	Α	12	С	16	2016	from the mach
22	S13257	1	1	138.000	CBU26	PBU26PBR	210121	Α	13	С	16	2016	notification to t
23	S13257	1	1	138.000	CBU26	PBU26PBR	210121	D	14	С	16	2016	mountained for
24	S13257	1	1	132.000	CBU26	PBU26PBR	210122	D	15	С	16	2016	
25	S13257	1	1	132.000	CBU26	PBU26PBR	210122	Α	16	С	16	2016	
26	S13257	1	1	126.000	CBU26	PBU26PBR	210123	Α	17	С	16	2016	
27	S13257	1	1	126.000	CBU26	PBU26PBR	210123	D	18	С	16	2016-09-0	2 08:27:17.067 4876
28	S13257	1	21	324.000	CBU26	PBU26PBR	210124	D	1	С	16	2016-09	2nd Change
29	S13257	1	21	324.000	CBU26	PBU26PBR	210124	Α	2	С	16	2016-09	OUT.SO. TO.ZES STOO
30	S13257	1	4	168.000	CBU26	PBU26PBR	210116	Α	3	С	16	2016-09-0	8 07:50:18.233 5142
31	S13257	1	4	168.000	CBU26	PBU26PBR	210116	D	4	С	16	2016-09-0	8 07:50:18.247 5133
32	S13257	1	1	162.000	CBU26	PBU26PBR	210117	Α	5	С	16	2016-09-0	8 07:50:18.257 5143
33	S13257	1	1	162.000	CBU26	PBU26PBR	210117	D	6	С	16	2016-09-0	8 07:50:18.267 5134
34	S13257	1	1	156.000	CBU26	PBU26PBR	210118	D	7	С	16	2016-09-0	8 07:50:18.277 5135
35	S13257	1	1	156.000	CBU26	PBU26PBR	210118	Α	8	C	16	2016-09-0	8 07:50:18.290 5144
36	S13257	1	1	150.000	CBU26	PBU26PBR	210119	D	9	C	16	2016-09-0	8 07:50:18.300 5136
37	S13257	1	1	150.000	CBU26	PBU26PBR	210119	Α	10	С	16	2016-09-0	8 07:50:18.310 5145
38	S13257	1	1	144.000	CBU26	PBU26PBR	210120	Α	11	С	16	2016-09-0	8 07:50:18.323 5146
39	S13257	1	1	144.000	CBU26	PBU26PBR	210120	D	12	С	16	2016-09-0	8 07:50:18.333 5137
40	S13257	1	1	138.000	CBU26	PBU26PBR	210121	D	13	C	16	2016-09-0	8 07:50:18.343 5138
41	S13257	1	1	138.000	CBU26	PBU26PBR	210121	Α	14	С	16	2016-09-0	8 07:50:18.357 5147
42	S13257	1	1	132.000	CBU26	PBU26PBR	210122	Α	15	С	16	2016-09-0	8 07:50:18.360 5148
43	S13257	1	1	132.000	CBU26	PBU26PBR	210122	D	16	С	16	2016-09-0	8 07:50:18.370 5139
44	S13257	1	1	126.000	CBU26	PBU26PBR	210123	D	17	С	16	2016-09-0	8 07:50:18.380 5140
45	S13257	1	1	126.000	CBU26	PBU26PBR	210123	Α	18	С	16	2016-09-0	8 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

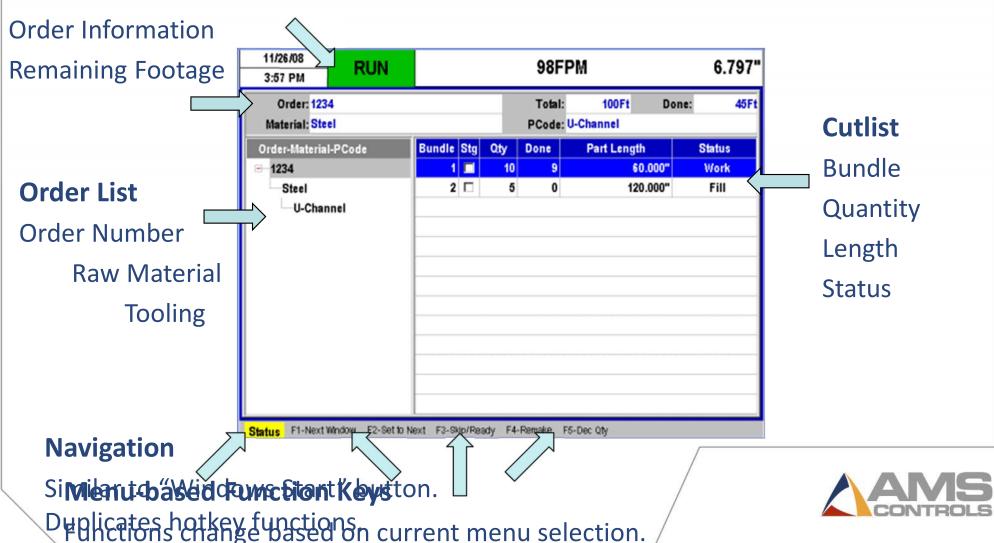
- Machine Controller Basics
- Scrap Handling
- Downtime Handling
- Coil Changes
- The Part Queue
- Calibration



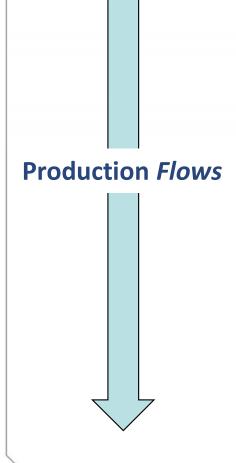


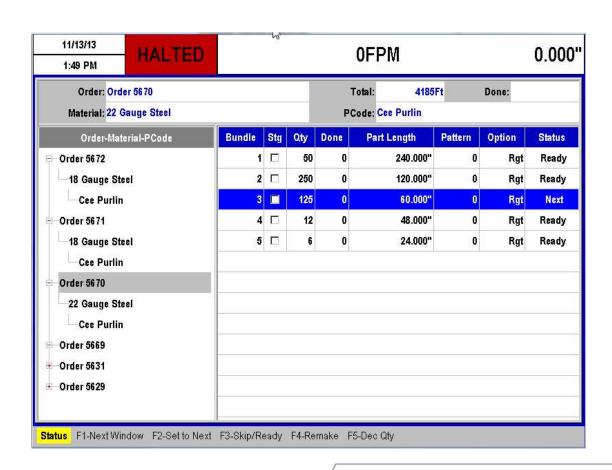
XL200-Controller Basics

Ctatest Orderstate/Time, Machine Status, Line Speed, Length Past Shear



XL200-Controller Basics



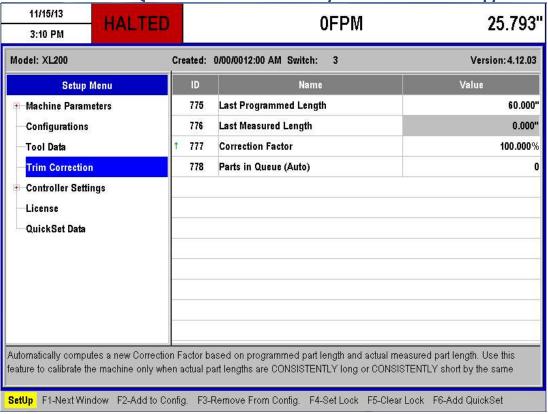




XL200-Part Queue

Shear-only Part Queue

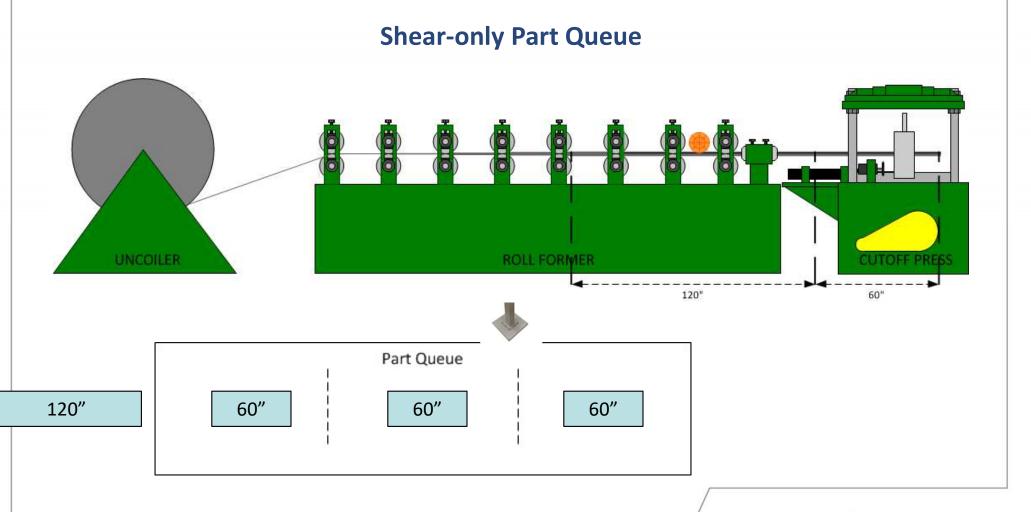
Two versions of the Part Queue: Shear-only and Punching



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



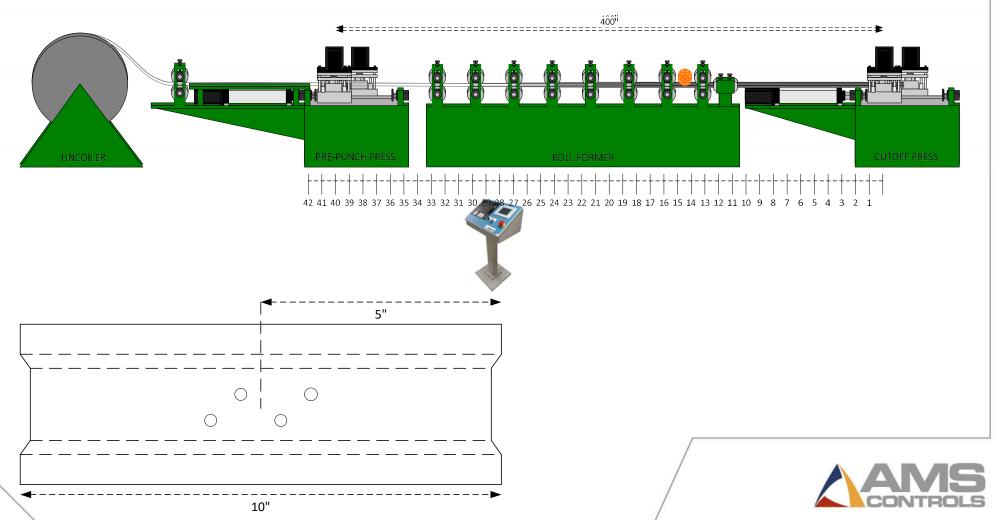
XL200-Part Queue





XL200-Part Queue

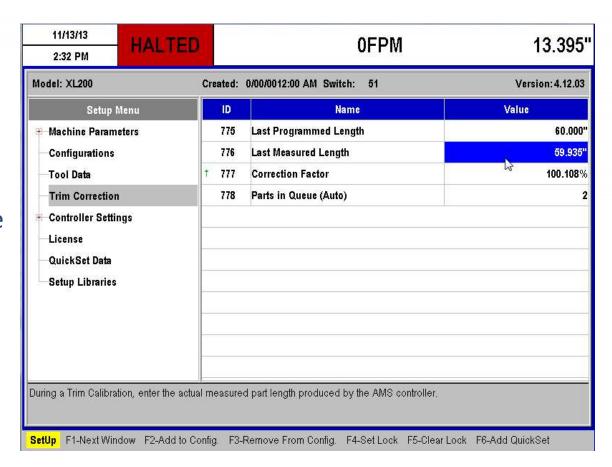
Punching Part Queue



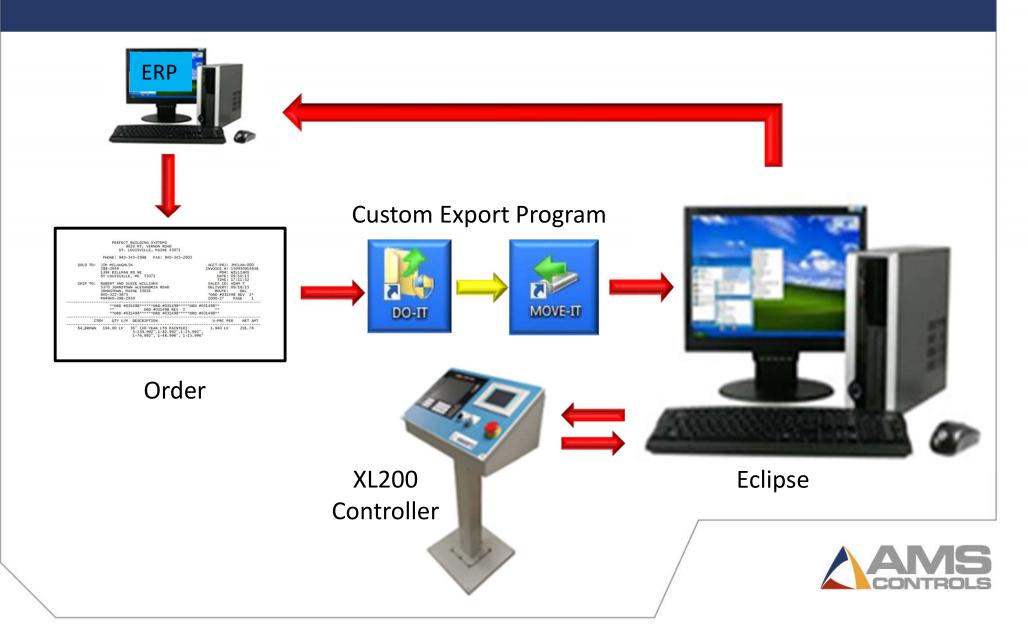
XL200-Length Calibration

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	oduction	Recor	ds						
TYPE	/ DATE	TIME	ORDER	MATERIAL	BNDL QTY	PATT. /OPT.	LENGTH IN.	INV COIL	FOOTAGE IN.	EMPL ID	SCR CD		DOWN TIME
Dat	a for file	: \ECLI	PSE\HISTOR	Y\PRD200802181.DBF									
ı	1] Multi	-profile	Line										
S B	02/18/2008	06:00:00			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	02/18/2008			Z05014400075	2					20207	0	0	0.12
1 T	02/18/2008	07:18:55	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
								3					
1 M	02/18/2008	07:27:47	291637	Z05014400075	2	000 R 1	41.732000	GW0092644	156.481	20207	0	0	0.00
1 M	02/18/2008	07:56:24	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:56:28	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:56:33	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:56:42	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.00
7	02/18/2008	07:57:27	291637	Z05014400075	2			<u> </u>		20207	0	7	38.53
3	02/18/2008			205014400075	2					20207	0	0	0.05
1 H	02/18/2008			Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.05
								3					
3	02/18/2008	07:58:12	291637	Z05014400075	2					20207	0	0	0.65
1 H	02/18/2008	07:58:15	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20207	0	0	0.05
7	02/18/2008	08:15:35	291637	Z05014400075	2					20226	0	7	17.33
3	02/18/2008			Z05014400075	2					20226		0	0.79
1 H	02/18/2008	08:16:23	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.01
3	02/18/2008	08:16:24	291637	Z05014400075	2					20226	0	0	0.02
1 H	02/18/2008	08:16:25	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	02/18/2008	08:16:28	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 3		20226	0	0	0.00
3	02/18/2008	08:16:29	291637	205014400075	2					20226	0	0	0.01
1 H	02/18/2008	08:16:30	291637	Z05014400075	2	000 R 1	41.732000	GW0092644 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	Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.02
3	02/18/2008	08:16:32	291637	205014400075	2					20226	0	0	0.01
1 H	02/18/2008			Z05014400075	2	000 R 1	41.732000	GW0092644		20226		0	0.00
3	02/18/2008	08:16:34	291637	Z05014400075	2					20226	0	0	0.04
	02/18/2008			Z05014400075	2	000 R 1	41.732000	GW0092644		20226	0	0	0.01
3	02/18/2008	08:17:24	291637	Z05014400075	2			_		20226	0	0	0.82
	02/18/2008			205014400075	_	1000 R 1	41.732000	GW0092644	141.735	20226		0	0.05
	,,				-			3				-	
7	02/18/2008	08:37:08	291637	Z05014400075	2					20226	0	8	19.68
3	02/18/2008	08:37:12	291637	Z05014400075	2					20226	0	0	0.07

Time: 10:32:27

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 Machin Operator ronning 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	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)
	P	Machine Operator removed power from the XL Series controller
	R	Machine Operator employed Remake function on Machine controller to replace Scrap parts
	T 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
	Ÿ	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	ľ.	XL Series controller reports an on-screen message (warning, error, notification)
7	X	Machine Operator reported a Downtime code



02/18/2008 07:12:83	Wor	ld-class	Roll F	orming	Pro	oduction	Recor	ds						
Note		/ DATE	TIME	ORDER	MATERIAL	BNDL QTY								DOWN TIME
S R 0 2/18/2008 07:121:53	Dat	a for file:	\ECLI	PSE\HISTO	RY\PRD200802181.DBF									
Fig. 0.2/18/2008 07:121:53	r	11 Multi-	-profile	Line										
4 02/18/2008 07:12:63 7 02/18/2008 07:12:63 8 02/18/2008 07:18:55 291637 205014400075 2 2000 R 141.732000GW0092644 20207			-			0					1		n	0.00
7 02/18/2008 07:18:48 291637						~					-	0	0	0.00
3 02/18/2008 07:18:55 291637					205014400075	-					-	0	-	78.80
1 T 02/18/2008 07:18:55 291637												0	0	0.12
1 N 02/18/2008 07:27:47 291637							000 p 1	41 722000	0.0000000000000000000000000000000000000			0	0	0.00
1 M 02/18/2008 07:27:47 291637	1 1	02/18/2008	07:10:33	291037	203014400073	2	000 K 1	.41.752000			20207	0	0	0.00
1 N 02/18/2008 07:56:28 291637	1 M	02/18/2008	07:27:47	291637	Z05014400075	2	000 R 1	.41.732000	GW0092644	156.481	20207	0	0	0.00
1 N 02/18/2008 07:56:33 291637	1 M	02/18/2008	07:56:24	291637	Z05014400075	2	000 R 1	.41.732000			20207	0	0	0.00
3	1 M	02/18/2008	07:56:28	291637	Z05014400075	2	000 R 1	.41.732000			20207	0	0	0.00
3	1 M	02/18/2008	07:56:33	291637	Z05014400075	2	000 R 1	.41.732000			20207	0	0	0.00
3 02/18/2008 07:57:30 291637 205014400075 2 000 R 141.732000cw0092644 20207 1 H 02/18/2008 07:58:12 291637 205014400075 2 000 R 141.732000cw0092644 20207 2 02/18/2008 07:58:15 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:22 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:22 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:25 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:25 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:28 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:28 291637 205014400075 2 000 R 141.732000cw0092644 20226 1 H 02/18/2008 08:16:28 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:30 291637 205014400075 2 000 R 141.732000cw0092644 20226 1 H 02/18/2008 08:16:30 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:30 291637 205014400075 2 000 R 141.732000cw0092644 20226 1 H 02/18/2008 08:16:31 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226 3 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000cw0092644 20226	1 M	02/18/2008	07:56:42	291637	Z05014400075	2	000 R 1	.41.732000			20207	0	0	0.00
1 H 02/18/2008 07:57:33 291637	7	02/18/2008	07:57:27	291637	Z05014400075	2					20207	0	7	38.53
3	3	02/18/2008	07:57:30	291637	Z05014400075	2					20207	0	0	0.05
3	1 H	02/18/2008	07:57:33	291637	Z05014400075	2	000 R 1	41.732000	GW0092644		20207	0	0	0.05
1 H	_			_					3					
3	3	02/18/2008	07:58:12	29 1637	Z05014400075	2					20207	0	0	0.65
3 02/18/2008 08:16:22 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:23 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:25 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:29 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:31 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 1000 R 141.732000GW0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 1000 R 141.732000GW0092644 141.735 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000GW0092644 141.735 20226	1 H	02/18/2008	07:58:15	291637	Z05014400075	2	000 R 1	.41.732000			20207	0	0	0.05
1 H 02/18/2008 08:16:23 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:25 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:29 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:31 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 20226		02/18/2008	08:15:35	291637	Z05014400075	2					20226	0	7	17.33
3 02/18/2008 08:16:24 291637 Z05014400075 Z											20226	0	0	0.79
1 H 02/18/2008 08:16:25 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:29 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:31 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 1000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 1000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226	1 H	02/18/2008	08:16:23	291637	Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.01
3 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 2 000 R 141.732000Gw0092644 2022	3	02/18/2008	08:16:24	291637	Z05014400075	2					20226	0	0	0.02
1 H 02/18/2008 08:16:28 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 3 02/18/2008 08:16:30 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:31 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:35 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 2 D02/18/2008 08:37:08 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226	1 H	02/18/2008	08:16:25	291637	Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.02
3 02/18/2008 08:16:29 291637 Z05014400075 Z 2 000 R 141.732000Gw0092644 20226 Z0226	3	02/18/2008	08:16:28	291637	Z05014400075	2					20226	0	0	0.05
1 H 02/18/2008 08:16:30 291637	1 H	02/18/2008	08:16:28	291637	Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.00
3 02/18/2008 08:16:30 291637 Z05014400075 2 2000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:31 291637 Z05014400075 2 3000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:35 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:37:08 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226	3	02/18/2008	08:16:29	291637	Z05014400075	_					20226	0	0	0.01
1 H 02/18/2008 08:16:31 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 300 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:34 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 300 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:37:08 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 2	1 H				Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.02
3 02/18/2008 08:16:32 291637 Z05014400075 2 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:32 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:34 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:35 291637 Z05014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 7 02/18/2008 08:37:08 291637 Z05014400075 2 2 20226	_					-							0	0.00
1 H 02/18/2008 08:16:32 291637 205014400075 2 000 R 141.732000Gw0092644 20226 3 02/18/2008 08:16:34 291637 205014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 205014400075 2 000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:17:24 291637 205014400075 2 0226 1 H 02/18/2008 08:17:27 291637 205014400075 2 1000 R 141.732000Gw0092644 141.735 20226 7 02/18/2008 08:37:08 291637 205014400075 2 20226	1 H	02/18/2008	08:16:31	291637	Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.02
3 02/18/2008 08:16:34 291637 Z05014400075 2 2000 R 141.732000Gw0092644 20226 1 H 02/18/2008 08:16:35 291637 Z05014400075 2 3000 R 141.732000Gw0092644 20226 3 02/18/2008 08:17:24 291637 Z05014400075 2 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 7 02/18/2008 08:37:08 291637 Z05014400075 2 20226	-											0		0.01
1 H 02/18/2008 08:16:35 291637	1 H	02/18/2008	08:16:32	291637	Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.00
3 02/18/2008 08:17:24 291637 Z05014400075 2 20226 1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 7 02/18/2008 08:37:08 291637 Z05014400075 2 20226	_												0	0.04
1 H 02/18/2008 08:17:27 291637 Z05014400075 2 1000 R 141.732000Gw0092644 141.735 20226 3 Z05014400075 2 Z05014400075 2	1 H	02/18/2008	08:16:35	291637	Z05014400075	2	000 R 1	.41.732000			20226	0	0	0.01
3 7 02/18/2008 08:37:08 291637 205014400075 2 20226	3	02/18/2008	08:17:24	291637	Z05014400075						20226	0	0	0.82
	1 H	02/18/2008	08:17:27	291637	Z05014400075	2	1000 R 1	.41.732000		141.735	20226	0	0	0.05
3 02/18/2008 08:37:12 291637 205014400075 2 20226	7	02/18/2008	08:37:08	291637	Z05014400075	2					20226	0	8	19.68
	3	02/18/2008	08:37:12	291637	Z05014400075	2					20226	0	0	0.07

