Plex Supply Chain Community

It Has To Be Done Right

"Advice from JDAN"

John Perry Dancoe, Principal Consultant

VON BLITZ DESIGN LLC

BE PREPARED

“Never go to the moon without duct tape.”

John Perry Dancoe

from *My Very Best Advice*

"But with the throttle screwed on there is only the barest margin, and no room at all for mistakes.

It has to be done right…"

Hunter S. Thompson

from *Hell's Angels* *A Strange and Terrible Saga*

BMW
IT HAS TO BE DONE RIGHT.

Who is John Perry Dancoe (aka “JDAN”)?

- 1991 - MSP Industries: Tooling and Process Design Engineer
- 1994 - BBC: Chief Engineer
  - Directed first implementation of Plexus Information System outside MSP
- 1997 - Plexus Systems: Application Developer
- 2007 - Plexus Systems: Sr. Implementation Project Manager
- 2011 - Plex Systems: Sr. Product Manager
  - Product Data Management (Parts, Routings, BOMs)
  - Quality Management System
  - Lot Management System
- 2021 - VON BLITZ DESIGN LLC

What is VON BLITZ DESIGN LLC ?

- "von Blitz" means "of lightning"
  - *Energy*
  - *Speed*
  - *Brilliance*

- Q: What does von Blitz design?
  - A: *What do you need?*

What is VONBLITZ DESIGN LLC ?

- *IT consulting, with deep expertise in the Plex Manufacturing Cloud*
- Custom reporting and analytics development
- Configuration analysis and optimization
- Implementation services
- Quality management consulting
- Business process design and improvement
- Manufacturing process design and improvement
- Mechanical design
- Problem solving

Agenda

- Doing It Right with the Plex Quality Management System
- Ask Me Anything

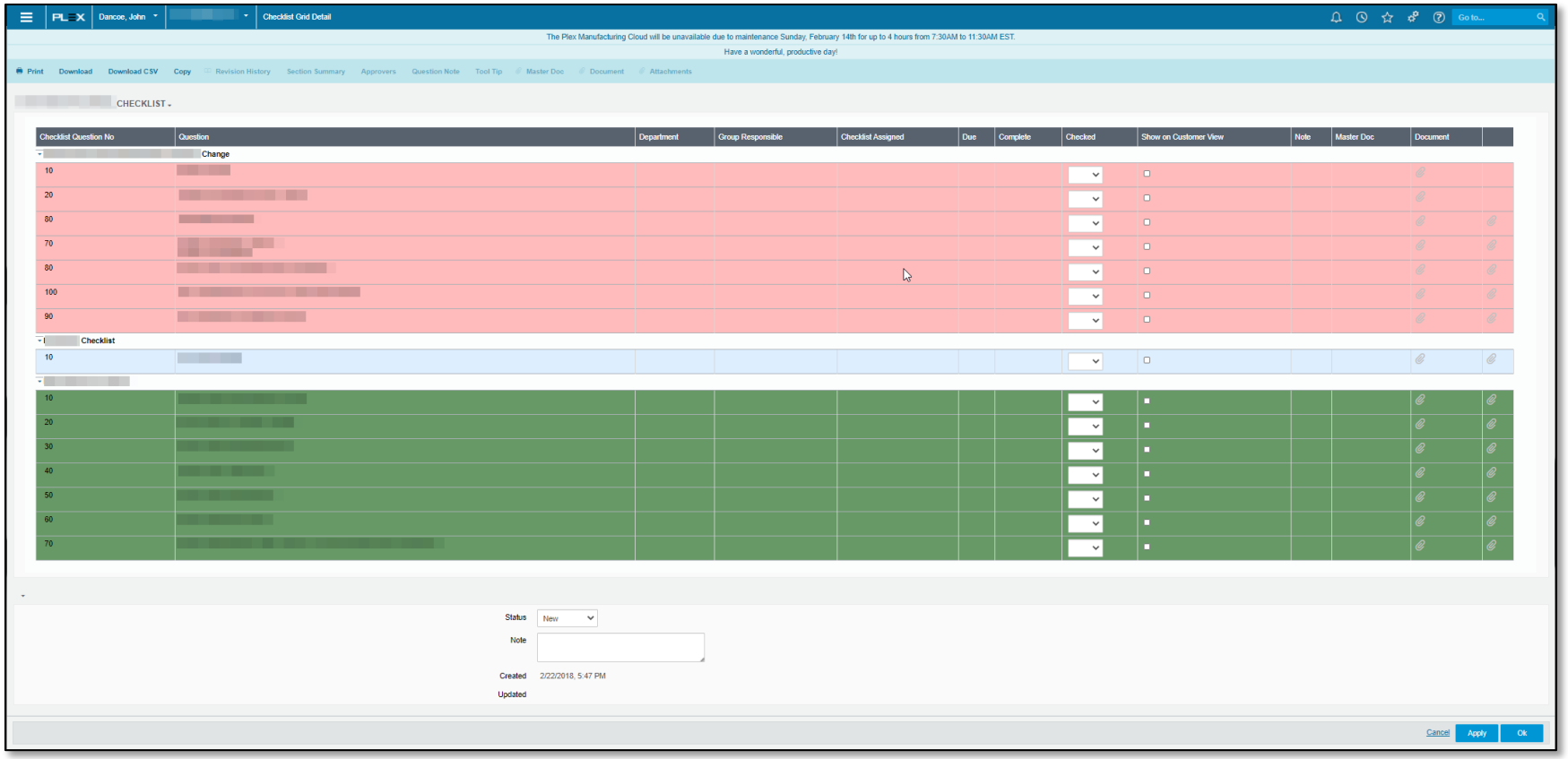
It has to be done right.