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
	c	Coll Jaijous 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
	ı	AL series controller reports dundle completion, out wachine 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
	1 1	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
	Ŷ	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 Tailgusituation
2	Ĭ	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	Ø :	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	20	Machine Operator reported a Downtime code



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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	SCR CD		L DOWN TIME
Dat	a for file	: \EC	LIPSE\HIST	ORY\PRD200802181.DBF									
	11 Multi	-profil	o Tino										
	02/18/2008	_			0					1	0	Ω	0.00
4	02/18/2008				0					1	0	0	0.00
7	02/18/2008			205014400075	2					20207	0		78.80
-			55 291637	Z05014400075	2					20207	0		0.12
1 т	0 <mark>748/2008</mark>	07:18:	55 291637	Z05014400075	2	000 R 1	41.73200	0GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:27	47 291637	Z05014400075	2	000 R 1	41.73200	3)GW0092644	156.481	20207	0	0	0.00
1 M	02/18/2008	07:56:	24 291637	Z05014400075	2	000 R 1	41.73200	GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:56:	28 291637	z05014400075	2	000 R 1	41.73200	3 GW0092644		20207	0	0	0.00
1 M	02/18/2008	07:56:	33 291637	Z05014400075	~~	000 R 1	41.73200	3 3		20207	0	0	0.00
1 M	02/18/2008	07:56:	42 291637	Z05014400075	2	000 8 1	41.73200	3 GW0092644		20207	0	0	0.00
7	02/18/2008	07:57:	27 291637	Z05014400075	2			_		20207	0	7	38.53
3	02/18/2008	07:57:	30 291637	Z05014400075	2					20207	0	0	0.05
1 H	02/18/2008	07:57:	33 291637	Z05014400075	2	000 R 1	41.73200	3 GW0092644		20207	0	0	0.05
3	02/18/2008	07:58:	12 291637	Z05014400075	2			3	_	20807	0	0	0.65
	02/18/2008			205014400075	2	000 R 1	41.73200	0GW0092644		20207	<u>_</u>	ō	0.05
								3					
7	02/18/2008			Z05014400075	2					20226			17.33
3	02/18/2008			Z05014400075	2					20226	0	0	0.79
1 H	02/18/2008	08:16:	23 291637	Z05014400075	2	000 R 1	.41.73200	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			Z05014400075	2					20226	0		0.02
1 H	02/18/2008	08:16:	25 291637	Z05014400075	2	000 R 1	41.73200	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		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	Z05014400075	2	000 R 1	41.73200	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20226	0	0	0.00
3	02/18/2008	08:16:	29 291637	205014400075	2					20226	0	0	0.01
1 H	02/18/2008	08:16:	30 291637	Z05014400075	2	000 R 1	41.73200	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20226	0	0	0.02
3	02/18/2008			Z05014400075	2					20226	0	0	0.00
1 H	02/18/2008	08:16:	31 291637	Z05014400075	2	000 R 1	41.73200	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20226	0	0	0.02
3	02/18/2008			Z05014400075	2					20226	0		0.01
	02/18/2008			Z05014400075	2	000 R 1	41.73200	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		20226	0	0	0.00
3	02/18/2008			Z05014400075	2					20226	0		0.04
1 H	02/18/2008	08:16:	35 291637	Z05014400075	2	000 R 1	41.73200	3 GW0092644		20226	0	0	0.01
3	02/18/2008			Z05014400075	2					20226	0	~	0.82
1 H	02/18/2008	08:17:	27 291637	Z05014400075	2	1000 R 1	41.73200	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			Z05014400075	2					20226	0	0	0.07

Time: 10:32:27

Type	Reason	7
Code	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
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	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
	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
	Ť	XL Series controller automatically halted Machine due to Out of Tolerance part
	х	wacmine 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
	1	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	K	Machine Operator powered up XI. 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	\$X	Machine Operator reported a Downtime code



Woi	cld-cla	ıss	Roll	Formin	3	Pro	oduction	Reco	rds						
TYPE	e/ DAT	E	TIME	ORDI	ER	MATERIAL	BNDL QTY	PATT. /OPT.	LENGTH IN.	INV COIL NUMBER	FOOTAGE IN.	EMPL ID	SCR CD		DOWN
Dat	ta for f	ile:	\EC	LIPSE\HI	STORY\PRD20	0802181.DBF									
Ε	1] Mu	ılti-	profil	e Line											
S R	02/18/	2008	06:00:	00			0					1	0	0	0.00
4	02/18/						0					1	0	0	0.00
7	02/18/	2008	07:18:	48 29163	7	205014400075	2					20207	0	1	78.80
3	02/18/	2008	07:18:	55 29163	7	205014400075	2					20207	0	0	0.12
1 T	02/18/	2008	07:18:	55 29163	7	Z05014400075	2	000 R	141.73200	00GW0092644		20207	0	0	0.00
1 M	02/18/	2008	07:27:	47 29163	7	Z05014400075	2	000 R	141.73200	3 00GW0092644 3	156.481	20207	0	0	0.00
1 M	02/18/	2008	07:56:	24 29163	7	Z05014400075	2	000 R	141.73200	00GW0092644		20207	0	0	0.00
1 M	02/18/	2008	07:56:	28 29163	7	Z05014400075	2	000 R	141.7320	3 OGW0092644 3		20207	0	0	0.00
1 M	02/18/	2008	07:56:	33 29163	7	Z05014400075	2	000 R	141.73200	00GW0092644 3		20207	0	0	0.00
1 M	02/18/	2008	07:56:	42 29163	7	Z05014400075	2	000 R	141.73200	00GW0092644 3		20207	0	0	0.00
7	02/18/	2008	07:57:	27 29163	7	Z05014400075	2					20207	0	7	38.55
3	02/18/	2008	07:57:	30 29163	7	Z05014400075	2					20207	0	0	0.05
1 H	02/18/	2008	07:57:	33 29163	7	Z05014400075	2	000 R	141.73200	00GW0092644 3		20207	0	0	0.05
3	02/18/	2008	07:58:	12 29163	7	Z05014400075	2					20207	0	0	0.65
1 H	02/18/	2008	07:58:	15 29163	7	Z05014400075	2	000 R	141.73200	00GW0092644 3		20207	0	0	0.05
7				35 29163		Z05014400075	2					20226			17.33
3				22 29163		Z05014400075	2					20226	0	0	0.79
1 H				23 29163		Z05014400075	2	000 R	141.73200	00GW0092644 3		20226			0.01
3				24 29163		Z05014400075	2					20226	0		0.02
				25 29163		205014400075	2	000 R	141.73200	00GW0092644 3		20226	0		0.02
3				28 29163		Z05014400075	2					20226	0		0.05
				28 29163		Z05014400075	2	000 R	141.73200	00GW0092644 3		20226	0		0.00
3				29 29163		Z05014400075	2					20226	0	0	0.01
				30 29163		Z05014400075	2	000 R	141.73200	00GW0092644 3		20226	0	0	0.02
3				30 29163		Z05014400075	2					20226	0	0	0.00
				31 29163		Z05014400075	2	000 R	141.73200	00GW0092644 3		20226	0		0.02
3				32 29163		Z05014400075	2					20226	0		0.01
				32 29163		Z05014400075	2	000 R	141.73200	00GW0092644 3		20226	0	0	0.00
3				34 29163		Z05014400075	2					20226	0		0.04
				35 29163		Z05014400075	2	000 R	141.73200	00GW0092644 3		20226		·	0.01
3				24 29163		Z05014400075	2					20226			0.82
1 H	02/18/	2008	08:17:	27 29163	7	Z05014400075	2	1000 R	141.73200	00GW0092644 3	141.735	20226	0	0	0.05
7	02/18/	2008	08:37:	08 29163	7	Z05014400075	2					20226	0	8	19.68
3	02/18/	2008	08:37:	12 29163	7	Z05014400075	2					20226	0	0	0.07

Time: 10:32:27

Туре	Reason	Bestiption
1		General Production Record
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode
	c	Coil <u>Tailous</u> 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
	ı	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
		W. S
	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
	Ť	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
	Ŷ	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	0	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	68.	Machine Operator reported a Downtime code

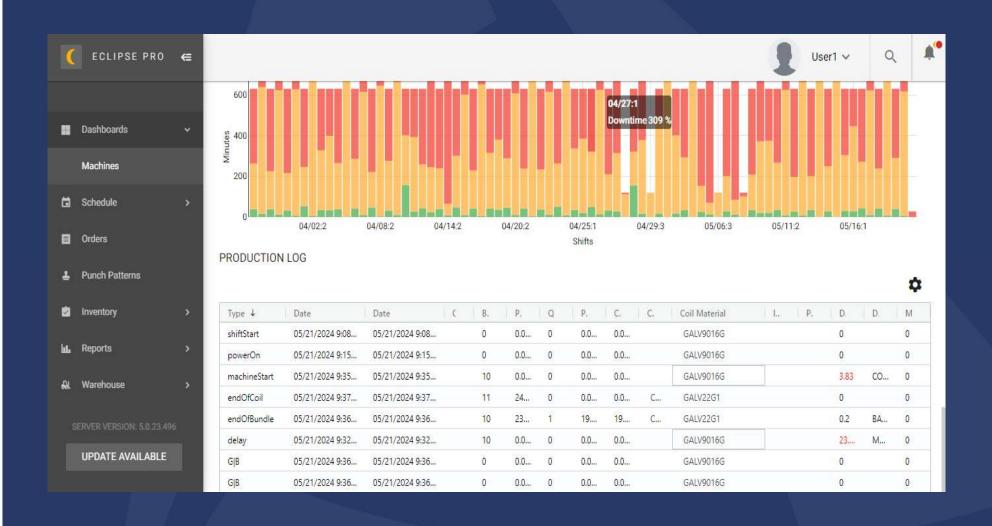


Wor	ld-cla	ss	Roll F	orming		Pro	duction	Recor	ds							
TYPE R	/ DAT	E	TIME	ORDER	MAT	ERIAL	BNDL QTY	PATT. /OPT.	LENGT		INV COIL NUMBER	FOOTAGE IN.	EMPL ID	SCR		L DOWN TIME
Dat	a for f	ile:	\ECL1	PSE/HIST	ORY\PRD20080	2181.DBF										
Ε	1] Mu	lti-	-profile	Line												
SR	02/18/2	2008	06:00:00	1			0						1		0	0.00
7			07:18:48			014400075	2						20207		1	78.80
1 T			07:18:55 07:18:55			014400075	2	000 R :	141.7320	000G	W0092644		20207		0	0.00
1 M	02/18/2	008	07:27:47	291637	Z05	014400075	2	000 R :	141.7320	_	W0092644	156.481	20207		0	0.00
1 M	02/18/2	008	07:56:24	291637	Z05	014400075	2	000 R	11.7320	_	W0092644		20207		0	0.00
1 M	02/18/2	2008	07:56:28	291637	Z05	014400075	2	000 R	141. 320	_	W0092644		20207		0	0.00
1 M	02/18/2	2008	07:56:33	291637	Z05	014400075	2	000 R	141.7320	00G	W0092644		20207		0	0.00
1 M	02/18/2	8008	07:56:42	291637	Z05	014400075	2	000 R	141.7320	000G	0092644		20207		0	0.00
7	02/18/2	2008	07:57:27	291637	Z05	014400075	2			_			20207		7	38.53
3	02/18/2	2008	07:57:30	291637	Z05	014400075	2						20207		0	0.05
1 H	02/18/2	2008	07:57:33	291637	Z05	014400075	2	000 R	141.7320	00G	w0092644		20207		0	0.05
3	02/18/2	8008	07:58:12	291637	Z05	014400075	2						20207		0	0.65
1 H			07:58:15			014400075	2	000 R	141.7320	00G	W0092644		20207		0	0.05
7	02/18/2	2008	08:15:35	291637	205	014400075	2					\	20226		7	17.33
3	02/18/2	2008	08:16:22	291637	Z05	014400075	2					\	20226		0	0.79
1 H	02/18/2	008	08:16:23	291637	Z05	014400075	2	000 R	141.7320	00G 3	W0092644		0226		0	0.01
3	02/18/2	008	08:16:24	291637	205	014400075	2						2022		0	0.02
1 H	02/18/2	2008	08:16:25	291637	Z05	014400075	2	000 R	141.7320	00G 3	W0092644		20226		0	0.02
3	02/18/2	2008	08:16:28	291637	Z05	014400075	2						20226		0	0.05
1 H	02/18/2	008	08:16:28	291637	Z05	014400075	2	000 R	141.7320	000G 3	W0092644		20226))	0.00
3	02/18/2	008	08:16:29	291637	205	014400075	2						20226		0	001
1 H	02/18/2	2008	08:16:30	291637	Z05	014400075	2	000 R	141.7320	00G 3	W0092644		20226		0	0.0
3	02/18/2	2008	08:16:30	291637	Z05	014400075	2						20226		0	0.00
1 H	02/18/2	8008	08:16:31	291637	Z05	014400075	2	000 R	141.7320	000G 3	W0092644		20226		0	0.02
3	02/18/2	008	08:16:32	291637	Z05	014400075	2						20226		0	0.01
1 H	02/18/2	008	08:16:32	291637	Z05	014400075	2	000 R	141.7320	000G 3	W0092644		20226		0	0.00
3	02/18/2	2008	08:16:34	291637	Z05	014400075	2						20226		0	0.04
1 H	02/18/2	8008	08:16:35	291637	Z05	014400075	2	000 R	141.7320	00G 3	W0092644		20226		0	0.01
3	02/18/2	008	08:17:24	291637	Z05	014400075	2						20226		0	0.82
1 H	02/18/2	2008	08:17:27	291637	Z05	014400075	2	1000 R	141.7320	00G	W0092644	141.735	20226		0	0.05
										3						
7			08:37:08			014400075	2						20226		_	19.68
3	U2/18/2	800	08:37:12	291637	Z05	014400075	2						20226		0	0.07

Time: 10:32:27

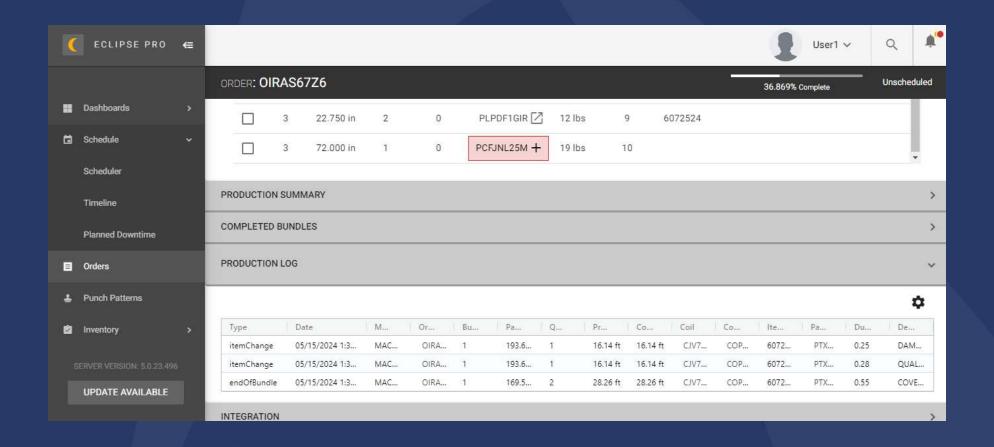
Type Code	Reason Code	Description					
1		General Production Record					
	В	Machine halted automatically due to a Bundle number change. The XL Series controller must be in Bundle Halt Mode					
	с	Coil Jailous sensor detects passage of end of Coil. Machine is automatically halter and End of Coil Scrap Code is reported for any remaining Material, unless Machin Operator ronning 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					
	Ŷ	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					
	ı	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	0	Machine Operator powered up XL Series controller					
5		Order requested by Machine Operator from XL Series controller					
6	V	XI Series controller reports an on-screen message (warning, error, notification)					
7	8	Machine Operator reported a Downtime code					





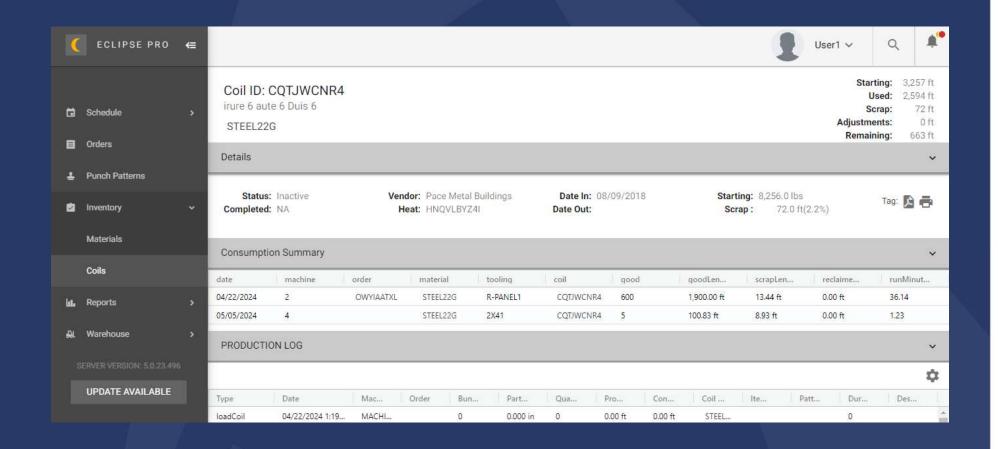






Eclipse Pro Report

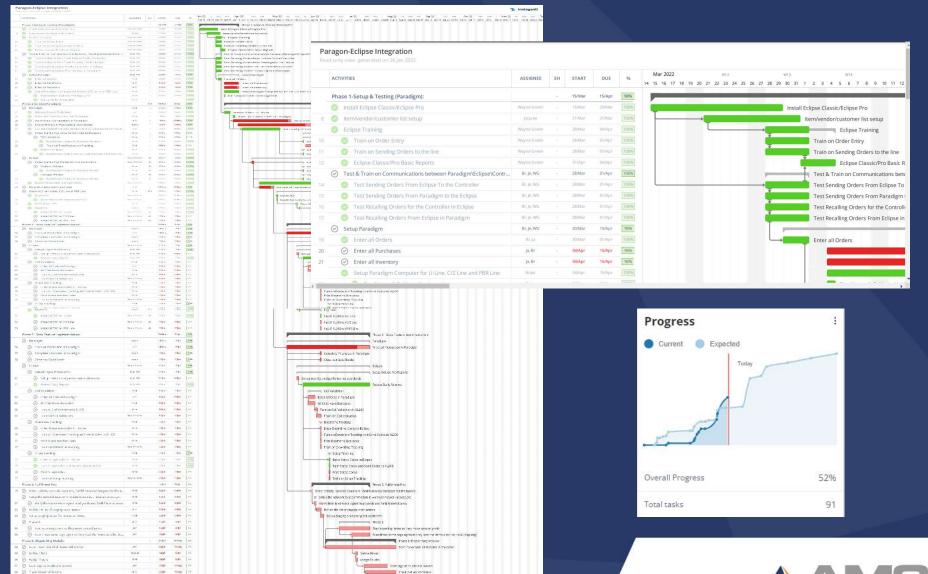




Eclipse Pro Report



ERP-Integration Gantt Chart



Proce 7: Maintenance Tracking.

Bit made stant Doc
Proce 5: Confirmation and Prop
Ph. Bit made stant Doc



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



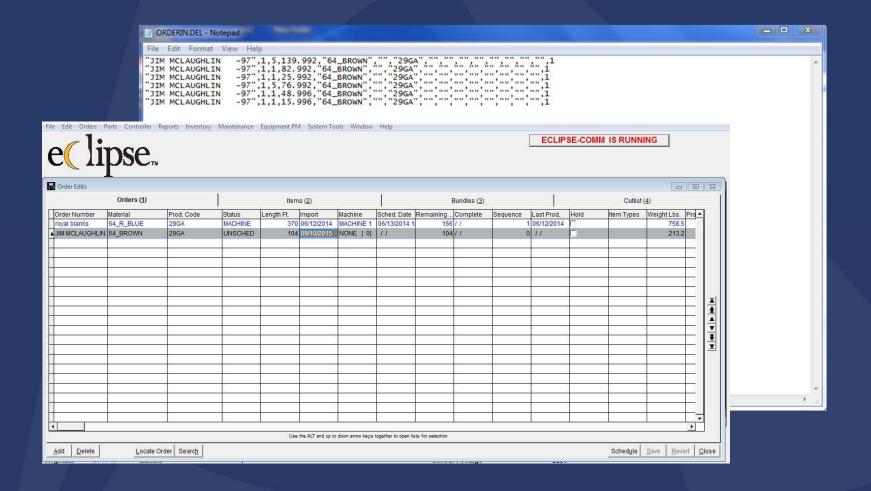
Mistakes Happen!

- 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



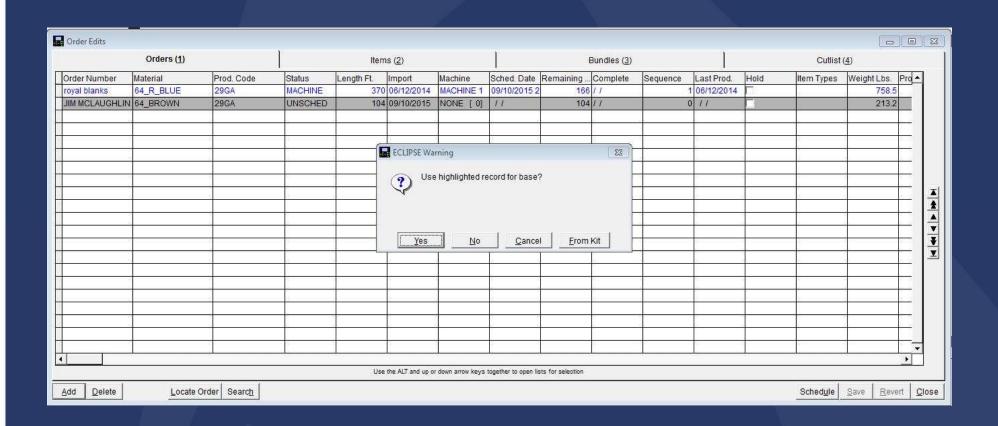
Wrong Orders & The Eclipse Solution



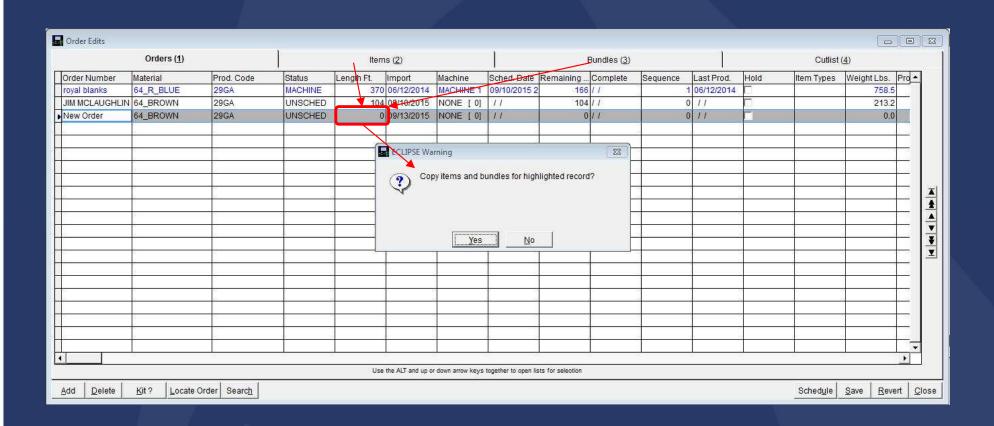


Import Orders

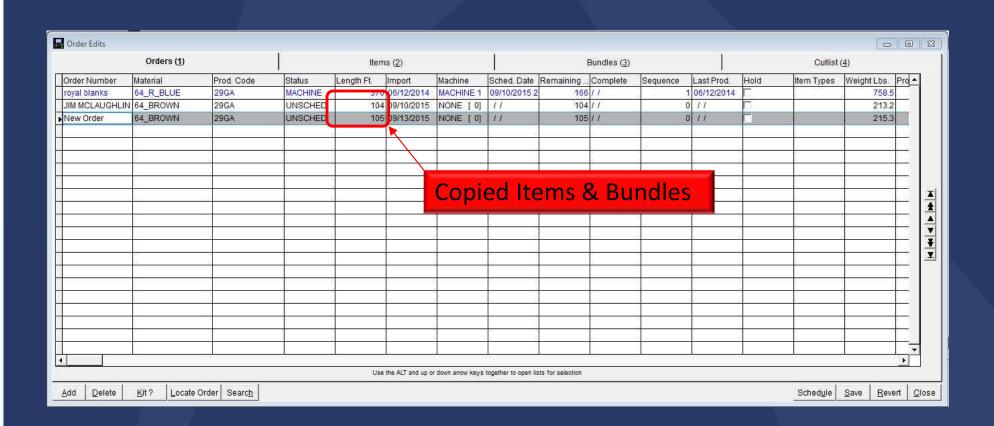




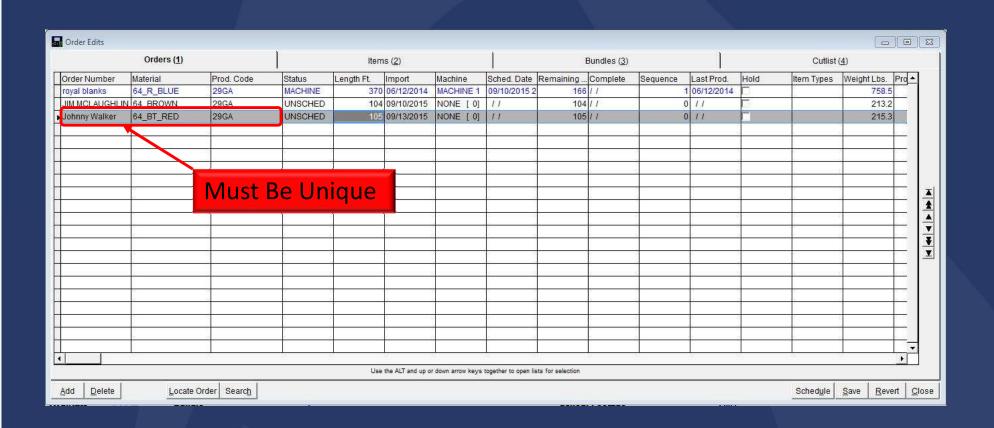








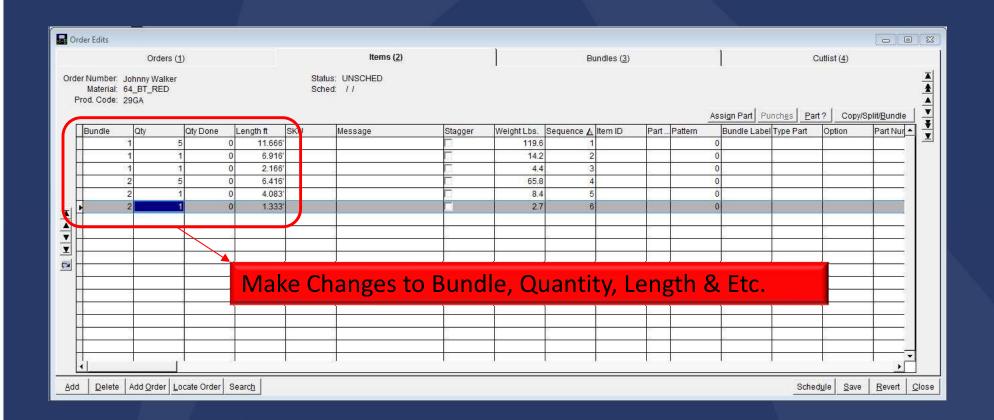




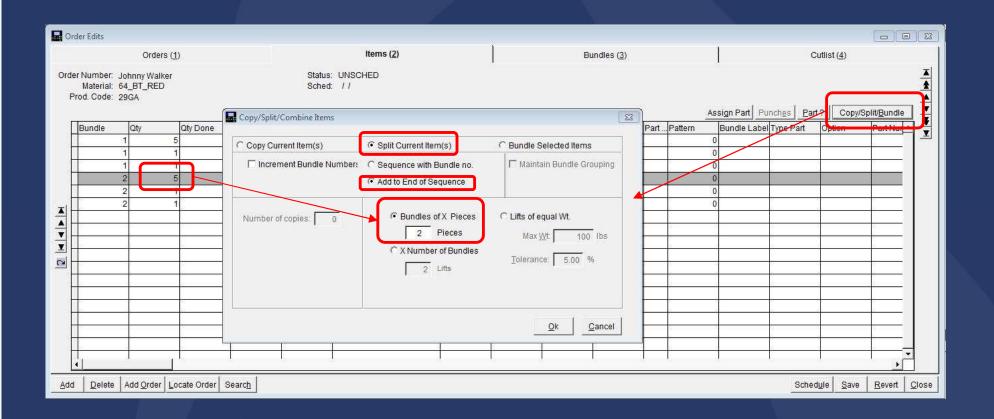




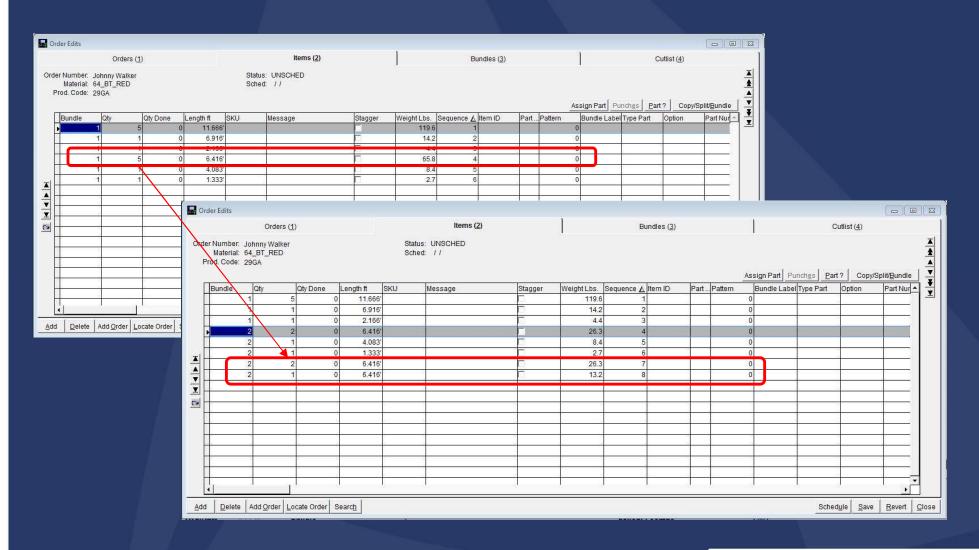




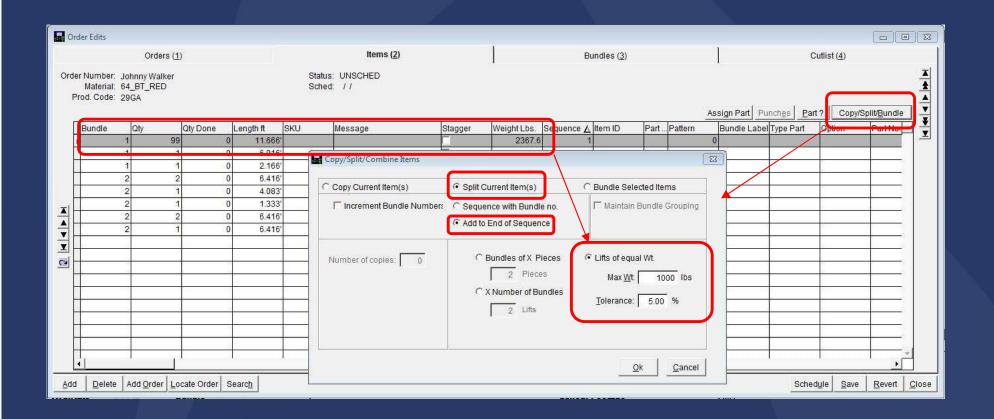




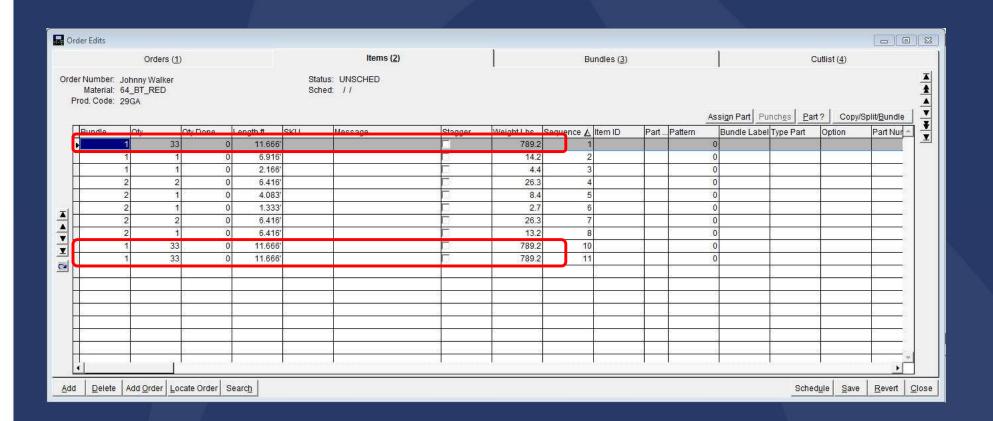














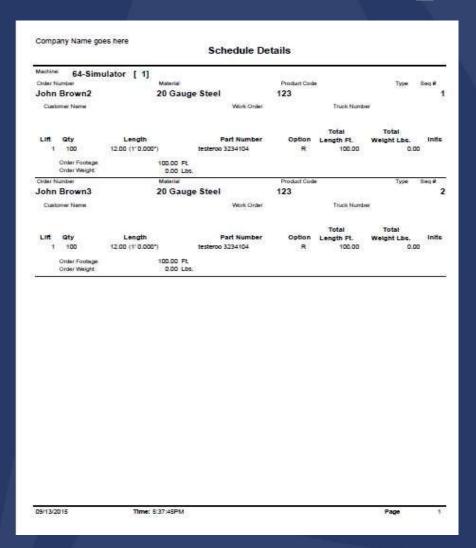
Order Data-Reports

Seq # Machine	Order #	Material	Prod	Code	Туре	Weight	Lbs.	Length Ft.
3	Johnny Walker	ZH5016400150 NEW MATERIAL FROM	EDMP				3326	1663.38
4	Jim Beam	ZH5016400150 NEW MATERIAL FROM	DUO5 ORDER	TEST	MATERI	AL	984	492.12
			libto	rial Tota	al:		4311	2155.51
5	291500	207004930050 NEW MATERIAL FROM	DU05 ORDER	IEST	MATERI	AL	509774	169924.85
6	296589	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATERI	AL	289806	96602.16
7	292506	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATERI	AL	510093	170031.15
8	296079	207004930050 NEW MATERIAL FROM	DU05 ORDER	TEST	MATERI	AL	399365	133121.78
9	294159	207004930050 NEW MATERIAL FROM	DU05 ORDER	IEST	MATERI	AL	408188	136062.72
			libto	terial Total:			2117228	705742.68
10	293948	205013470115 661	661	64 5	JUD 1.	15EMI	9153	4921.25
			Mate	rial Tota	d:	-	9153	4921.25
11	294471	207004930050 NEW MATERIAL FROM	DUC5 ORDER	TEST	MATERI	AL	408188	136062.72
12	Set <mark>Op Info</mark>	207004930050 NEW MATERIAL FROM	DUC5 ORDER	TEST	MATERI	AL	285731	95243.90
			Mate	rial Tota	d:		693919	231306.62
13	291813	Z05013470115 661	661	64 5	TUD 1.	15BMT	6407	3444.87
			Material Total:			0	6407	3444.87
				To	tal:	ST 3	2831019	947570.94

Order Sequence Report Forward Looking



Order Data-Reports



Order Schedule Report

Forward Looking

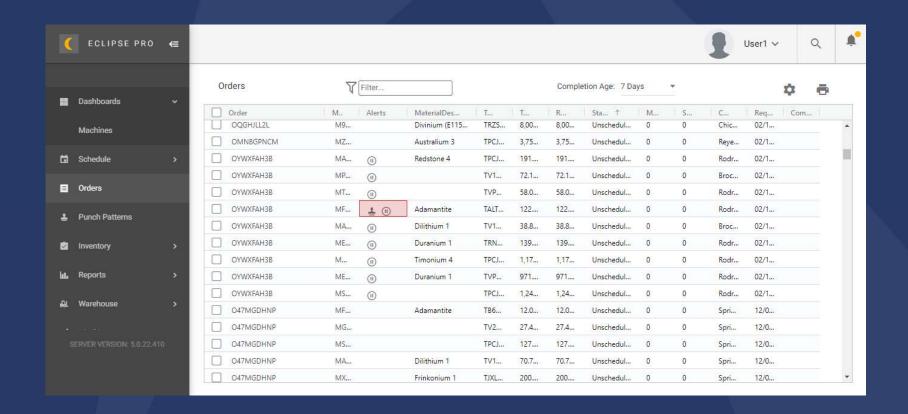


Order Data-Reports

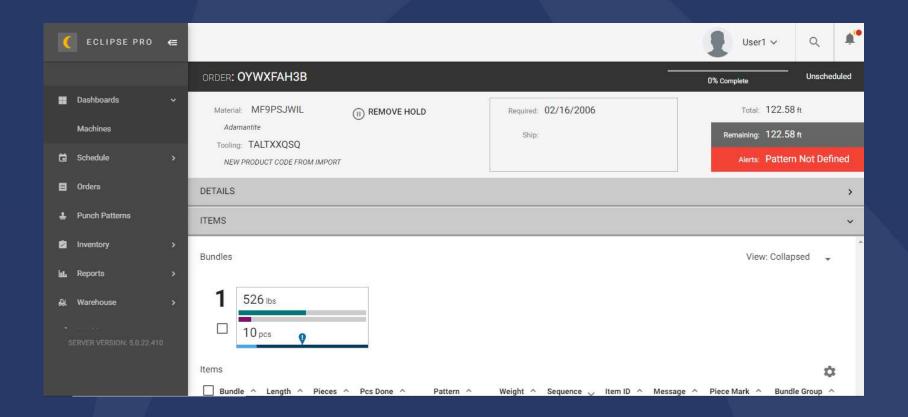
Company Name goes here			Orger :	Summary					
		Dates bety	veen 12/0	8/2014 and	12/15/20	14			
order: 296079 lundle ld:	Material: 2	207004930050		Pcode	DUO5				
oll Nbr. tachine:	Coll Material:			Heat Numb	er.				
Bundle City Length	Part Number Employee	Opt	Total Good Ft.	Total Good Lbs.	Net Scrap Ft.	Net Scrap Lbs.	Reclaimed Scrap Ft.	Bundle Code	Time & Duration
0 0 0.000 ft Sent to Sundie ld: 38148488	o machine #51		0.00	0.00	0.00	0.00	0.000		11:07:57
Coll Nbr. 1 Machine: Training Room [51]	Coll Material: NO COIL MATCH		Heat Number:						
Bundle Qty Length	Part Number Employee: 20	Opt	Total Good Ft.	Total Good Lbs.	Net Scrap Ft.	Net Scrap Lbs.	Reclaimed Scrap Ft.	Bundle Code	Time & Duration
4 100 11.811 \$	Employee, an	R	1181.10	3543.30	-1191.10	-3543.30	1181.100		09:41:13
6 20 11.911 ft	Tot	R al for Coll:	236.22 1417.82	708.66 4261.98	47.78 -1133.82	143.34 -3389.96	0.000 1181.100		D9:44:23
Coll Nbr. 1100	Coll Material: NO COIL MATCH		Heat Number:						
Machine: Training Room [51]			Total Good Ft	Total Good Lbs.	Net Scrap Ft.	Net Scrap Lbs.	Reclaimed Scrap Ft.		
Bundle Oty Length Date: 12/11/2014 Shift: 1	Part Number Employee: 50	Opt 01	2000415	0.000 2.00	-comp	Sump coo.	Company	Bundle Code	Time & Duration
7 100 11.811 t	Tot	R al for Coll:	1181.10 1181.10	3543.30 3543.30	-1181.10 -1181.10	-3543.30 -3643.30	1181.100 1181.100		09:51:05
Bundle ld: 38169063									
Coll Nbr. 1 Machine: Training Room [51]	Coll Material: NO C	OIL MATCH		Heat Numb	er.				
			Total Good Ft.	Total Good Lbs.	Net	Net	Reclaimed		
Bundle Oty Length Date: 12/11/2014 Shift: 1	Part Number Employee: SD	Opt 01	3000 FL	G000 L08.	Scrap Ft.	Scrap Lbs.	ociap rt.	Bundle Code	Time & Duration
8 11 11.811 1		R	129.92	389.76	28.92	86.77	0.000		10:08:06
	Tot	al for Coll:	128.92	389.76	28.92	86.77	0.000		
09/13/2015 Tin	me: 5:56:14PM								Page