Doing It Right with Plex QMS

- Advanced Product Quality Planning (APQP)
- Failure Mode and Effects Analysis (FMEA)
- Part and Process Specifications
- Control Plans, Checksheets, and SPC
- Gage Control
- Production Part Approval Process (PPAP)
- Supplier Quality Management (SQM)
- Problem Control
- Compliance and Audits

Doing It Right with Plex QMS

- Advanced Product Quality Planning (APQP)



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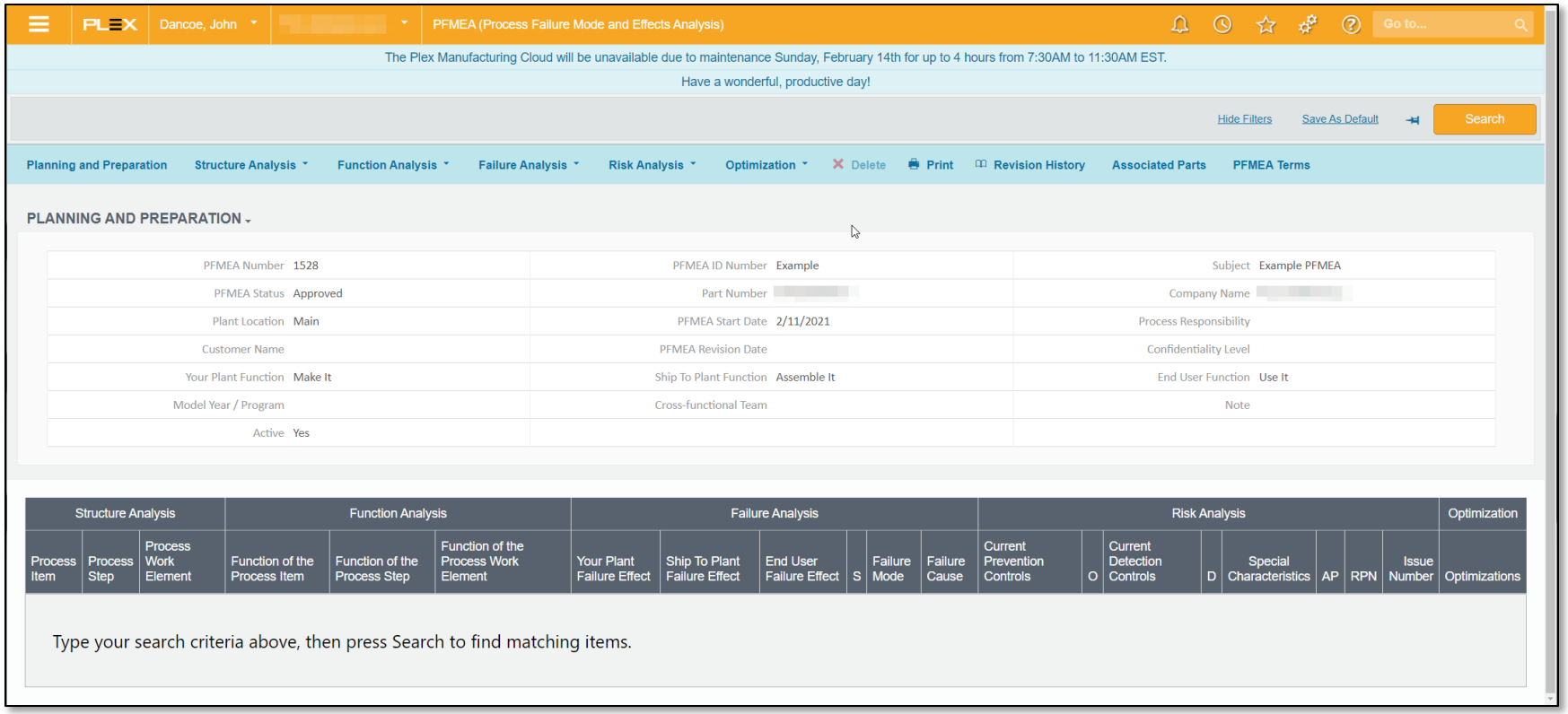
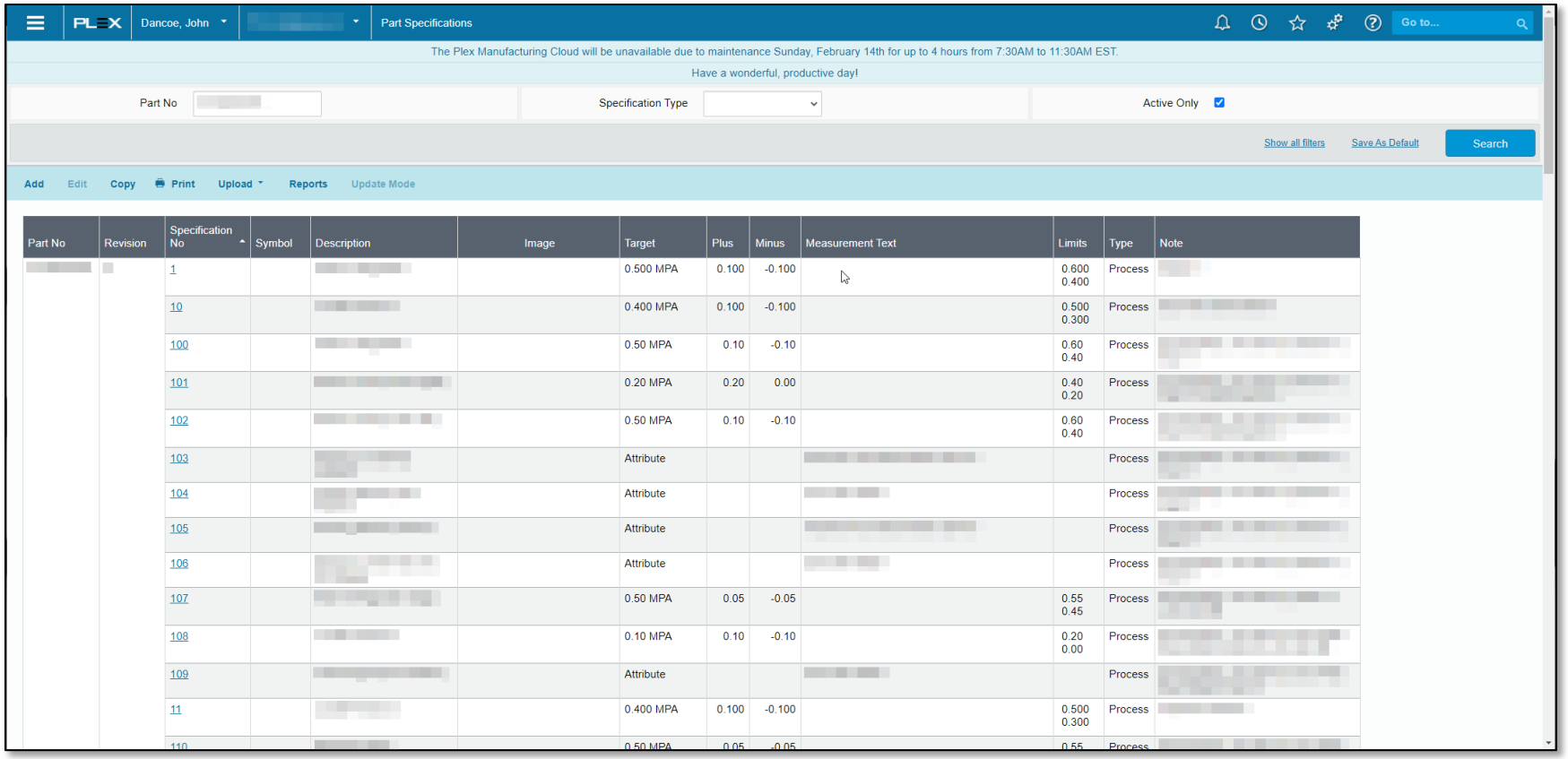
- Failure Mode and Effects Analysis (FMEA) / PFMEAs



Doing It Right with Plex QMS

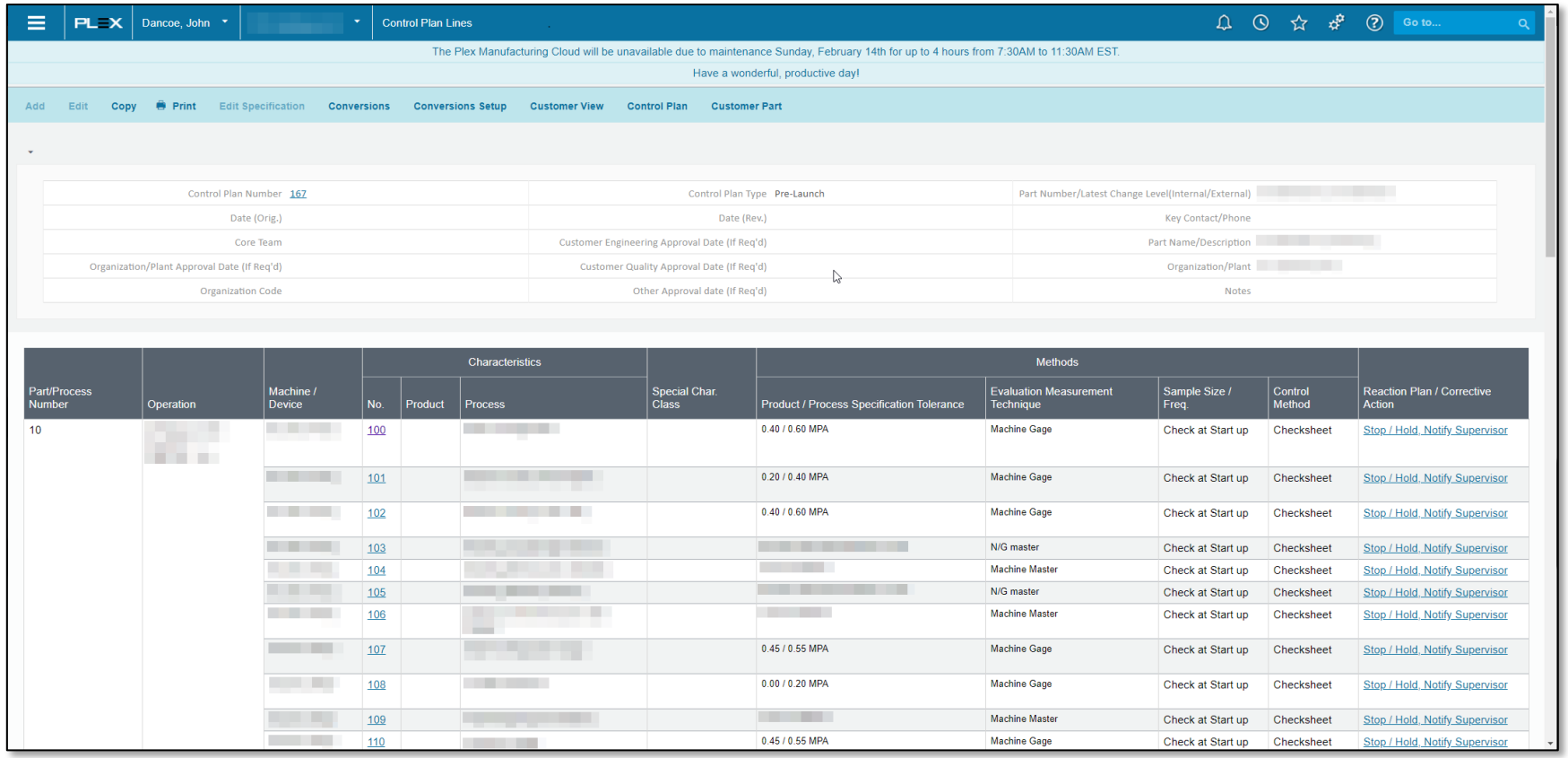
- Part (and Process) Specifications



Part No	Revision	Specification No	Symbol	Description	Image	Target	Plus	Minus	Measurement Text	Limits	Type	Note
		1				0.500 MPA	0.100	-0.100		0.600 0.400	Process	
		10				0.400 MPA	0.100	-0.100		0.500 0.300	Process	
		100				0.50 MPA	0.10	-0.10		0.60 0.40	Process	
		101				0.20 MPA	0.20	0.00		0.40 0.20	Process	
		102				0.50 MPA	0.10	-0.10		0.60 0.40	Process	
		103				Attribute					Process	
		104				Attribute					Process	
		105				Attribute					Process	
		106				Attribute					Process	
		107				0.50 MPA	0.05	-0.05		0.55 0.45	Process	
		108				0.10 MPA	0.10	-0.10		0.20 0.00	Process	
		109				Attribute					Process	
		11				0.400 MPA	0.100	-0.100		0.500 0.300	Process	
		110				0.50 MPA	0.05	-0.05		0.55	Process	