Order Summary Report Looking in Past

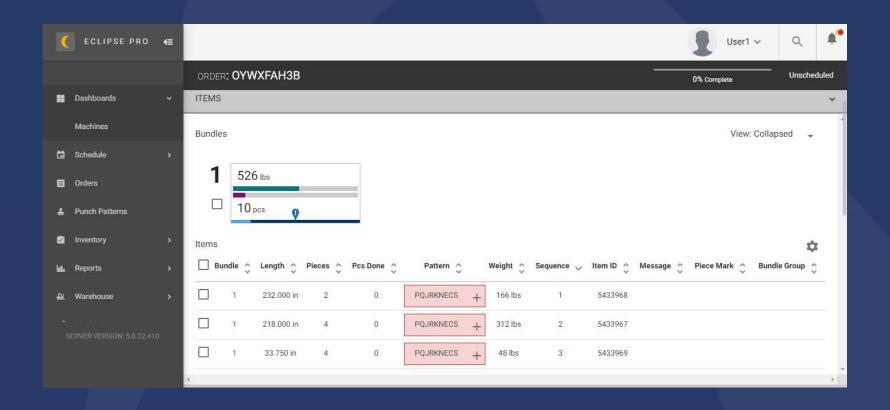




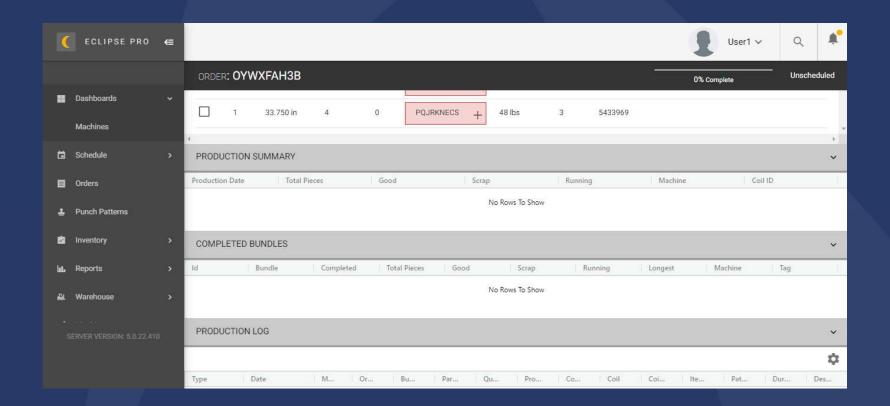






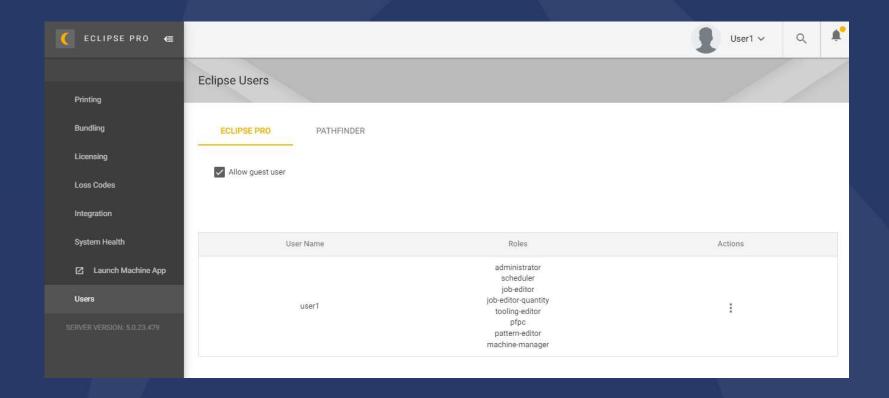








User Permissions-Eclipse Pro

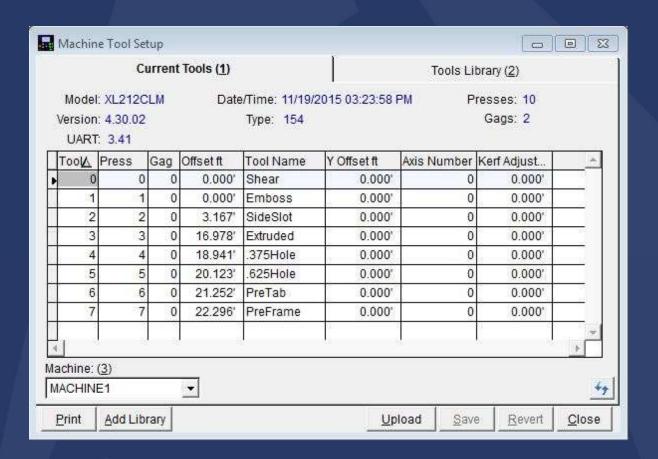




Wrong Part/Patterns

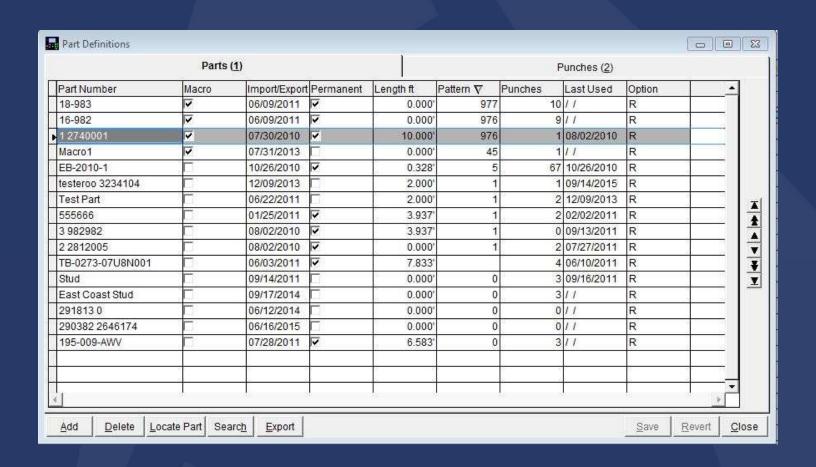
The Eclipse Solution





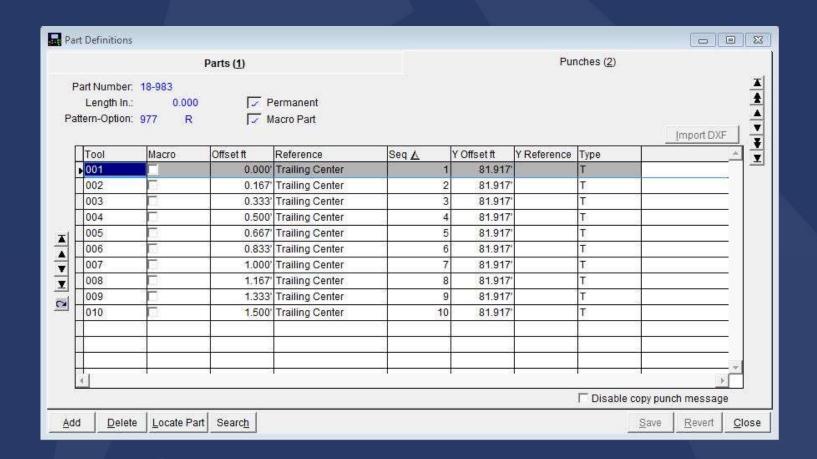
Tool Setup





Part Definitions

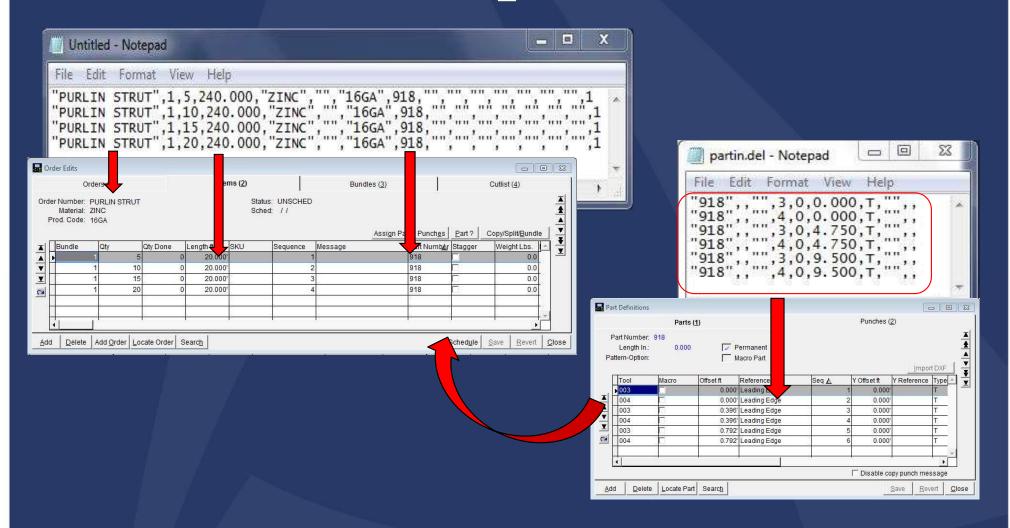




Part Definitions-Punches

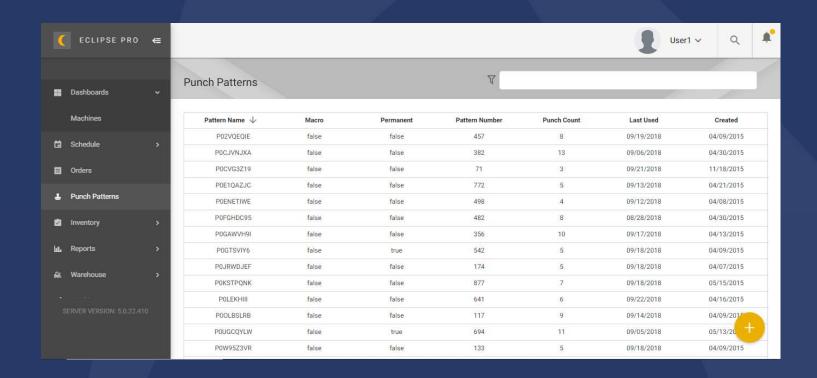


Part Data-Import

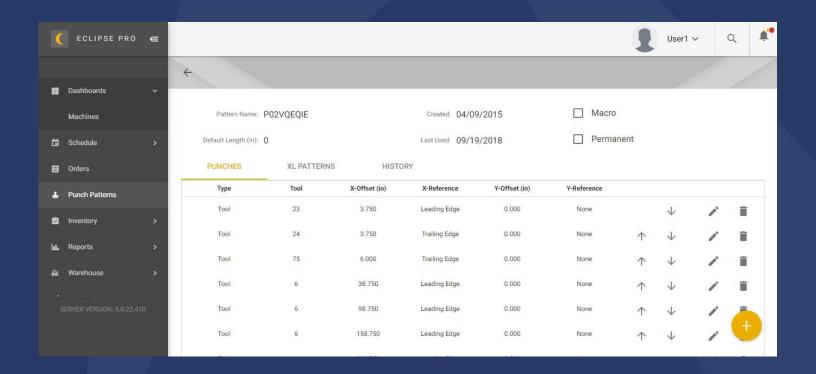


Part Data-Import

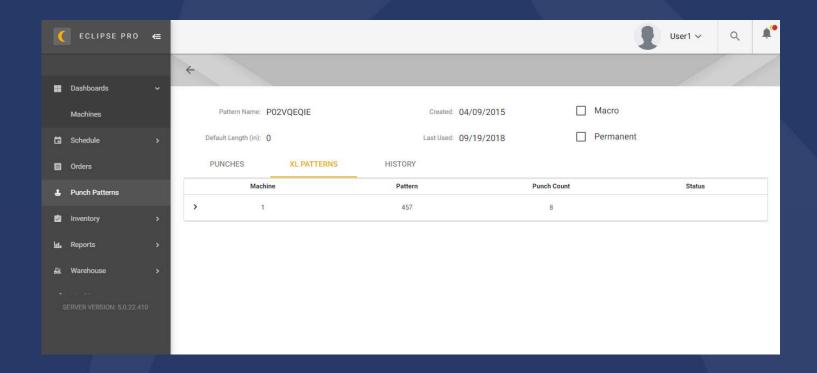




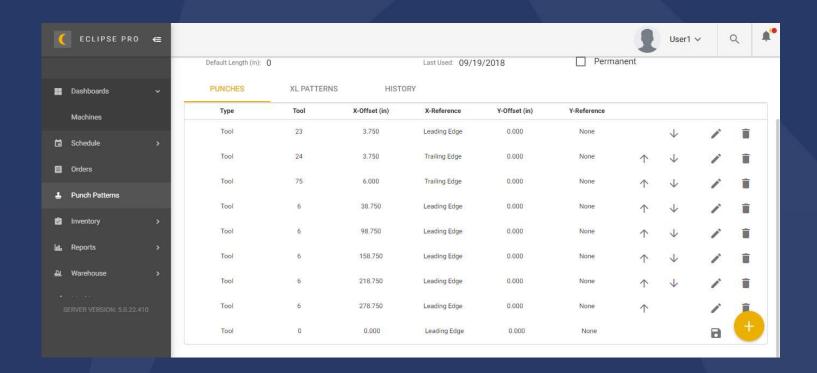














Part Data-Eclipse

- Eclipse Manages the Pattern at the Controller
- Eclipse assigns the pattern #'s automatically

Eclipse adds & deletes patterns (True/False)

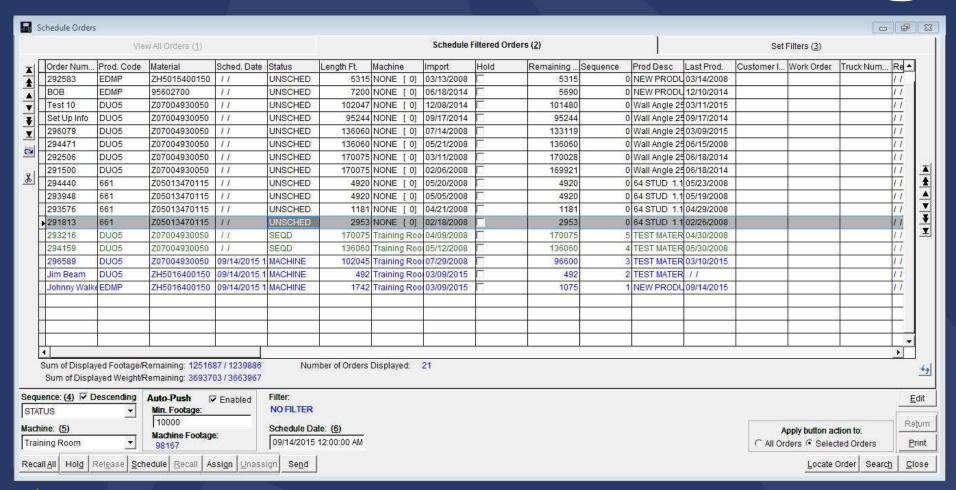
Part #'s up to 30 characters



Production Scheduling



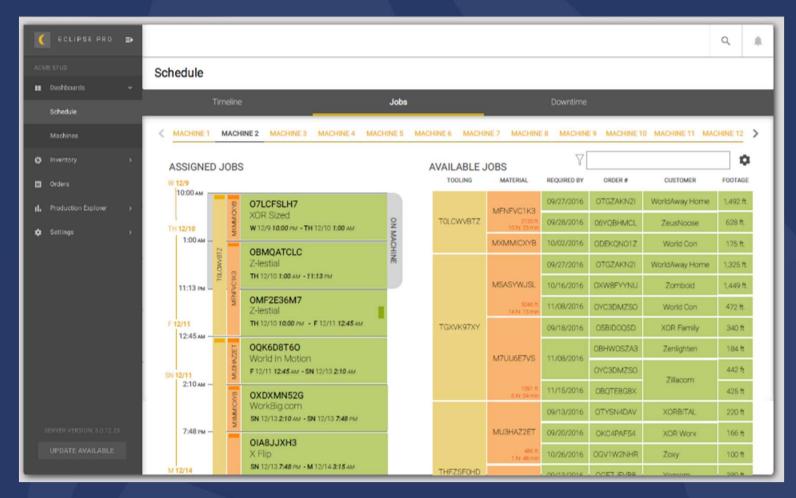
Production Scheduling



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

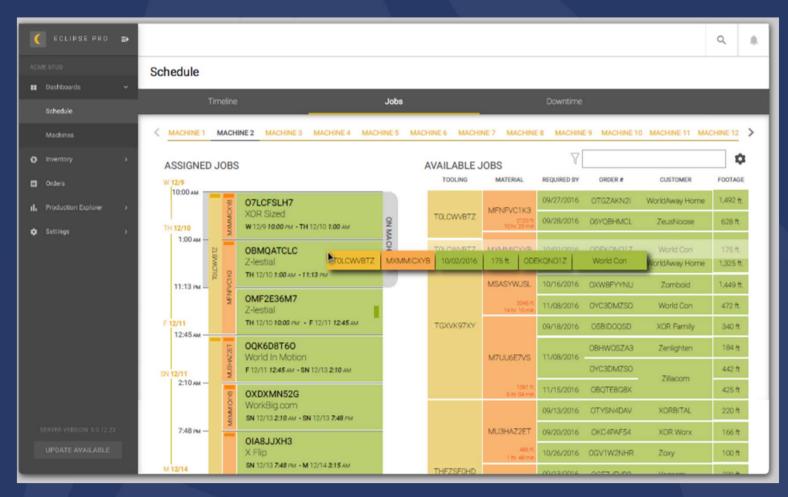


Production Scheduling



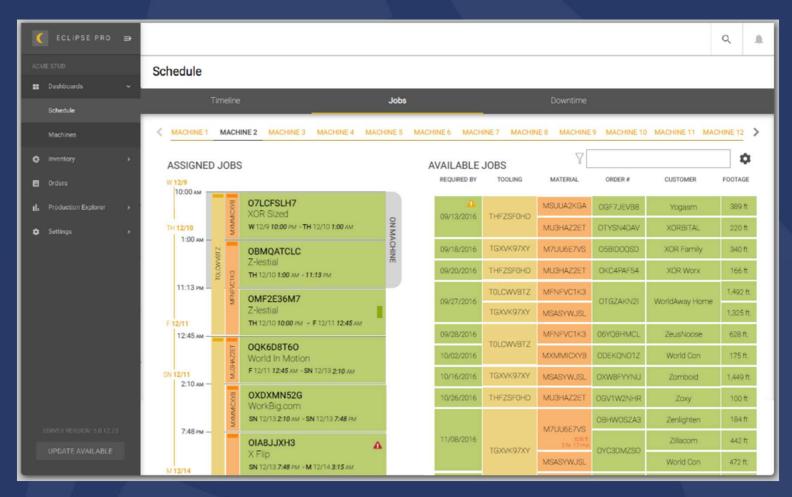


Production Scheduling



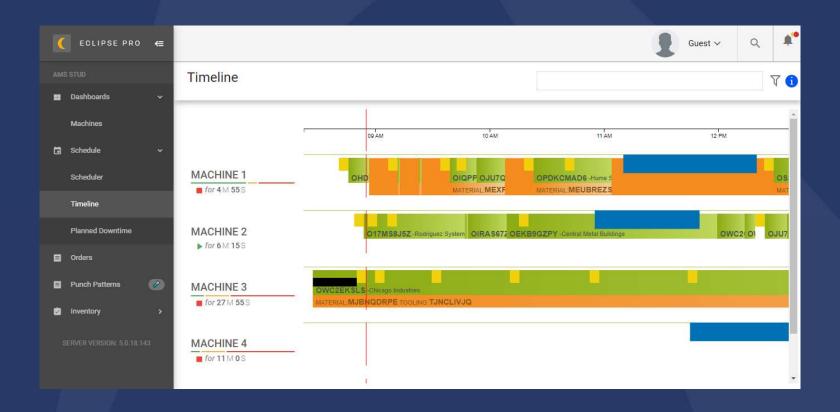


Production Scheduling



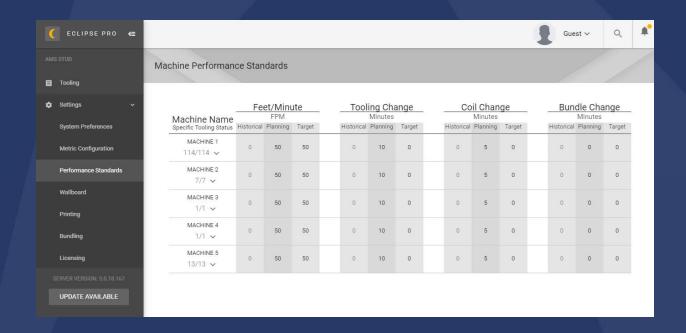


Predictive Scheduling





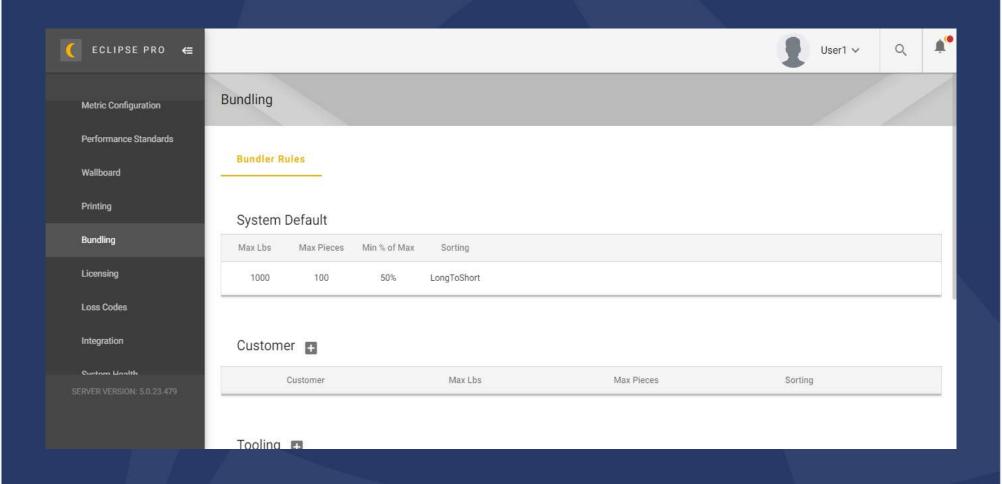
Predictive Scheduling



Eclipse Pro



Auto Bundling



Eclipse Pro



Wrong Coil & The Eclipse Solution



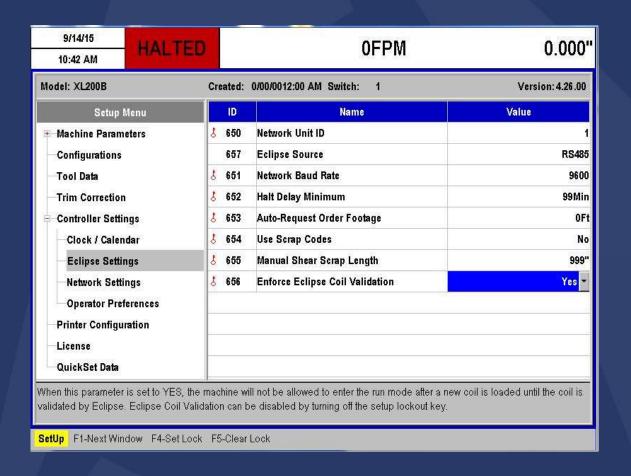
How Does Eclipse Help?

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



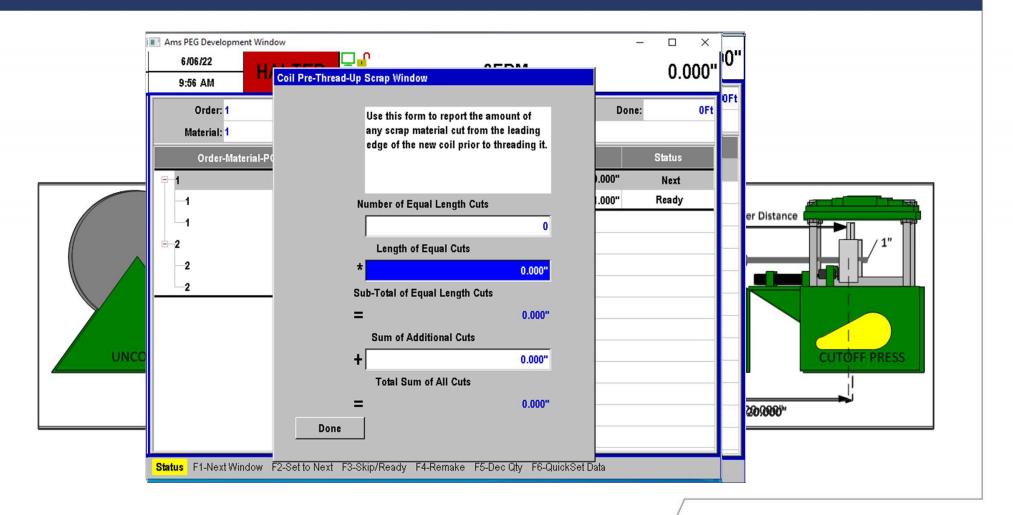
Coil-Validation



XL200 Controller Setup Screen

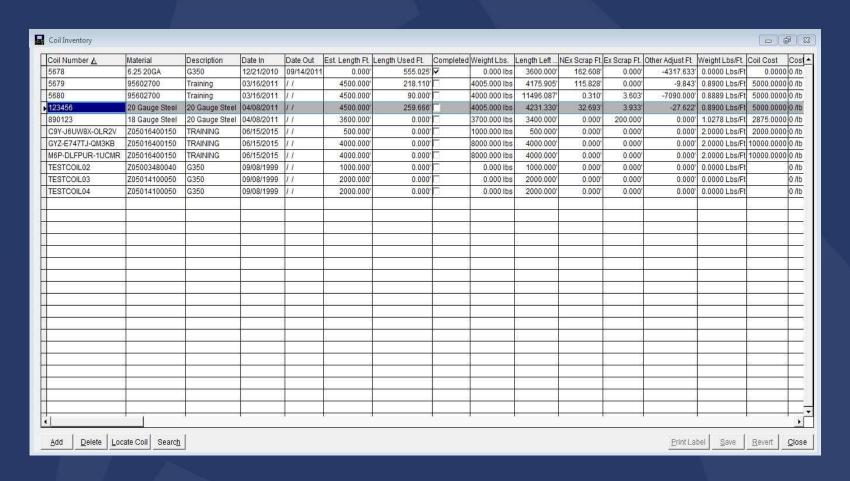


Coil-Validation





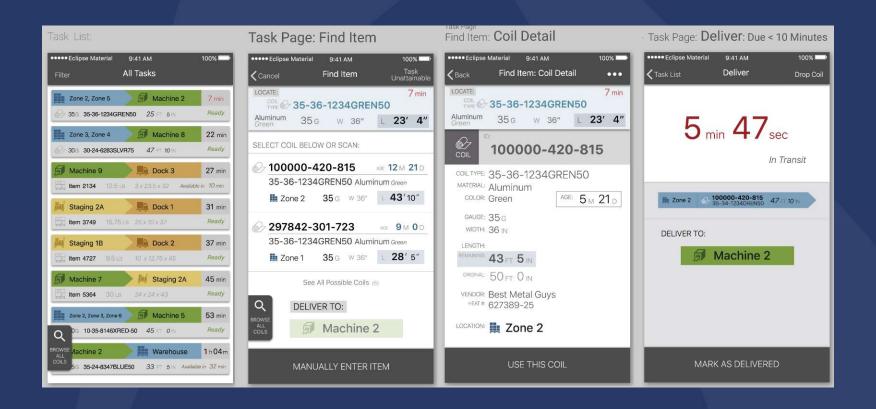
Coil-Inventory



Coil Inventory Tab



Coil-Inventory-Handling



Warehouse App

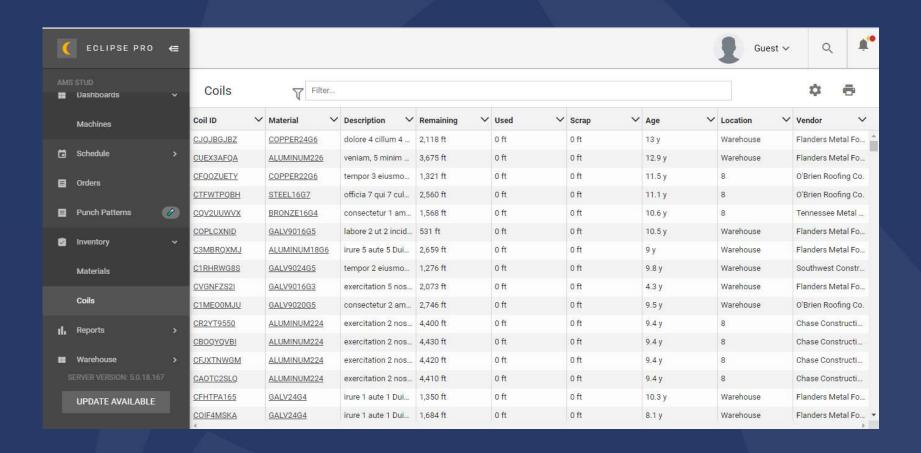


Coil Reports

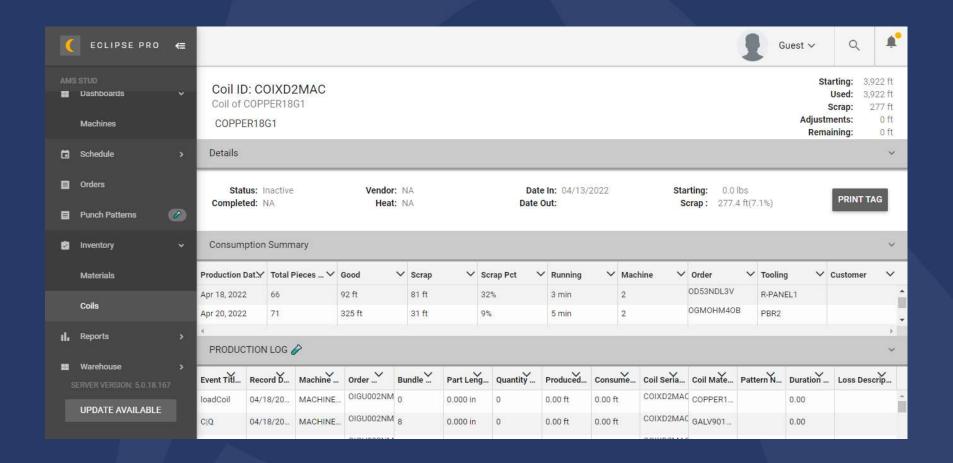
Coll Number: 12538C Coll Material: Z05015300115 M11 - Top Hal/Specia [24 0.2019/2008 0.000 2834 583 3.9 083 -2.3 563 -2.50 0.000 2				0011	Summary Report					
Coli Number: 12536C				Dates between	02/18/2008 and 02/1	9/2008				
291487 205015300115	Used on Order Ma	aterial	Machine	Customer	Date Used	Start Ft.	Good Ft.	Scrap Ft.		Net Chg Ft.
Status Complete Coll Material Z05015300115 Heat Number Z05015300115 Heat Number Z05015300115 Z05015300115 Heat Number Z05015300115 Z	Coil Number: 12538C		Coil Material:	Z05015300115	Heat Number:			Desc:		
Coll Number: 12635-C Coll Material: Z05015300115 Heat Number: Desc:	291487 Z0:	5015300115	M11 - Top H	lat/Specia [24	02/19/2008	0.000	2834.583	39.083	-23,583	-2850.083
Coll Number: 12635-C Coll Material: Z05015300115 Heat Number: Desc:	Status: Complete				Coil Total:	0.000	2834.583	39.083	-23.583	-2850.083
Status: Complete Coli Material: Z07002900025	odinploto					0.000	5989.47	82.58	-49.83	-6022.23
Status Complete	Coil Number: 12635-C		Coil Material:	Z05015300115	Heat Number:			Desc:		
No	291 48 7 Z0	5015300115	M11 - Top H	lat/Specia [24	02/19/2008	0.000	2787.167	33.917	-23.583	-2797.500
Coil Number: 12894-C	Status: Complete				Coil Total:	0.000	2787.167	33.917	-23.583	-2797.500
291237						0.000	5889.28	71.67	-49.83	-5911.12
291486	Coil Number: 12894-C		Coil Material:	Z05015300115	Heat Number:			Desc:		
291487 Z05016330115	291237 Z0:	5015300115	M11 - Top H	lat/Specia [24	02/19/2008	0.000	5267.250	170.417	-141.583	-5296.083
Status: Complete	291486 Z0:	5015300115	M11 - Top H	lat/Specia [24	02/19/2008	0.000	0.000	1.333	0.000	-1.333
Coil Number: 219913	291487 Z0:	5015300115	M11 - Top H	lat/Specia [24	02/19/2008	0.000	9518.500	160.833	-94.417	-9584.917
Coil Number: 219913	Status: Complete				Coil Total:	0.000	14785.750	332.583	-236.000	-14882.333
299970 Z07002900025 M57 - Cross Tee [28] 02/19/2008 0.000 970.333 -0.083 0.000 -970.2					Weight:	0.000	31242.29	702.75	-498.67	-31446.37
291408 Z07002900023 M57 - Cross Tee [28] 02/18/2008 0.000 25786.000 762.417 0.000 -2588.44 Status: In Use Coil Total: 0.000 26756.333 762.333 0.000 -27518.65 Coil Number: 310009C	Coil Number: 219913		Coil Material:	Z07002900025	Heat Number:			Desc:		
Status: In Use Coil Total: Coil Total: D.000 26756.333 762.333 0.000 -27518.64	290970 Z0	7002900025	M57 - Cross	s Tee [28]	02/19/2008	0.000	970.333	-0.083	0.000	-970.250
Coll Number: 310009C	291408 Z0	7002900023	M57 - Cross	s Tee [28]	02/18/2008	0.000	25786.000	762.417	0.000	-26548,417
291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 24.006 0.000 -24.006 Status: Complete Coil Total: 0.000 0.000 0.000 24.006 0.000 -24.006 Weight: 0.000 0.000 0.000 54.30 0.000 -24.006 Coil Number: 3101010C Coil Material: Z05016330115 Heat Number: Desc: 291690 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1745,075 16.799 0.000 -1761.8 291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1582,674 -0.009 447.244 -1535.4 291692 Z0502130115 Y-axis Punching Line [2] 02/18/2008 0.000 1582,674 -0.009 47.244 -1535.4 291692 Complete Coil Total: 0.000 3327,749 36.025 -47.244 -3318.5	Status: In Use				Coil Total:	0.000	26756.333	762.333	0.000	-27518.667
291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 24.006 0.000 -24.006 Status: Complete Coil Total: 0.000 0.000 0.000 24.006 0.000 -24.006 Weight: 0.000 0.000 0.000 54.30 0.000 -24.006 Coil Number: 3101010C Coil Material: Z05016330115 Heat Number: Desc: 291690 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1745,075 16.799 0.000 -1761.8 291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1582,674 -0.009 447.244 -1535.4 291692 Z0502130115 Y-axis Punching Line [2] 02/18/2008 0.000 1582,674 -0.009 47.244 -1535.4 291692 Complete Coil Total: 0.000 3327,749 36.025 -47.244 -3318.5	Coil Number: 310009C		Coil Material:	Z05016330115	Heat Number:			Desc:		
Coil Number: 3101010C Coil Material: Z05016330115 Heat Number: Desc: 291690 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1745.075 16.799 0.000 -1761.8 291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1582.674 -0.009 -47.244 -1535.4 291692 Z05022130115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 19.235 0.000 -19.2 Status: Complete Coll Total: 0.000 3327.749 36.025 -47.244 -3318.5		5016330115	Y-axis Pund	ching Line [2]	02/18/2008	0.000	0.000	24.006	0.000	-24.006
Coil Number: 3101010C Coil Material: Z05016330115 Heat Number: Desc: 291690 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1745.075 16.799 0.000 -1761.8 291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1582.674 -0.009 -47.244 -1535.4 291692 Z05022130115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 19.235 0.000 -19.2 Status: Complete Coll Total: 0.000 3327.749 36.025 -47.244 -3316.5	Status: Complete				Coil Total:	0.000	0.000	24.006	0.000	-24.006
291690 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1745.075 16.799 0.000 -1761.8 291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1582.674 -0.009 -47.244 -1535.4 291692 Z05022130115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 19.235 0.000 -19.2 Status: Complete Coll Total: 0.000 3327.749 36.025 -47.244 -3316.5						0.000	0.00	54.30	0.00	-54.30
291691 Z05016330115 Y-axis Punching Line [2] 02/18/2008 0.000 1582.674 -0.009 -47.244 -1535.4 291692 Z05022130115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 19.235 0.000 -19.2 Status: Complete Coll Total: 0.000 3327.749 36.025 -47.244 -3318.5	Coil Number: 3101010C		Coil Material:	Z05016330115	Heat Number:			Desc:		
291892 Z05022130115 Y-axis Punching Line [2] 02/18/2008 0.000 0.000 19.235 0.000 -19.2 Status: Complete Coll Total: 0.000 3327.749 36.025 -47.244 -3318.5	291690 Z0:	5016330115	Y-axis Pund	ching Line [2]	02/18/2008	0.000	1745.075	16.799	0.000	-1761.875
Status: Complete Coll Total: 0.000 3327.749 36.025 -47.244 -3316.5	291691 Z0:	5016330115	Y-axis Pund	ching Line [2]	02/18/2008	0.000	1582.674	-0.009	-47.244	-1535.421
Status. Complete Curriotal.	291692 Z0	5022130115	Y-axis Pund	ching Line [2]	02/18/2008	0.000	0.000	19.235	0.000	-19.235
Weight: 0.000 7527.37 96.95 -106.87 -7517.	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

Coil Summary Report

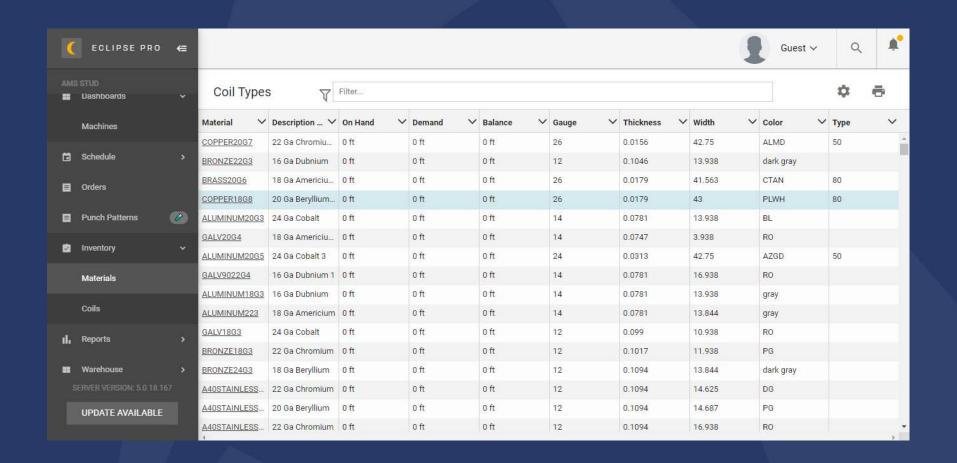




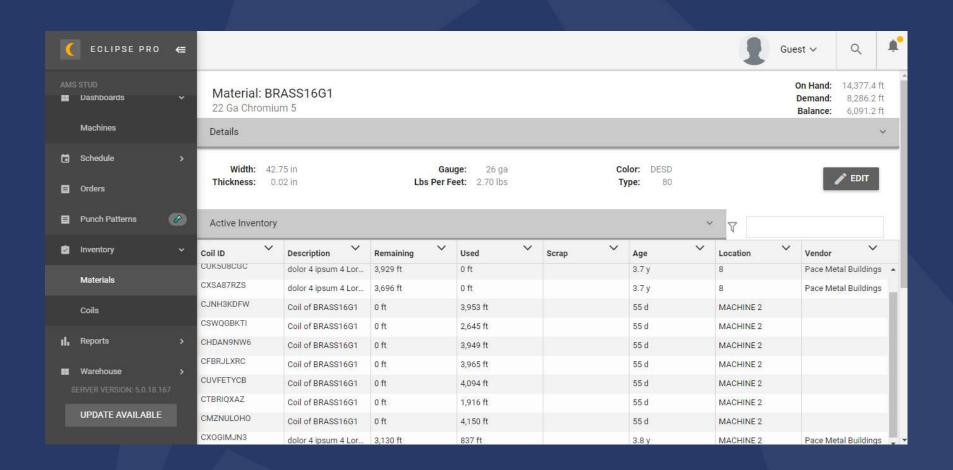










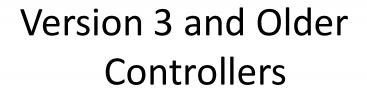


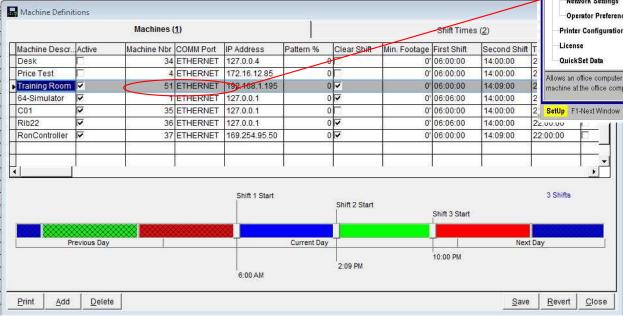


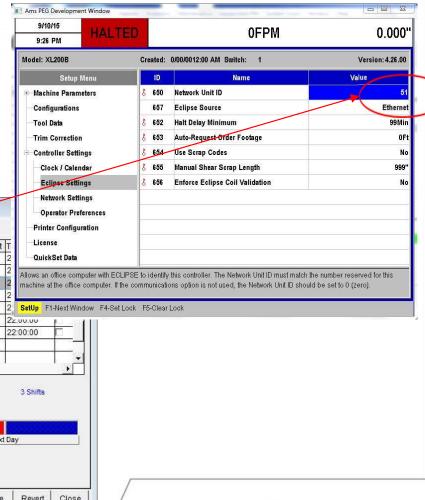
Wrong Machine & The Eclipse Solution



Machine Setup

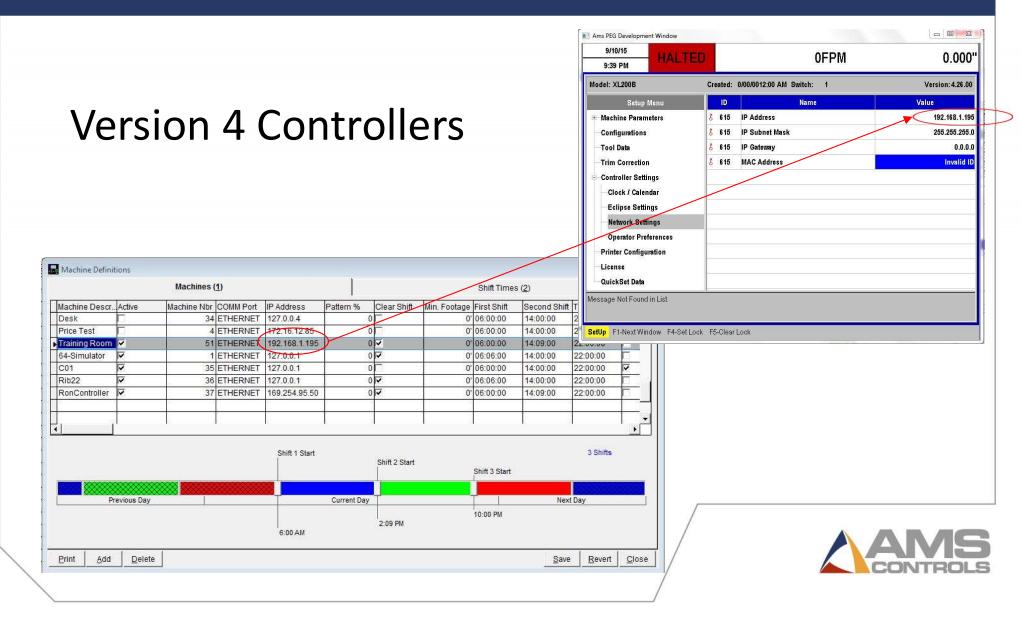








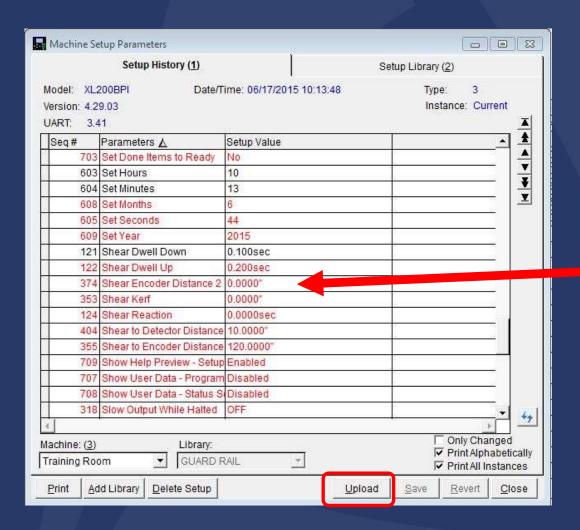
Machine Setup



Machine Setup

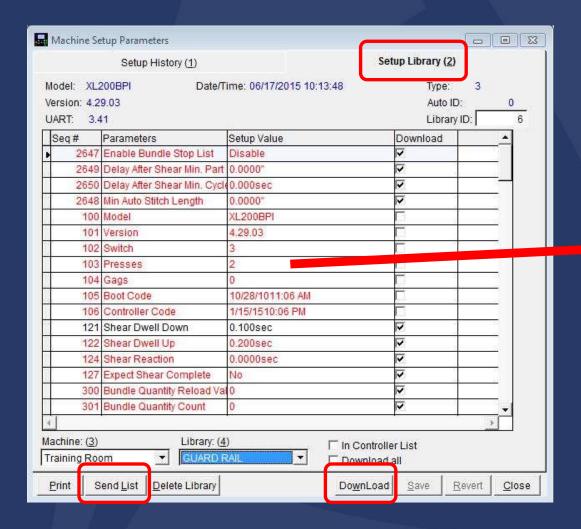
	Produc	ct Codes (<u>1</u>)	Length Related Data (2)						
Prod. Code	Machine IDA	Description	Finished Width In.	Machine	Staging Bay	Load Dock	Leg Height	Profil 4	
A26B	37	NEW PRODUCT CODE FRO	0.000'	RonControlle			0.000'	30 - 30	
Test	50		0.000'	SAF-Holland		() (f	0.000'		
edmp	50	stud	0.000	SAF-Holland			0.000		
DU05	51	9 Gauge Galvanized	0.000°	Training Roo			0.000		
EDMP	51	6 Gauge Painted	0.000	Training Roo			0.000*	9. 05	
661	51	4 STUD 1.15BMT	0.210'	Training Roo			0.000		
08C0	52	NEW PRODUCT CODE FRO	0.000	XL200CL Tes		88 88	0.000	88 (3) 88 (8)	
08R0	63	NEW PRODUCT CODE FRO	0.000'	Pella-Test			0.000		
Pella Test	63		0.000'	Pella-Test		3.	0.000	3	
08E1	99	NEW PRODUCT CODE FRO	0.000'			60	0.000'		
08Z0	99	NEW PRODUCT CODE FRO	0.000				0.000		
10C0	99	NEW PRODUCT CODE FRO	0.000				0.000		
10E1	99	NEW PRODUCT CODE FRO	0.000			5	0.000	0 10E	
10Z0	99	NEW PRODUCT CODE FRO	0.000				0.000*		
	10 5		ž:	S		E:		•	









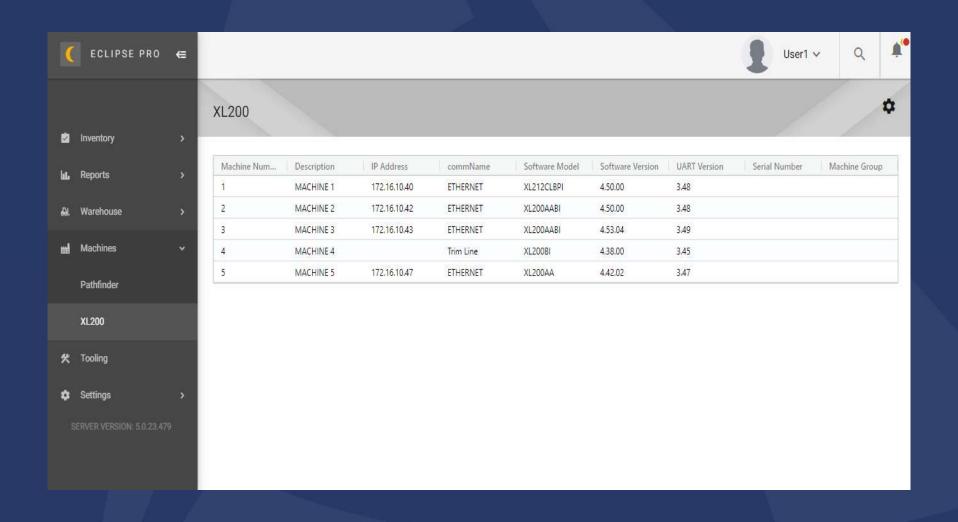




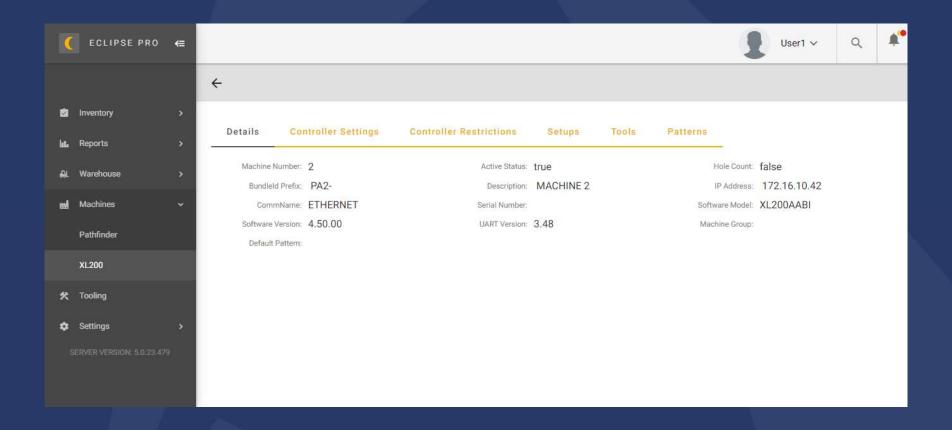


Model: XL /ersion: 4.2	29.03	ime: 06/17/2015 10:13:48	Setup Li	Type: Auto ID:	3 0
JART: 3. Seq#	41 Parameters	Setup Value	Dow	Library II) b
A SECURIOR SECTION	7 Enable Bundle Stop List	Disable	₩	nodu	
	Delay After Shear Min. Part	0.0000"	V		
2650	Delay After Shear Min. Cycl	0.000sec	V		
2648	Min Auto Stitch Length	0.0000"	✓		- T-
100	Model	XL200BPI			
101	Version	4.29.03			
102	Switch	3		20	(F)
103	Presses	2			
104	4 Gags	0			
108	Boot Code	10/28/1011:06 AM			
106	Controller Code	1/15/1510:06 PM			
121	Shear Dwell Down	0.100sec	V		
124	Snear Dwell Op	0.200sec	7		
124	Shear Reaction	0.0000sec	V		
	Expect Shear Complete	No	▽	50	88
300	Bundle Quantity Reload Va		~		
301	Bundle Quantity Count	0	V		
(<u>)</u> lachine: (<u>3</u>) raining Ro		1 ""	ontroller List		100