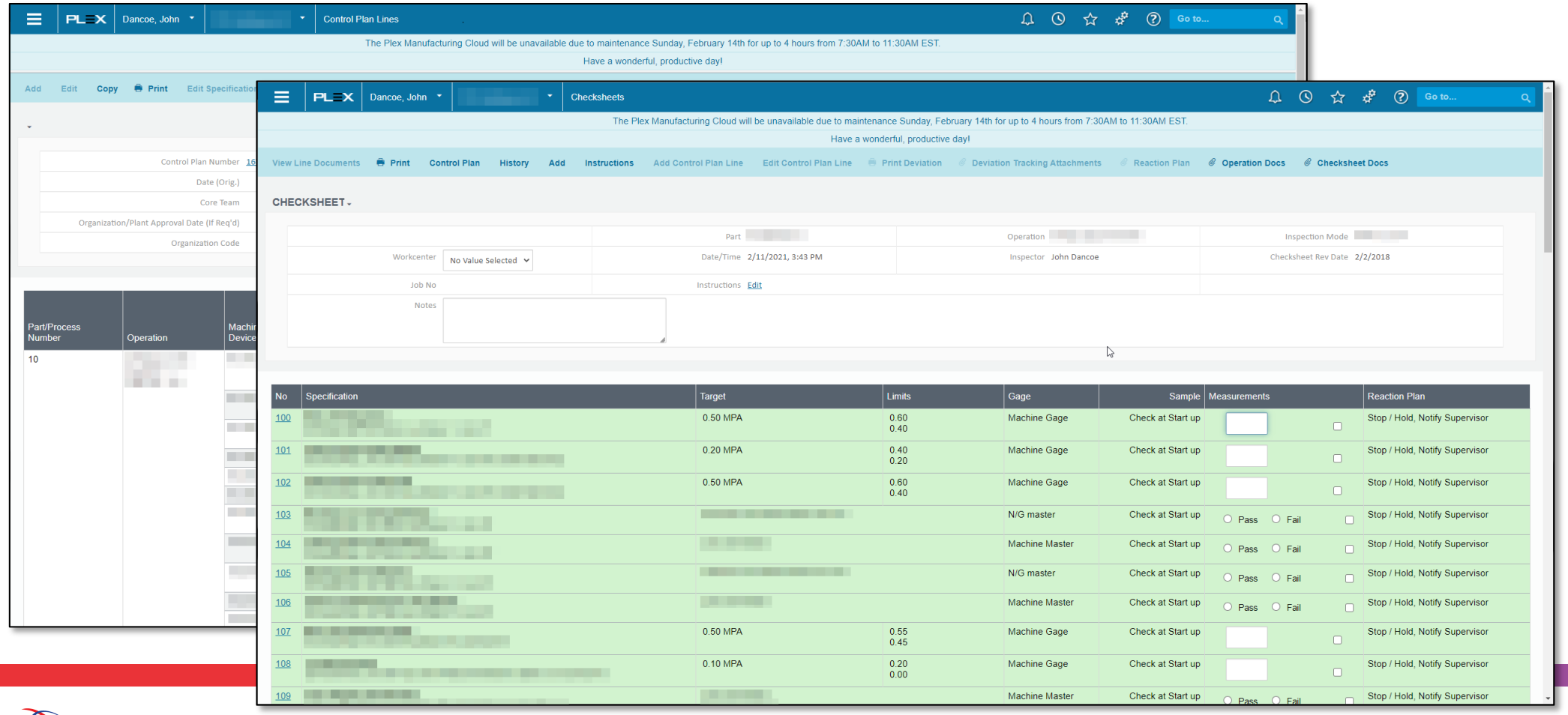
Doing It Right with Plex QMS

- Control Plans, Checksheets, and SPC



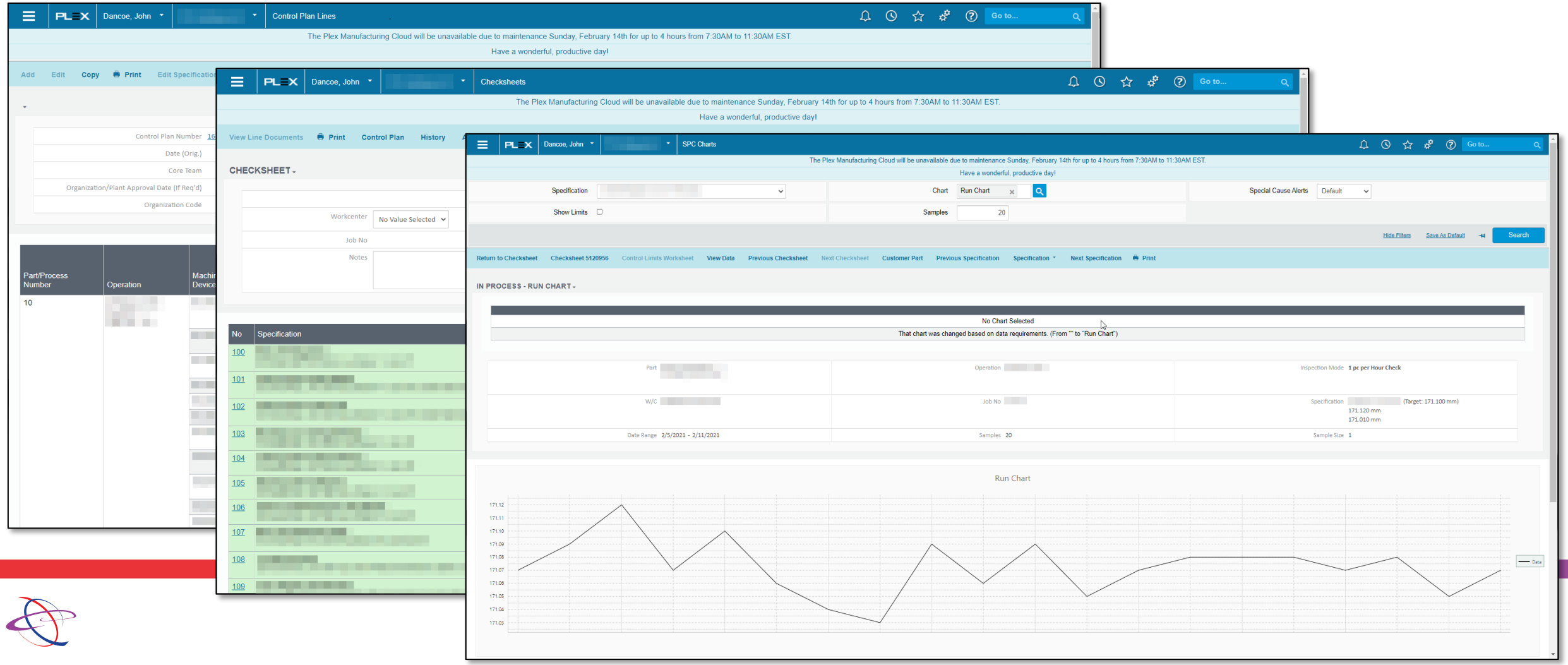
Doing It Right with Plex QMS

- Control Plans, Checksheets, and SPC



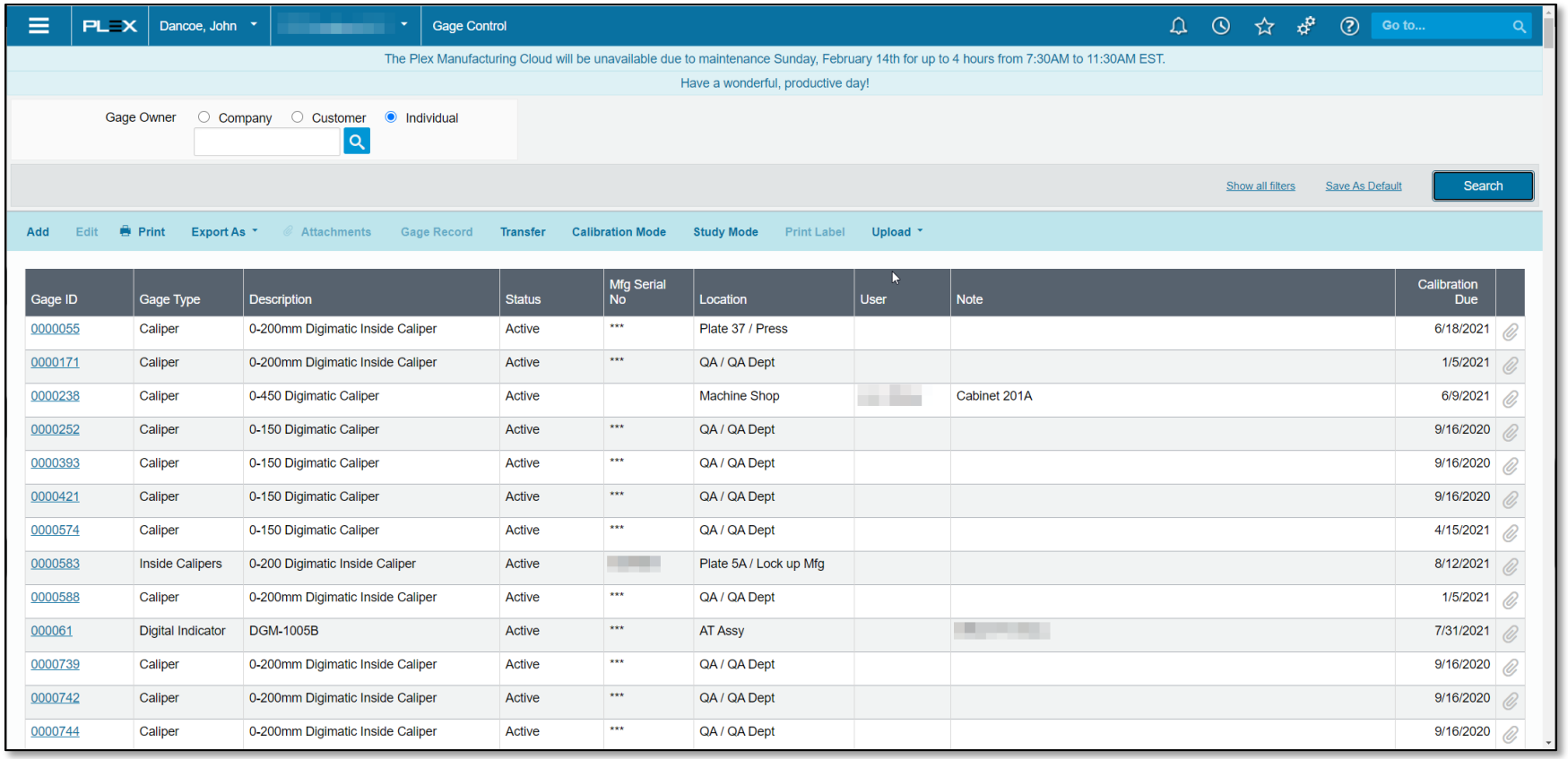
Doing It Right with Plex QMS

- Control Plans, Checksheets, and SPC



Doing It Right with Plex QMS

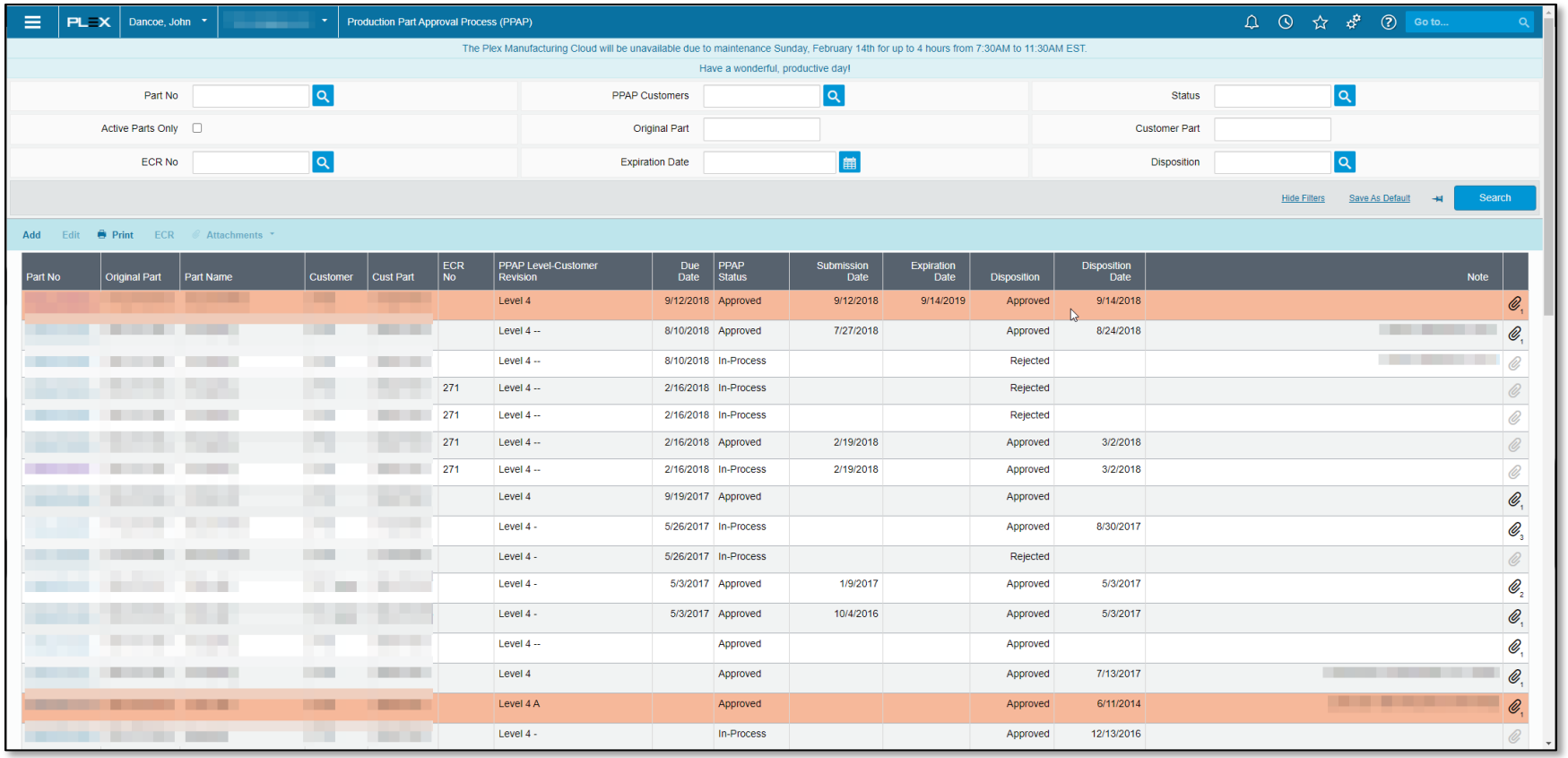
- Gage Control



Gage ID	Gage Type	Description	Status	Mfg Serial No	Location	User	Note	Calibration Due