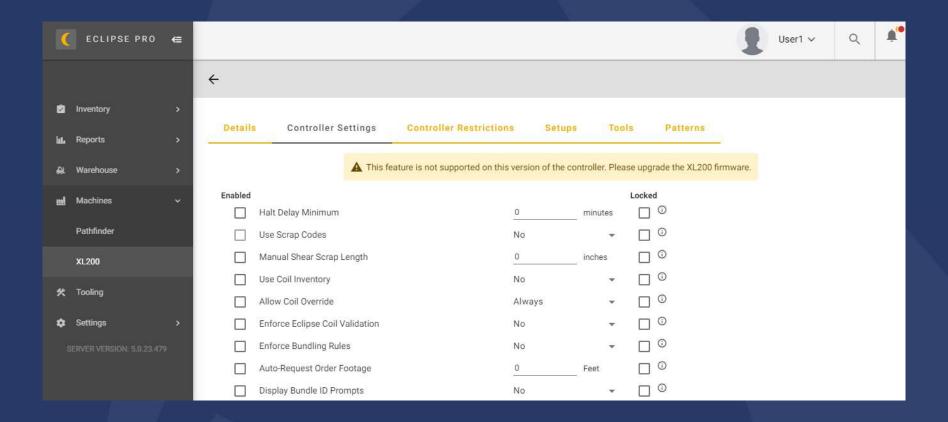




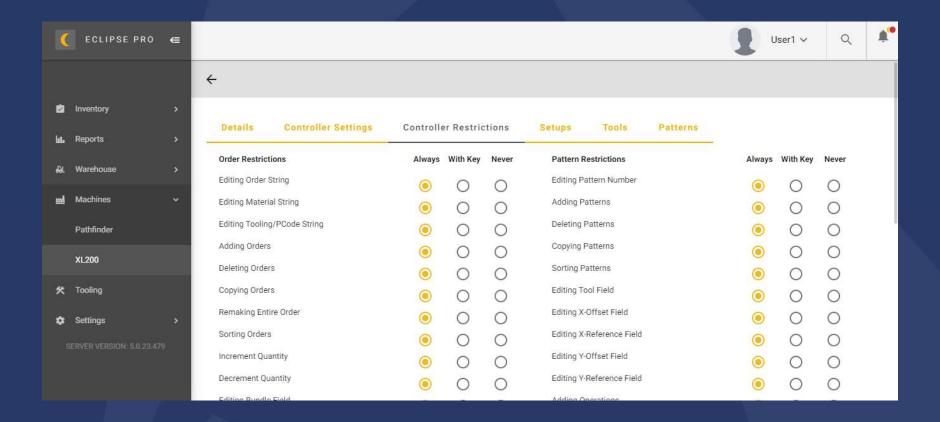




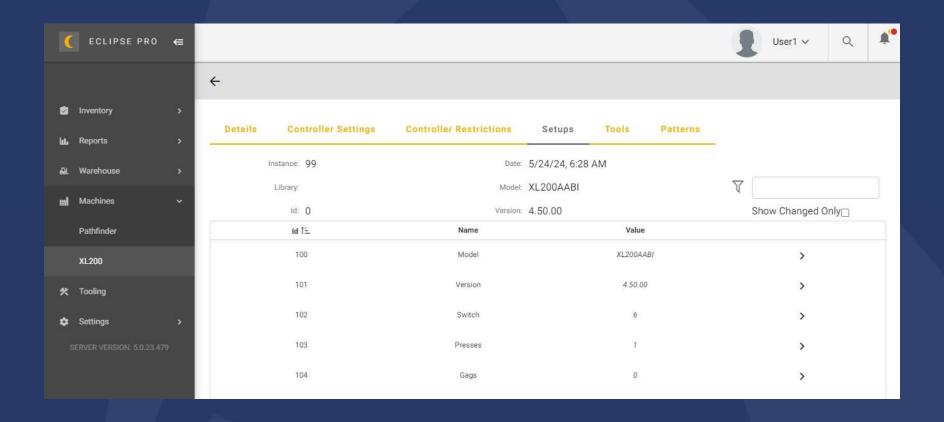




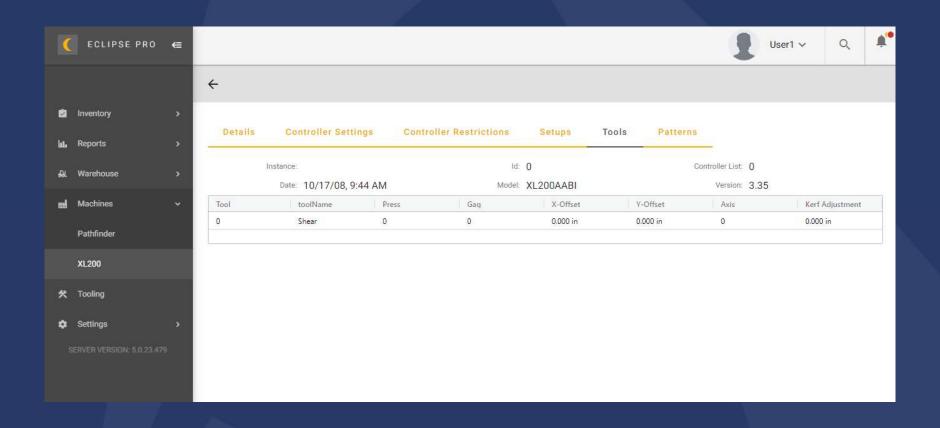




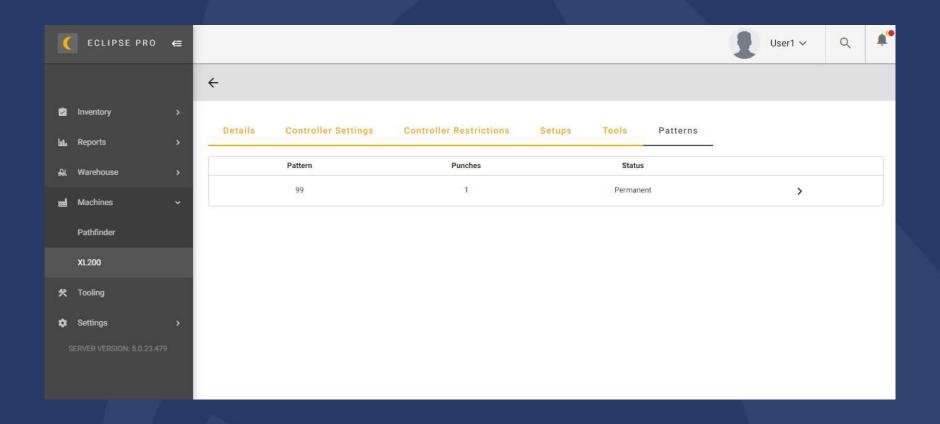














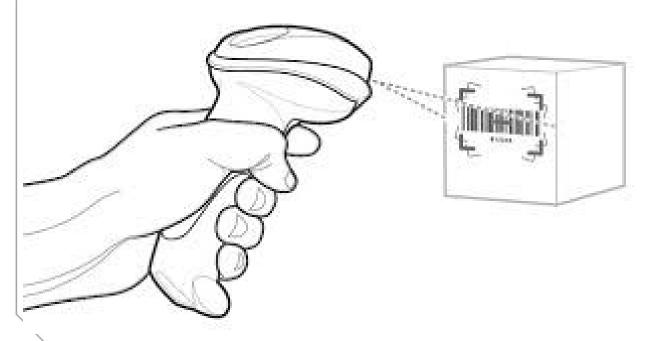
Wrong Production Data & The Eclipse Solution



Data Collection

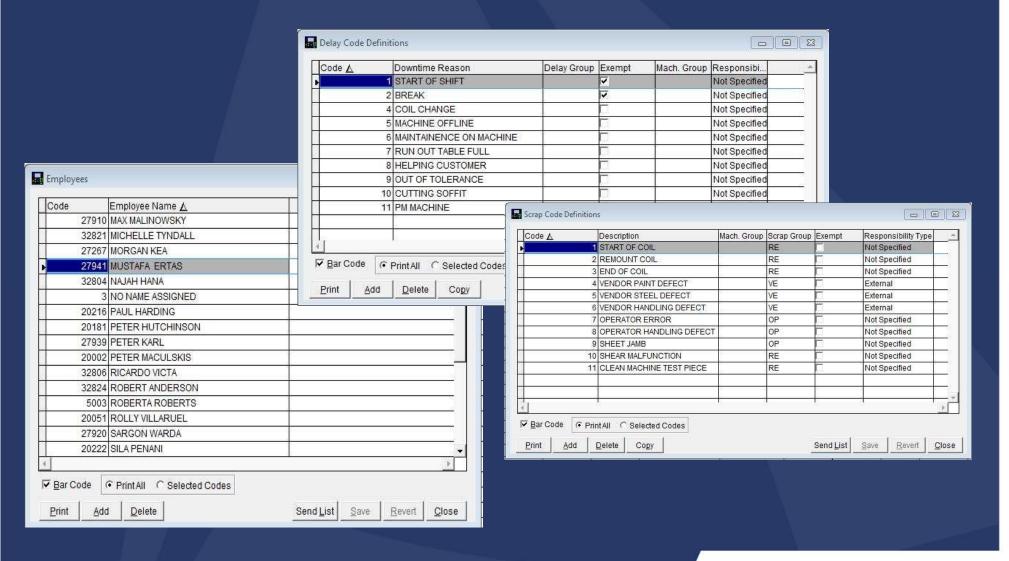
Barcode Scan

- 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





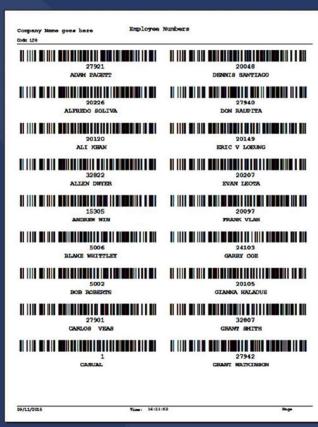
Data Collection-Codes





Data Collection-Codes







Productivity & Profit Tools



PRODUCTIVITY & PROFIT TOOLS

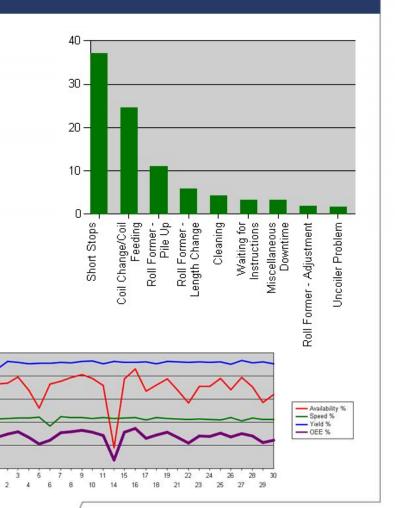
- Real-Time Metrics
- Productivity Tracking
- Scrap Tracking
- Downtime Tracking



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

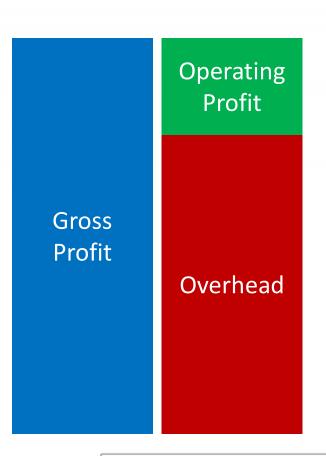
GOAL: PROFIT NOW AND IN THE FUTURE

SIMPLE MODEL:

GROSS PROFIT

- OVERHEAD

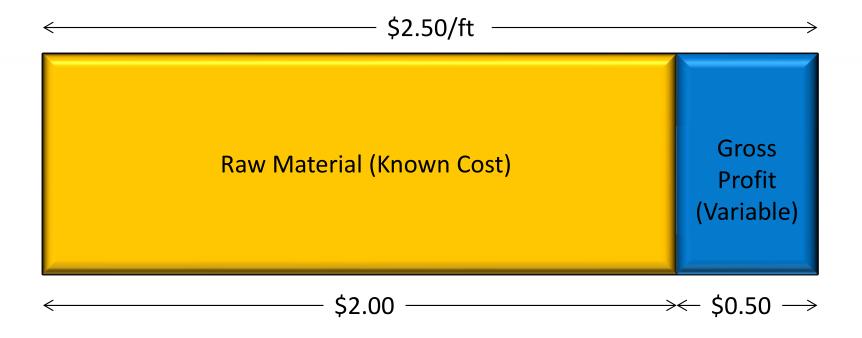
OPERATING PROFIT





GROSS PROFIT

Gross Profit = Selling Price – Material Cost





MACHINE SPEED VS. THROUGHPUT

Road trip: Chicago to St. Louis = 300 miles





Machine Speed vs. Throughput

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



MACHINE SPEED VS. THROUGHPUT

Back to Roll Forming...





MACHINE SPEED VS. THROUGHPUT





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



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



2 Tooling changes/shift 35 minutes/change 310 minutes downtime Throughput = 35 fpm



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



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

Overhead

Operating

Profit

\$1.1M

Overhead \$800K



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



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

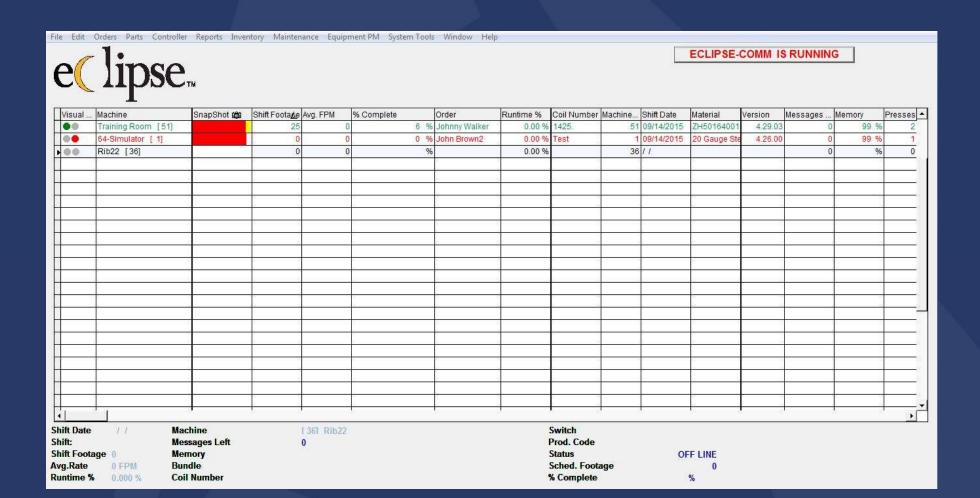
Overhead \$800K

Operating profit = \$114K**

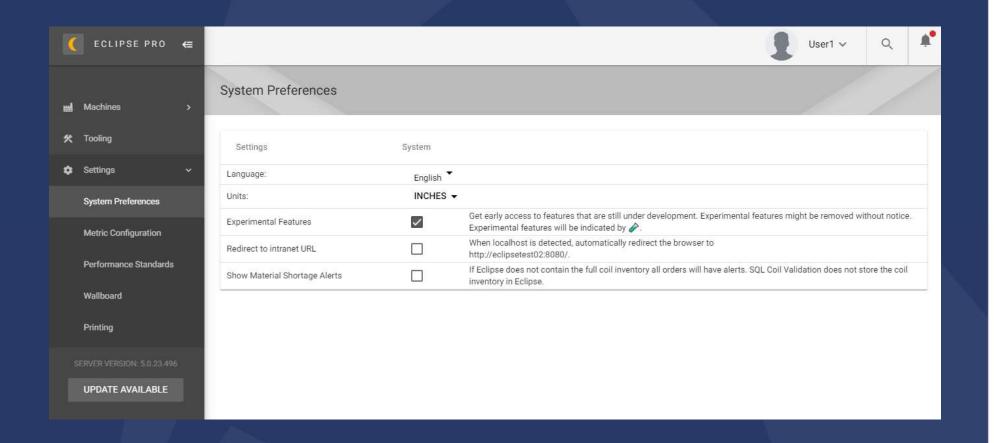
* Assuming you don't ship any bad product to a customer!

AMS

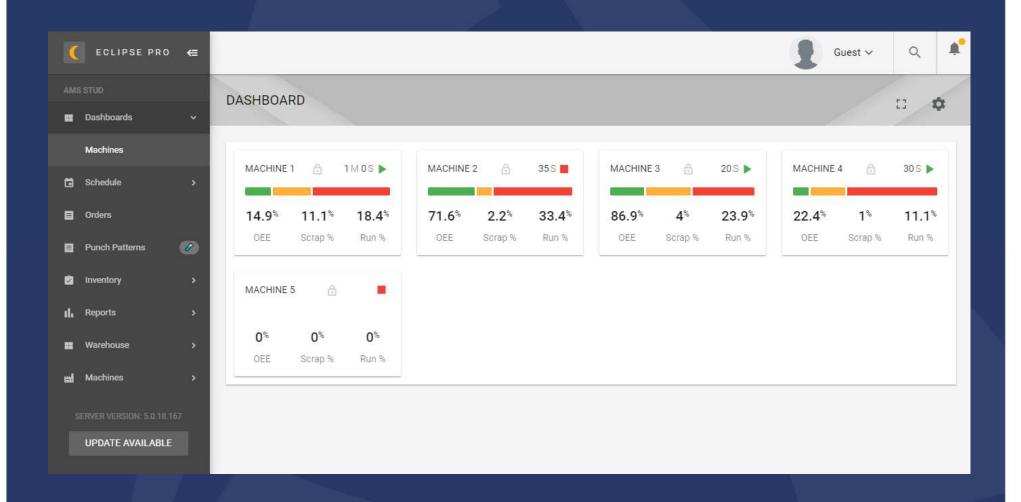












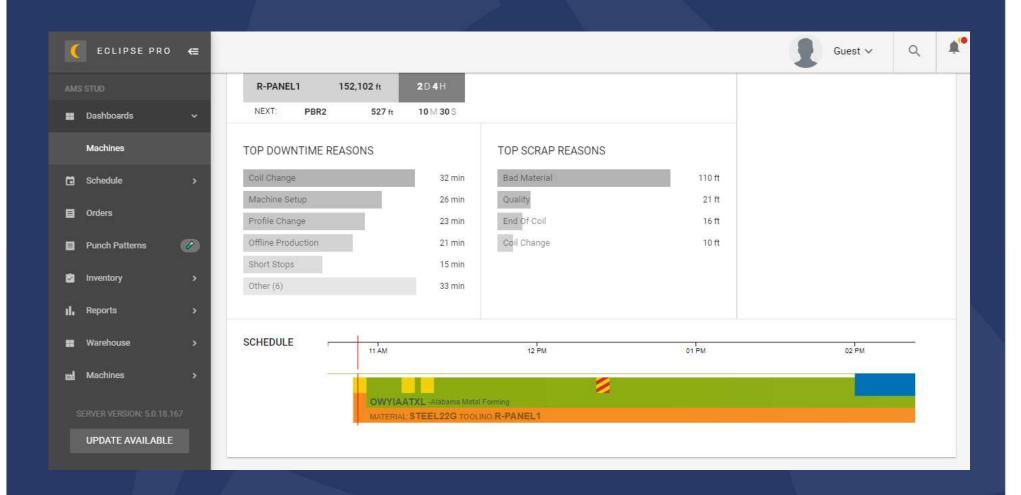




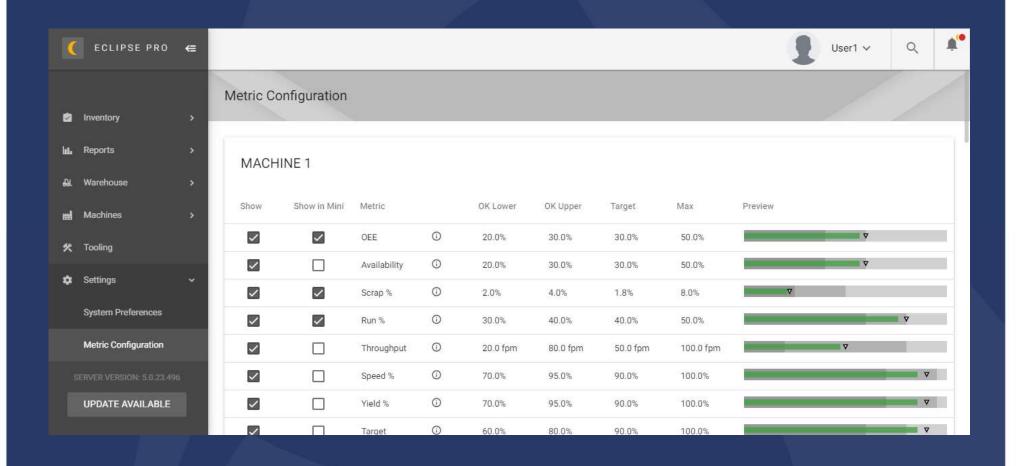






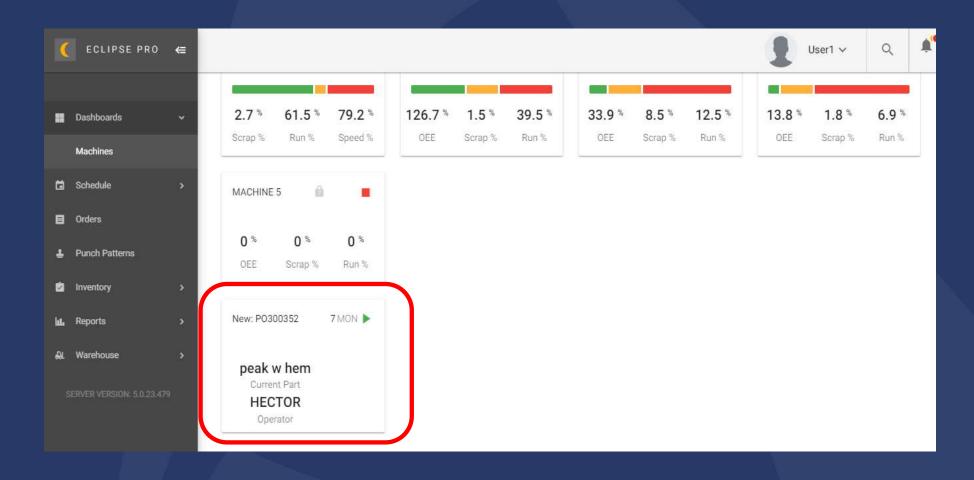








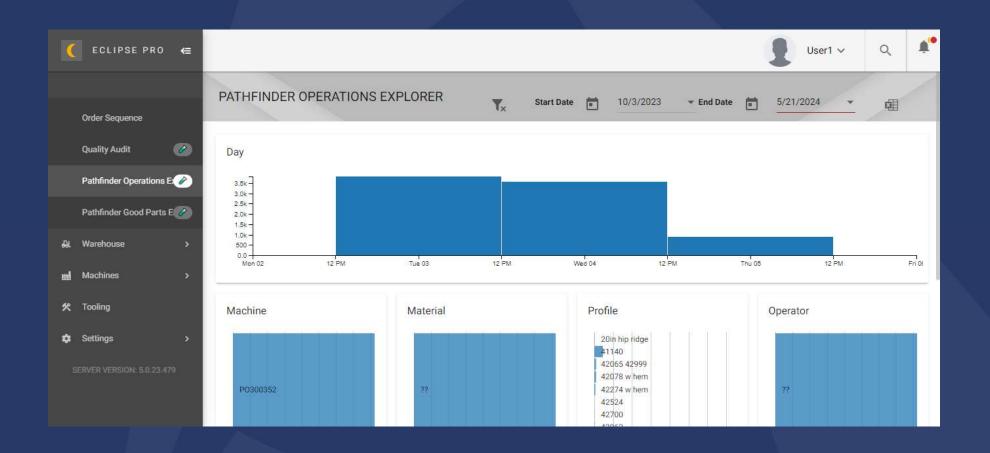
Real-Time Folder Metrics



Eclipse Pro -Pathfinder



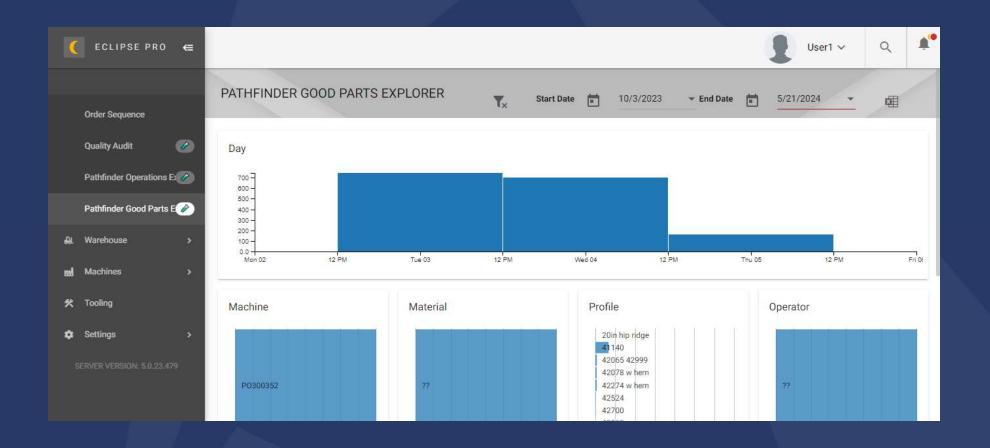
Real-Time Folder Metrics



Eclipse Pro -Pathfinder



Real-Time Folder Metrics



Eclipse Pro -Pathfinder

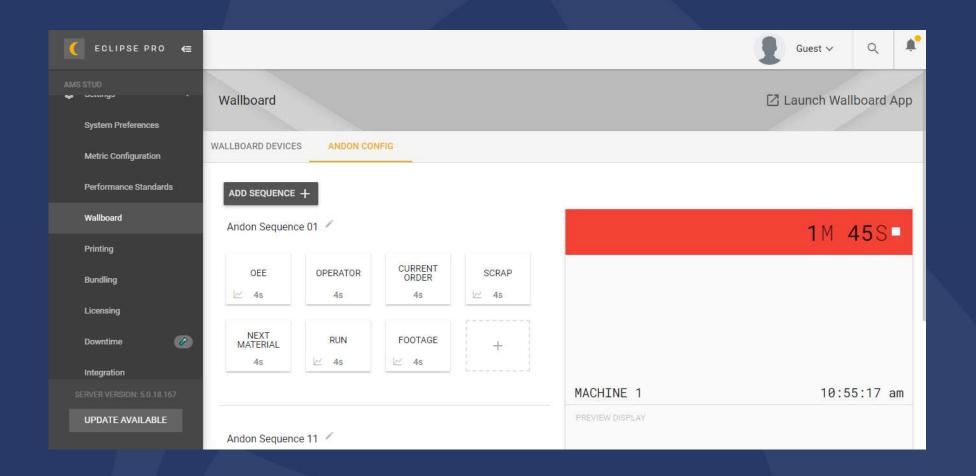


Andon Display

- 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 By Employee

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

007 TONY MO .00 9.84 76,787.25	.00	0.00								Machines				
9.84 76,787.25	.00	0.00												
76,787.25			.00	.00	0	0	0	0	0		0:00.00	0:00.00	0.00	0.0
		0.00	9.84	.00	1	0	0	0		031	0:00.45	0:00.05	11.11	196.9
	234.82	0.30	77,022.07	.00	9006	11	0	0	0		8:45.78	5:17.34	60.36	242.0
•	91.67	0.42	•	.00	2351	ь	O	O	O	019	5:52.30	3:25.79	28.41	105.7
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
		0.00			0		0	0	_				0.00	0.0
							_		_					129.1
														160.4
						_		_						0.0
2,732.28	13	0.00	2,732.15	00	347		0			013	0:23.25	0:17.47	75.14	156.4
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
216 PAUL HA	RDING													
.00	.00	0.00	.00	.00	0	0	o	o	0		0:00.00	0:00.00	0.00	0.0
38,618.42		0.65		330.17	1651	11	О	0	0	024	13:02.22	5:41.44	43.65	113.1
					_				_					
										024		0:00.00	0.00	0.0
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	0	0		13:31.15	5:41.44	42.09	113.1
· ·					4796		o	o				5:58.62	57.10	266.3
00	00	0.00		.00						004	2:07.88	0:00.00	0.00	0.0
95,502.43	754.02	0.78	96,256.46	.00	4796	11	0	0	0		12:35.98	5:58.62	47.44	266.3
222 SILA PEN	IANI													
.00		0.00	.00		0	0	0	0			0:00.00	0:00.00	0.00	0.0
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
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
Total Good 362,852.68 81,600.71	Net Scrap 2,720.32 536.00	% Scrap 0.74	Total 365,903.16 82,834.35	Reclaimed Scrap 330.17 697.64	Total Cuts 31211	Coil Chgs 55	Mati Chgs 2	Mati De∨ 0	•		Shift HH: MM 66:55.75	Run HH:MM 36:05.21	Run % 53.92	Run 167.6
	20.826.73 37.192.84 .00 2.732.28 50,751.85 216 PAUL HA .00 38.618.42 81,600.71 .00 38,618.42 81,600.71 220 VINEN CI 95,502.43 .00 95,502.43 222 SILA PEN .00 69,432.93 69,432.93 Total Good 362,852.68	98,547.05 326.49 181 PETER HUTCHINSON .00 .00 20,826.73 295.78 37.192.84 485.29 .00 47.65 2,732.2813 60,751.85 828.59 216 PAUL HARDING .00 .00 38,618.42 253.67 81,600.71 536.00 .00 .00 38,618.42 253.67 81,600.71 536.00 .00 .00 38,618.42 253.67 81,600.71 536.00 .00 .00 38,618.42 253.67 81,600.71 536.00 220 VINEN CHANDRA 95,502.43 754.02 .00 .00 95,502.43 754.02 222 SILA PENANI .00 .00 69,432.93 557.55 69,432.93 557.55 59,432.93 557.55 Total Net Good Scrap 362,852.68 2,720.32	98,547.05 326.49 0.33 181 PETER HUTCHINSON	98,547.05 326.49 0.33 98,873.54 181 PETER HUTCHINSON	98,547.05 326.49 0.33 98,873.54 .00	PETER HUTCHINSON	98,547.05 326.49 0.33 98,873.54 .00 11358 17	Second S	98,547.05 326.49 0.33 98,873.54 .00 11358 17 0 0 181 PETER HUTCHINSON	98,547.05 326.49 0.33 98,873.54 0.00 11358 17 0 0 0 0 181 PETER HUTCHINSON	98,547.05 326.49 0.33 98,873.54 .00 11358 17 0 0 0 0 181 PETER HUTCHINSON .00 .00 0.00 .00 .00 .00 0 0 0 0 0 0 0	14:38:53 18:54 17:55 18:55 1	Section Sect	