0000055	Caliper	0-200mm Digimatic Inside Caliper	Active	***	Plate 37 / Press			6/18/2021
0000171	Caliper	0-200mm Digimatic Inside Caliper	Active	***	QA / QA Dept			1/5/2021
0000238	Caliper	0-450 Digimatic Caliper	Active		Machine Shop		Cabinet 201A	6/9/2021
0000252	Caliper	0-150 Digimatic Caliper	Active	***	QA / QA Dept			9/16/2020
0000393	Caliper	0-150 Digimatic Caliper	Active	***	QA / QA Dept			9/16/2020
0000421	Caliper	0-150 Digimatic Caliper	Active	***	QA / QA Dept			9/16/2020
0000574	Caliper	0-150 Digimatic Caliper	Active	***	QA / QA Dept			4/15/2021
0000583	Inside Calipers	0-200 Digimatic Inside Caliper	Active		Plate 5A / Lock up Mfg			8/12/2021
0000588	Caliper	0-200mm Digimatic Inside Caliper	Active	***	QA / QA Dept			1/5/2021
000061	Digital Indicator	DGM-1005B	Active	***	AT Assy			7/31/2021
0000739	Caliper	0-200mm Digimatic Inside Caliper	Active	***	QA / QA Dept			9/16/2020
0000742	Caliper	0-200mm Digimatic Inside Caliper	Active	***	QA / QA Dept			9/16/2020
0000744	Caliper	0-200mm Digimatic Inside Caliper	Active	***	QA / QA Dept			9/16/2020