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



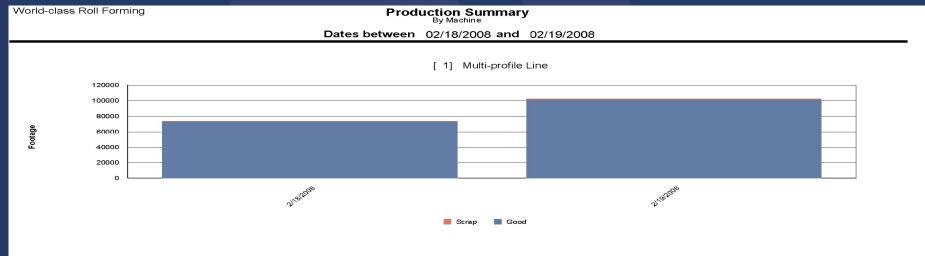
World-class Roll Forming

Production Summary

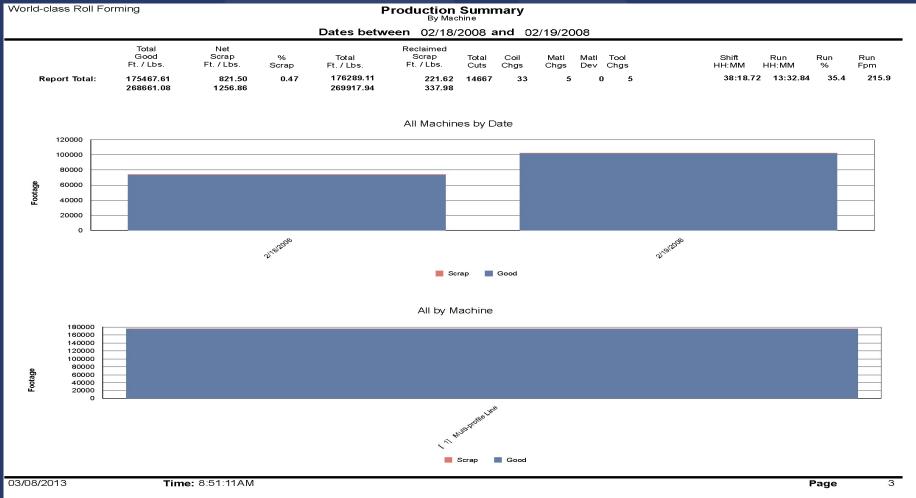
Dates between 02/18/2008 and 02/19/2008

Machine:	[1] Mu	ılti-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 Chgs	Operators	Shift HH:MM	Run HH:MM	Run %	Run Fpm
02/18/2008 1	1	31226.32	158.52	0.51	31384.83	0.00	3016	5	2	a		20207 20226	6.18.63	2:21.88	37.5	220.1
		45590.42	231.90		45822.32	.00										
02/18/2008 2	2	37578.67	146.67	0.39	37725.33	88.58	3834	6	0	0	0	1 20207 202 2 6	8:32.36	3:17.71	38.6	190.1
		54864.85	214.13		55078 98	129.33										
02/18/2008 3	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										
Date 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	211.1
		28920.49	345.57		29266 06	.00										
02/19/2008	2	54976. 6 5	120.55	0.22	55097.20	103.51	4017	12	0	0	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	0	5		38:18.72	13:32.84	35.4	215.9

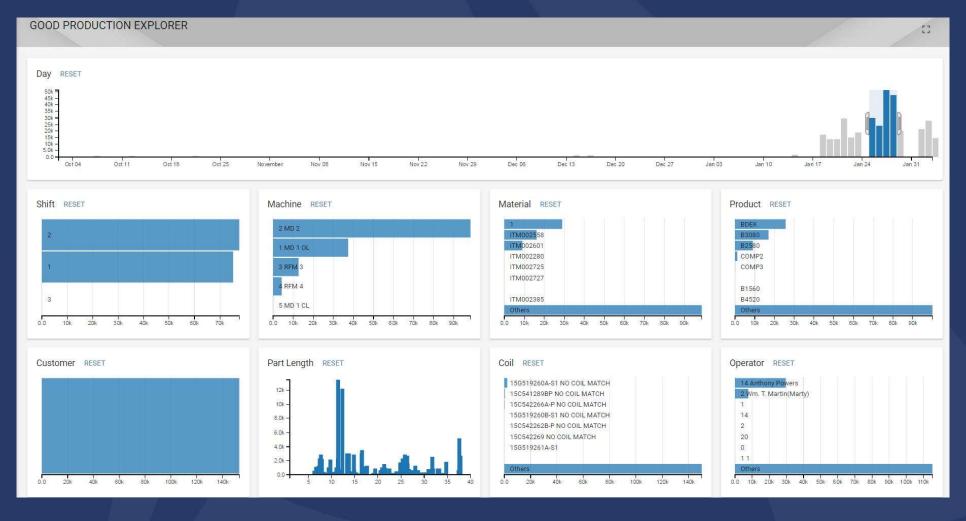












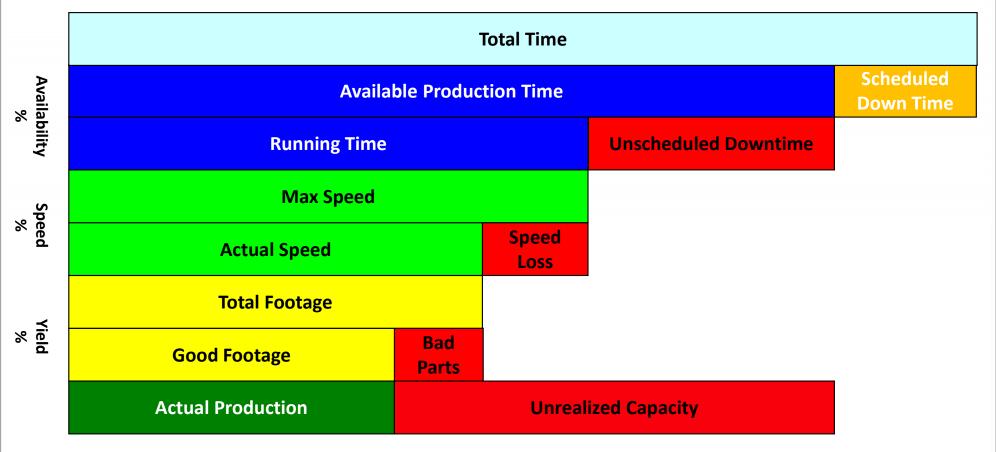




Eclipse Pro - Production Summary Report



OEE - Overall Equipment Effectiveness

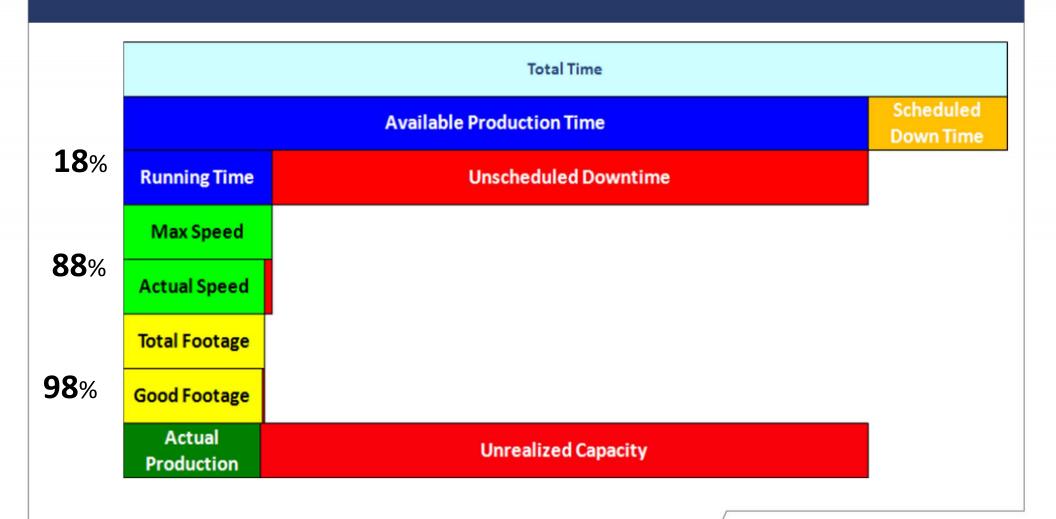


= Good Production / (Available Production Time * Max speed)

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



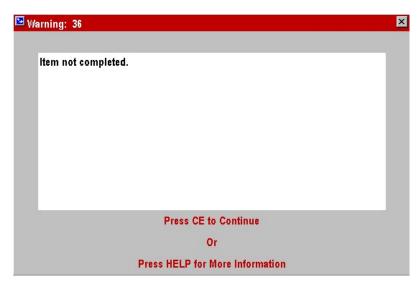
4 Methods of handling Scrap pieces:

- 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

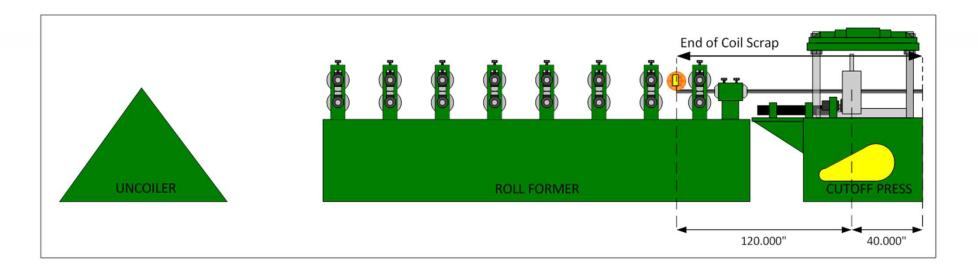


900 Bundle Number – For when you KNOW you're making Scrap!

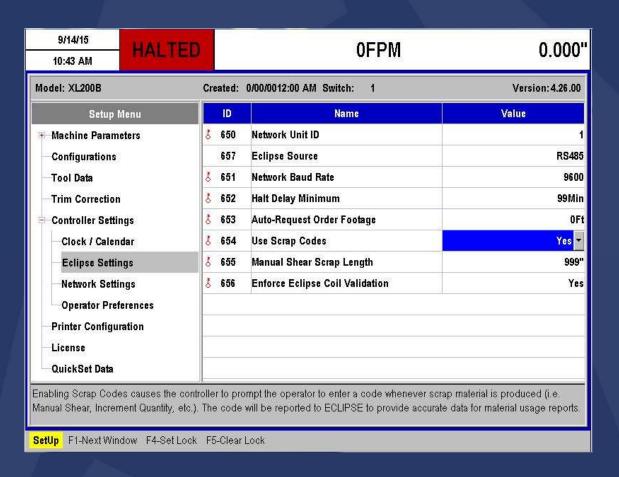
- Any bundle with a 900+ number is automatically counted as Scrap
- The last 2 digits carry the Scrap Code
- Used by Machine Operators to handle large quantities of Scrap
 - The current coil has a large section of defective material
 - The Machine Operator or Setup Man is working on a tooling setup or 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.



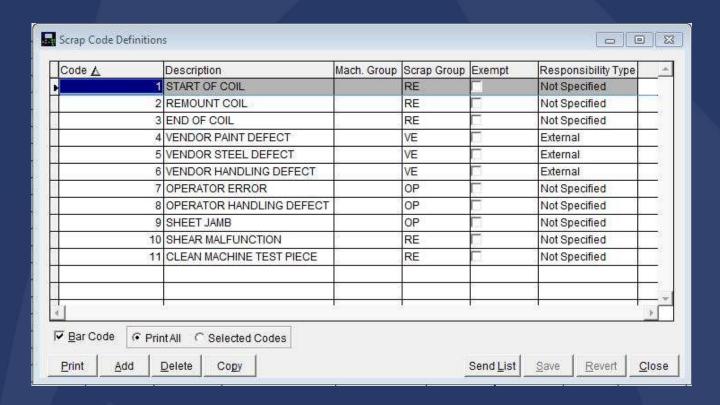




XL200 Controller Setup Screen



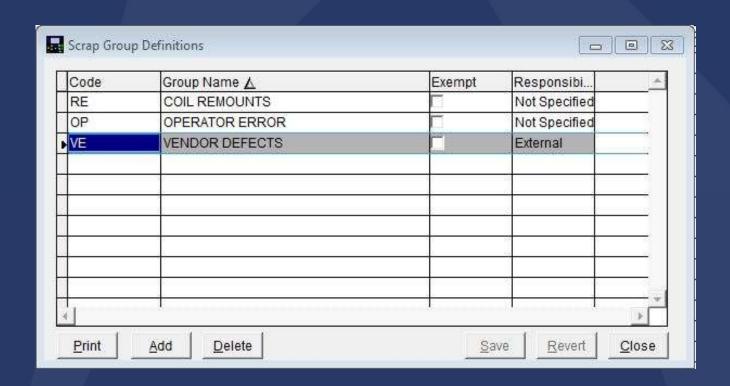
Scrap Codes



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

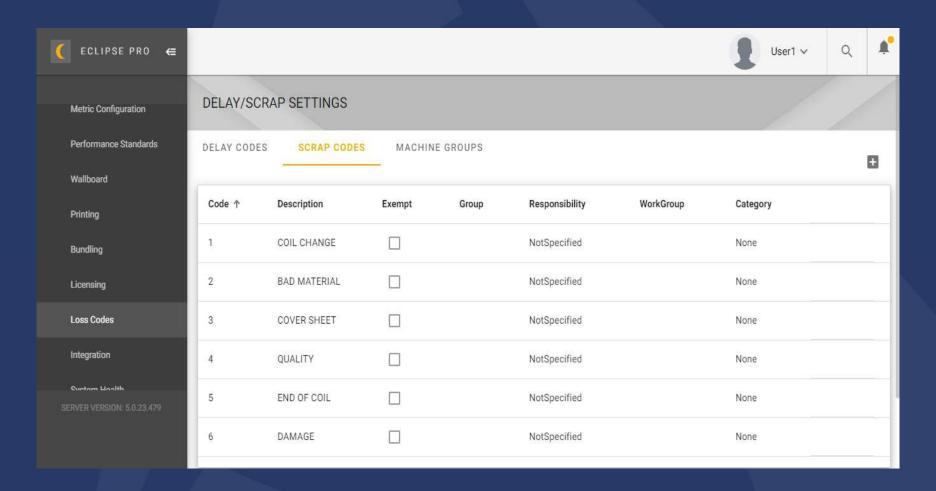


Scrap Codes-Groups



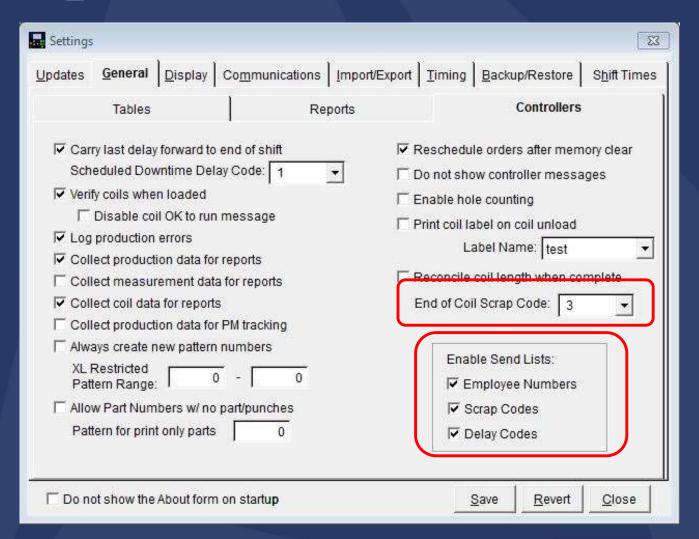


Scrap Codes-Groups





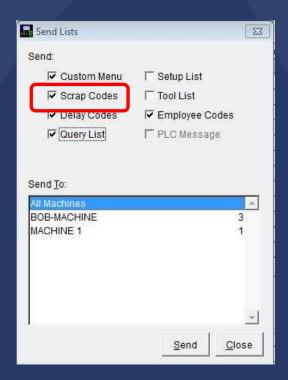
Scrap Codes



Settings Tab



Scrap Codes



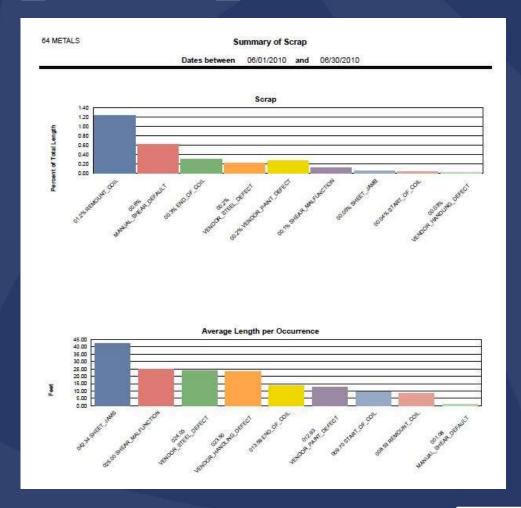


Scrap Reports

64 METALS		Summary of Scrap						
		Dates between	een 06/01/20	010 and	06/30/2010)		
	Gauge, Width, Prod Code:	29 41 000 29GA	MACHINE 1	[1]			Shift: 1	
	Total Footage:	8	88,209.06 ft		Total We	ight:	172,8	882.74 lbs
	Total Good Footage:	8	5,665.03 ft		Good We	ight:	167,9	01.72 lbs
	Average Footage:		5,200.74 ft		Average We	ight:	10.1	193.34 lbs
	Scrap Footage:		2,544.02 ft		Total Exit S	crap:	4,5	981.02 lbs
	Scrap Footage %:		2.88 %		Total Exit Scra	sp %:		2.88 %
	Scrap Cost:		3275.77		Raw Material S			0.00 lbs
	Reclaimed Footage:		0.00 ft		Reclaimed We			0.00 lbs
	Average Speed:		79.49 ftpm		Runtin	77 - 17 C	100000000	18.49 hrs
					Total H	ours:	1	31.77 hrs
Code	Scrap Reason		Scrap Length	% Total Length	Scrap Weight	% Total Weight	Ave Length Per Occur	Occurences
3	END OF COIL		271.72 ft	0.31	536.71 lbs	0.31	13.59 ft	2010/00/00/00/00/00/00/00/00/00/00/00/00/
2	REMOUNT COIL		1,083,82 ft	1.23	2,113.81 lbs	1.22	8.53 ft	1
10	SHEAR MALFUNCTION		100.00 ft	0.11	194.69 lbs	0.11	25.00 ft	
1	START OF COIL		38.81 €	0.04	78.06 lbs	0.05	9.70 ft	
		COIL 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	
		OPERATOR 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 €	0.22	374.97 lbs	0.22	24.03 ft	
		VENDOR DEFECTS Total	461.47 ft	0.52	904.03 lbs	0.52	16.48 ft	
		Non-Exenpt Total	2,544.02 ft	2.88	4,981.02 lbs	2.88	3.69 ft	e
		Total Scrap	2,544.02 ft	2.88	4,981.02 lbs	2.88	3.69 ft	6



Scrap Reports





Scrap Groups Report

Scrap Group Definitions

RE

OP

Group Name A

COIL REMOUNTS

OPERATOR ERROR

VENDOR DEFECTS External 64 METALS Summary of Scrap by Grouping Dates between 06/01/2010 and 06/30/2010 Gauge, Width, Prod Code: 29 41.000 29GA MACHINE 1 [1] Print Delete Revert 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 2 544 02 ft 4.981.02 lbs Scrap Footage: Total Exit Scrap: Scrap Footage %: 2.88 % Total Exit Scrap %: 2.88 % 3275.77 Scrap Cost Raw Material Scrap: 0.00 lbs Reclaimed Footage: 0.00 ft Reclaimed Weight: 0.00 lbs 14.04 % 18.49 hrs Average Speed: 79.49 ftpm Runtime %: Total Hours: 131.77 hrs % Total Scrap % Total Weight Ave Length Code Scrap Grouping Occurences Per Occur Length Length Weight 2 COIL REMOUNTS 1,494,36 ft 2.923.27 lbs 1.69 9.64 ft 155 0 NOT ASSIGNED 545.86 ft 1.069.64 lbs 508 0.82 1.08 ft 9 OPERATOR ERROR 42.34 ft 0.05 84.08 lbs 0.05 42.34 ft 4 VENDOR DEFECTS 461.47 ft 904.03 lbs 18 48 ft Non-Exenpt Total 2,544.02 ft 2.88 4.981.02 lbs 2.88 3.69 ft 689 Total Scrap 2.544.02 ft 4.981.02 lbs 3.69 ft 2,544.02 ft 2.88 4,981.02 lbs 2.88 Net Scrap



- P X

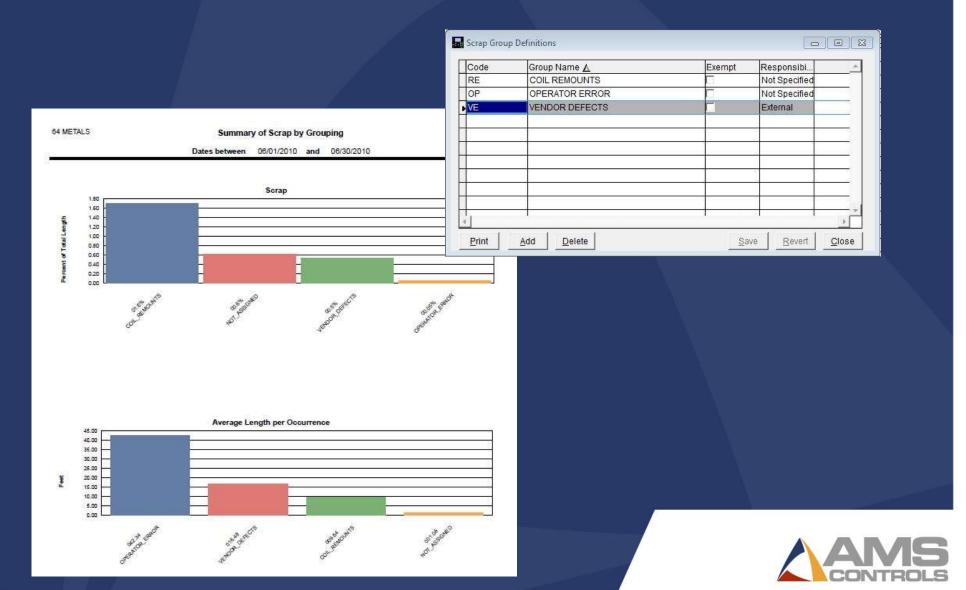
Responsibi.

Not Specified

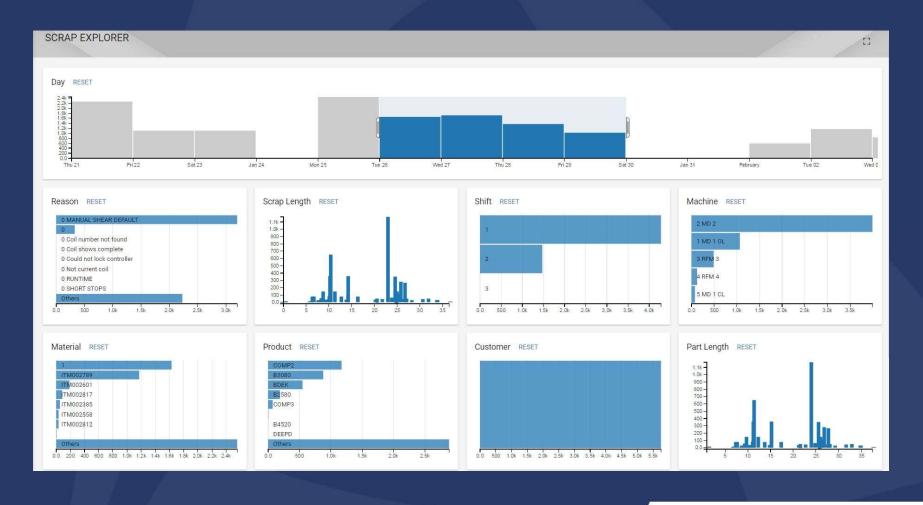
Not Specified

Exempt

Scrap Group Report



Scrap Reports



Eclipse Pro View with Premium Support



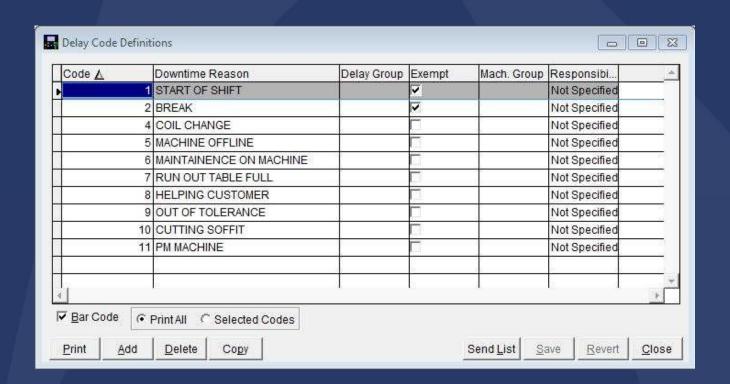


How Does Eclipse Help?

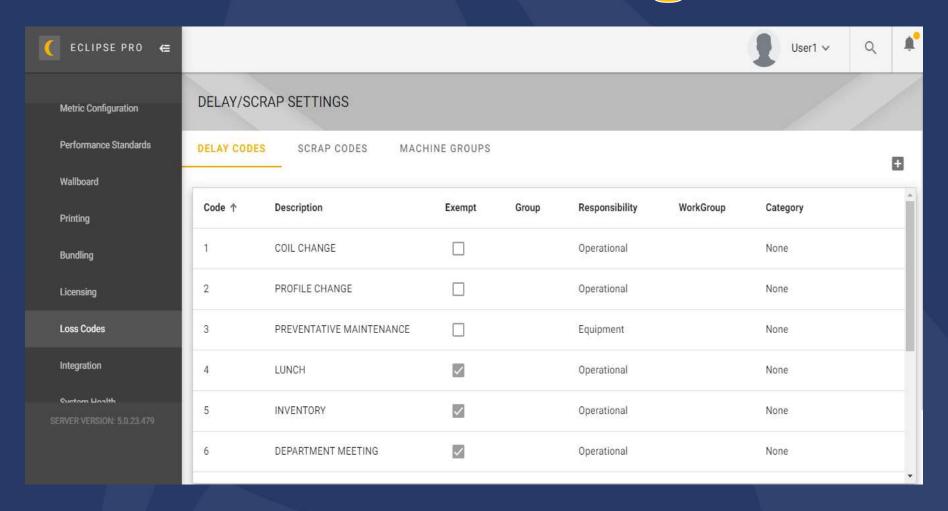
More Capacity

- 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

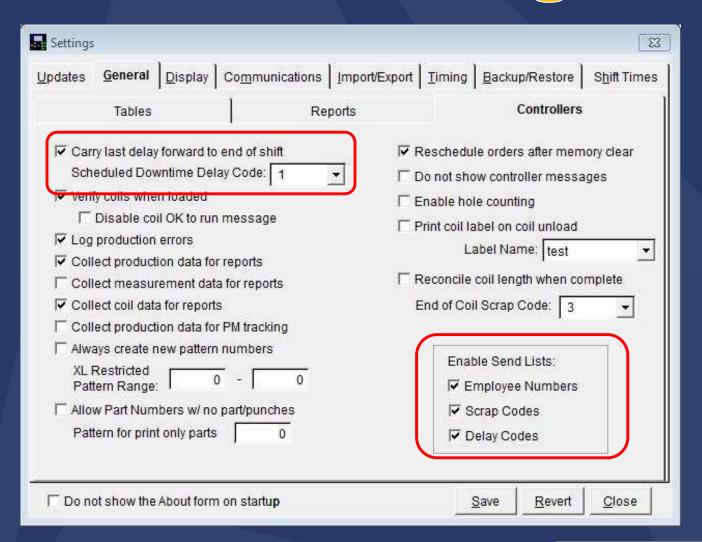






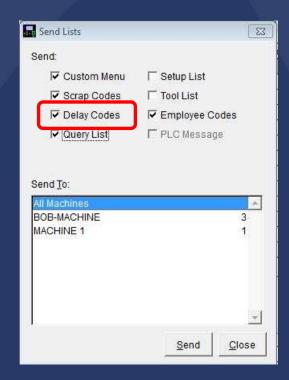




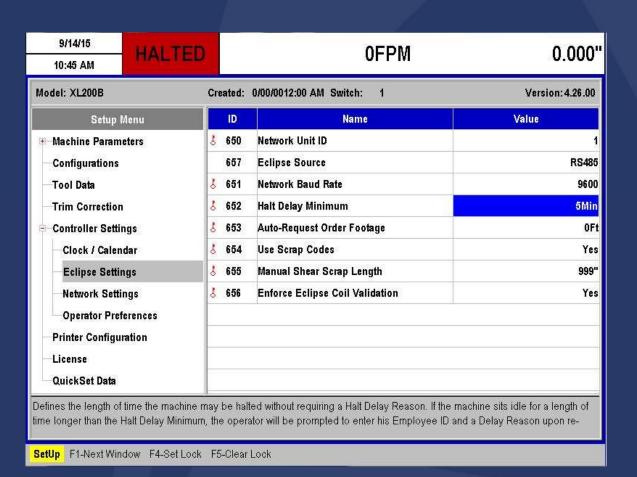


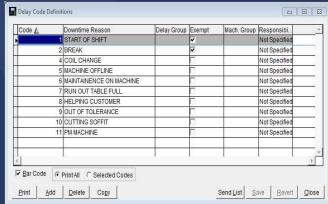
Settings Tab



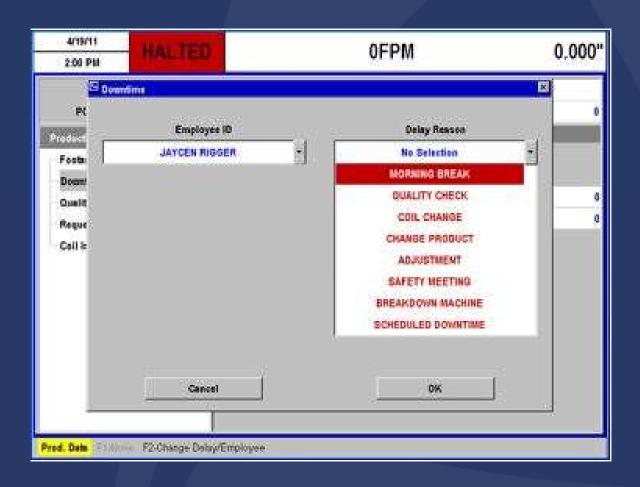


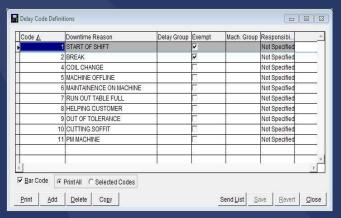






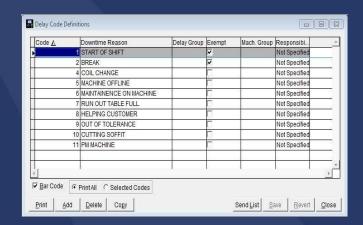




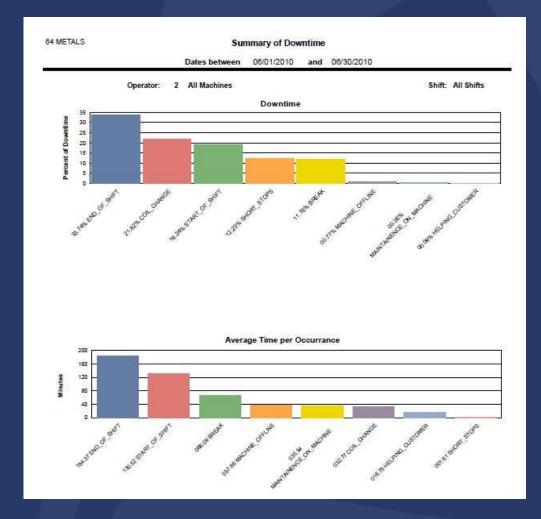


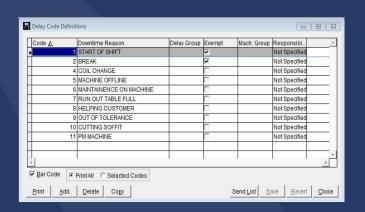


4 MET	FALS		Sumi	mary of D	owntime	E			
			Dates between	06/01/201	0 and	06/30/2010			
	Operator:	2	All Machines					Shift: /	All Shifts
	Total Footage:		152,002	.89 ft		Total Weigh	ŧ	297	7,747.77 lbs
	Total Good Footage:		147,668	.67 ft		Good Weigh	t.	289	,247.30 lbs
	Average Footage:		3,281	.64 ft		Average Weight	H.	6	,427.93 lbs
	Scrap Footage:		4,334	.22 ft		Total Exit Scrap):	8	,500.47 lbs
	Scrap Footage %:		2.	85 %		Total Exit Scrap %	r.		2.85 %
	Scrap Cost:		55	81.05		Raw Material Scrap):		0.00 lbs
	Reclaimed Footage:		0	.00 ft		Reclaimed Weight	ts:		0.00 lbs
	Average Speed:		78.91	ftpm		Runtime %	8.9	2 %	32.10 hrs
						Total Hours	:		359.99 hrs
Code	Delay Reason			N	linutes	% Downtime	% Total Time	Ave Time per Occur	Occurence
00	END OF SHIFT				6637.28	33.74	30.73	184.37	
04	COIL CHANGE				4292,45	21.82	19.87	32.77	
01	START OF SHIFT				3784.95	19.24	17.52	130.52	
02	BREAK				2312.98	11.76	10.71	66.09	
05	MACHINE OFFLINE				151.42	0.77	0.70	37.86	
06	MAINTAINENCE ON MACHINE				70.68	0.36	0.33	35.34	
08	HELPING CUSTOMER				16.75	0.09	0.08	16.75	
			NOT ASSIGNED	Total	17266.51	87.77	79.94	72.55	
00	SHORT STOPS				2406.53	12.23	11.14	1.61	14
	CENTER OF MARIE		SHORT STOPS	Total	2406.53	12.23	11.14	1.61	14
			Non Exemp	t Total	19673.04	100.00	91.08	11.35	17
	RUN TIME				1926.24		8.92	0.84	23
			RUN TIME	Total	1926.24		8.92	0.84	23
			Total Dow	mtime	19673.04		91.08	11.35	-17
			6.274	I Time	21599.28				











World-class Roll Forming

Summary of Downtime

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

	Operator	20002 PETER MACULISKIS AII	Machines			Shift A	JI Shifts	
	Total Footage:	54,252.01 ft		Total Wei	ht	68.5	45.19 bs	
	Total Good Footage:	53,576.75 ft		Good Weig	ht	65.4	45.52 bs	
	Average Footage:	14,094.51 ft		Average Weig	ht	17.2	10.84 06	
	Scrap Footage:	675.25 ft	Total Exit Scrap:			1,0	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	Reclaimed Weight Runtime %:				626.45 lbs 7.72 hrs	
	Average Speed:	117.05 ftpm						
				Total Hou	ins:		42.76 hrs	
Code	Delay Resson		Moutes	% Dountine	% Total Time	Ave Time per Occur	Occurences	
03	COIL CHANGE / LOADING C	OIL	329.69	15.69	12.86	27.40	Thinking (
		Material Handling Total	329.89	15.69	12.86	27,49		
05	ADJUSTMENT		56.97	2.61	2.30	7.37		
67	BREAKDOWN MACHINE/ PR	INTER	27.79	1.32	1.08	9.28		
04	CHANGE PRODUCT / LENG	TH	631.40	30.03	24.61	90.20		
02	NORMAL RUN / QUALITY CH	ECK	170.91	8.13	6.66	8.14	- 1	
		NOT ASSIGNED Total	889.07	42.29	34.65	22.80		
00	SHORT STOPS		142.15	6.76	5.54	1.05	41	
		SHORT STOPS Total	142.15	6.76	5,54	1.05	1	
		Non Exempt Total	1361.11	64.74	53.05	7.32	11	
09	END SHIFT		168.27	8.00	6.56	33.85		
68	SCHEDULED DOWNTIME/ N	EAL BREAK	151.14	8.62	7.06	36.23		
01	START SHIFT		391.78	15.64	15.27	55.97		
		Scheduled Downtime Total	741.19	35.26	29.89	43.60		
	RUN TIME		463.49		18.06	1.90	24	
		RUN TIME TOLAL	463.49		18.06	1.90	24	
		Total Downtime	2102.30		81,94	10.36	21	
		Total Time	2565.79					

World-class Roll Forming

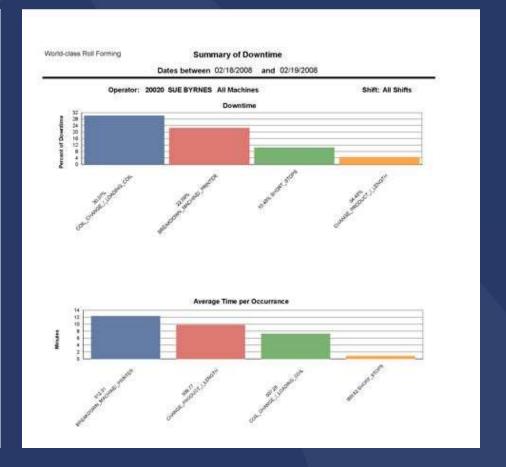
Summary of Downtime

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

	Operator:	20020 SUE BYRNES All Machin	nes			Shift	All Shifts
	Total Footage:	51,389.21 R		Total Wei	ght		0.00 bs
	Total Good Footage:	51,184.94 ft		Good Wei	ght		0.00 lbs
	Average Footage:	60,365.53 ft	Average Weight:				0.00 lbs
	Scrap Footage:	204.27 ft		Total Exit Sc	10000		0.00 lbs
	Scrap Footage %:	0.40 %		Total Exit Scrap			0.%
	Scrap Cost:	0.00		aw Material Sc			0.00 lbs
	Reclaimed Footage:	102.36 ft	Reclaimed Weight:				0.00 lbs
	Average Speed:	197.96 ftpm.		Runtim		78.%	4.33 hrs
				Total Ho	urs:		7.96 hrs
Code	Delay Reason		Minutes	% Downtime	% Total Time	Ave Time p	Occurences
63	COIL CHANGE / LOADING O	DIL	65.55	30.07	13.72	7.28	
		Material Handling Total	65.55	30.07	13.72	7.29	
07	BREAKDOWN MACHINE/ PR	INTER	49.24	22.59	10.31	12.31	
04	CHANGE PRODUCT / LENG	TH	9.77	4.46	2.05	9.77	
		NOT ASSIGNED Total	59.01	27.07	12.36	11,80	
00	SHORT STOPS		22.85	10.48	4.78	0.80	1
		SHORT STOPS Total	22.85	10.48	4.78	0.93	
		Non Exempt Total	147,41	67.61	30.86	3.51	
09	END SHIFT		14.03	6.44	2.94	7.00	
08	SCHEDULED DOWNTIME/ N	EAL BREAK	56.58	25.95	11.85	28.29	
		Scheduled Downtime Total	70.61	32.39	14.78	17.60	
	RUN TIME		259.59		54.35	8.04	1
		RUN TIME Total	259.59		54.35	6.04	
		Total Downtime	218.62		45.65	4.74	-















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

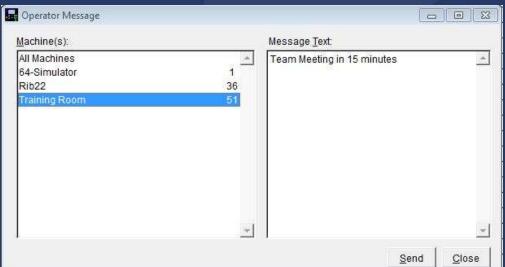
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	Outline View (1)	Item Detail (<u>2</u>)
Query Lists	Identifier Item Text	
Outline View (1)	Request Order	
(1) Request Order	List Type: Order ▼ Permanent: ▼	Next List 000 ▼ ∡
(10) Orders by PCode	Available Statuses: Status Filter	Selected Statuses:
(11) Orders by Material (pcode) (12) Orders (pcode:material)	Scheduled Agd >	
(20) Order for Current Set Up	Current Material < Remove	
	Available Fields: Fields to Send	Selected Fields:
	Work Order Truck Number	Material Order Number
	Customer Name A₫d >	Required Date
	Gauge < Remove < Remove	
	Color Mati Desc	
	Product Group	
		List
	1 64-Simulator [1]	
		-
	4.	•
	Print New Item Delete Se	end List Save Revert Close
Print New Item Delete Send List	Save Revert Close	
	International International International	

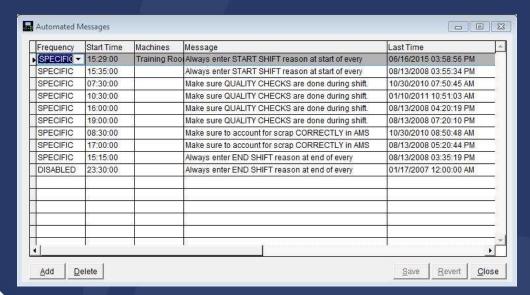


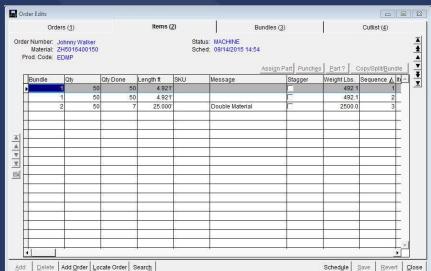
Operator Messages



Operator Messages





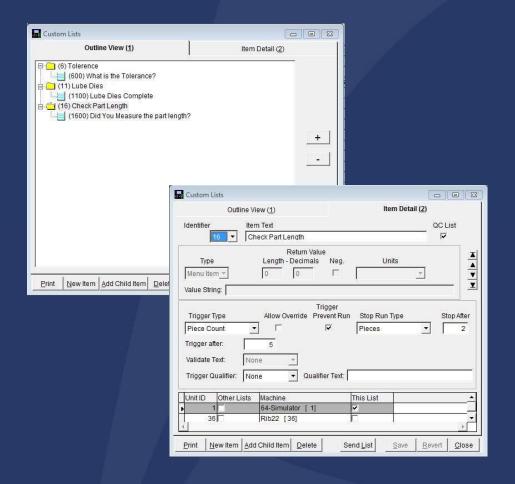


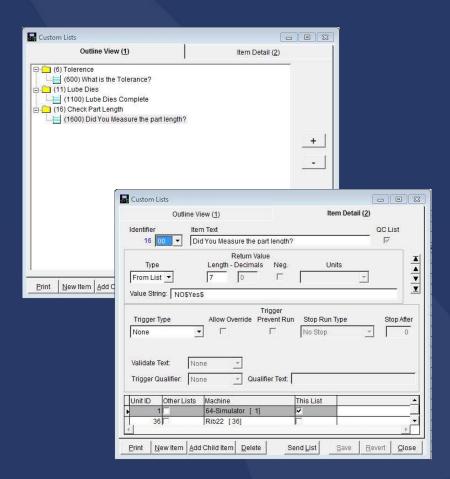


Quality Audits



Quality Audits



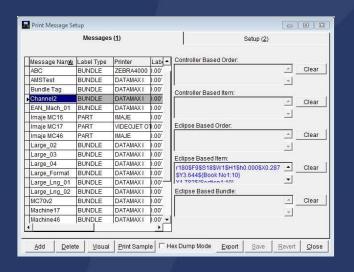


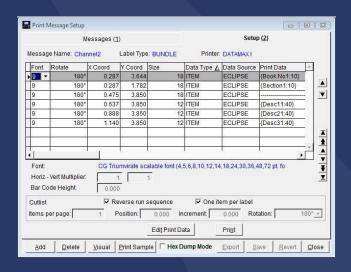


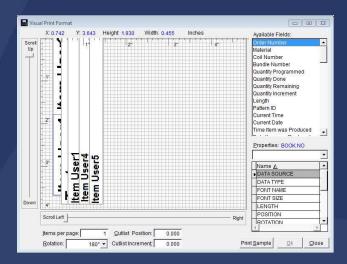
Bundle Tag/Part Printing



Bundle Tag/Part Printing









Let's Make More Money!

After implementing Eclipse...

- 1. No more data entry downtime
- 2. 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