Doing It Right with Plex QMS

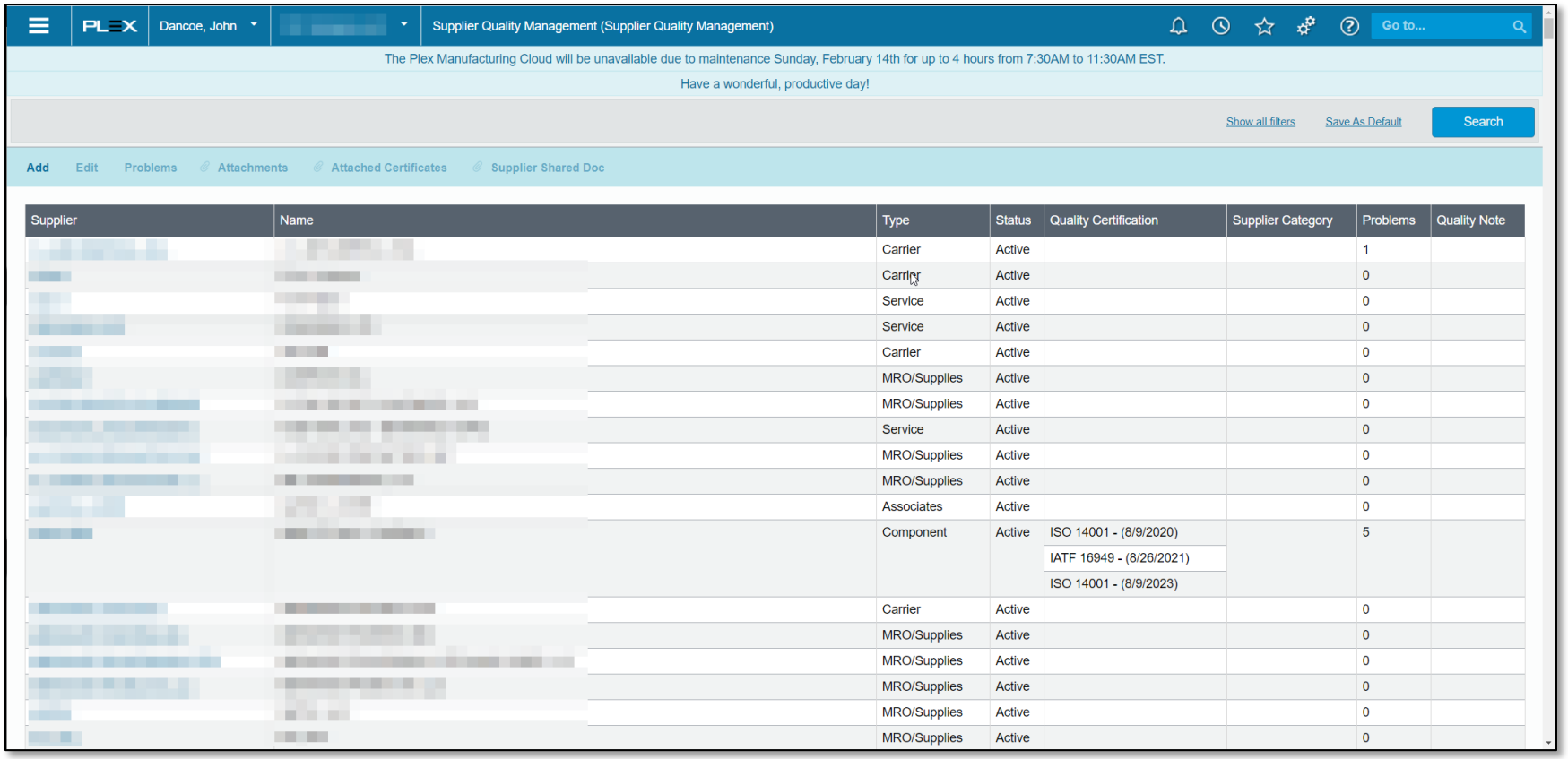
- Production Part Approval Process (PPAP)



Part No	Original Part	Part Name	Customer	Cust Part	ECR No	PPAP Level-Customer Revision	Due Date	PPAP Status	Submission Date	Expiration Date	Disposition	Disposition Date	Note
						Level 4	9/12/2018	Approved	9/12/2018	9/14/2019	Approved	9/14/2018	
						Level 4 --	8/10/2018	Approved	7/27/2018		Approved	8/24/2018	
						Level 4 --	8/10/2018	In-Process			Rejected		
					271	Level 4 --	2/16/2018	In-Process			Rejected		
					271	Level 4 --	2/16/2018	In-Process			Rejected		
					271	Level 4 --	2/16/2018	Approved	2/19/2018		Approved	3/2/2018	
					271	Level 4 --	2/16/2018	In-Process	2/19/2018		Approved	3/2/2018	
						Level 4	9/19/2017	Approved			Approved		
						Level 4 -	5/26/2017	In-Process			Approved	8/30/2017	
						Level 4 -	5/26/2017	In-Process			Rejected		
						Level 4 -	5/3/2017	Approved	1/9/2017		Approved	5/3/2017	
						Level 4 -	5/3/2017	Approved	10/4/2016		Approved	5/3/2017	
						Level 4 --		Approved			Approved		
						Level 4		Approved			Approved	7/13/2017	
						Level 4 A		Approved			Approved	6/11/2014	
						Level 4 -		In-Process			Approved	12/13/2016	

Doing It Right with Plex QMS

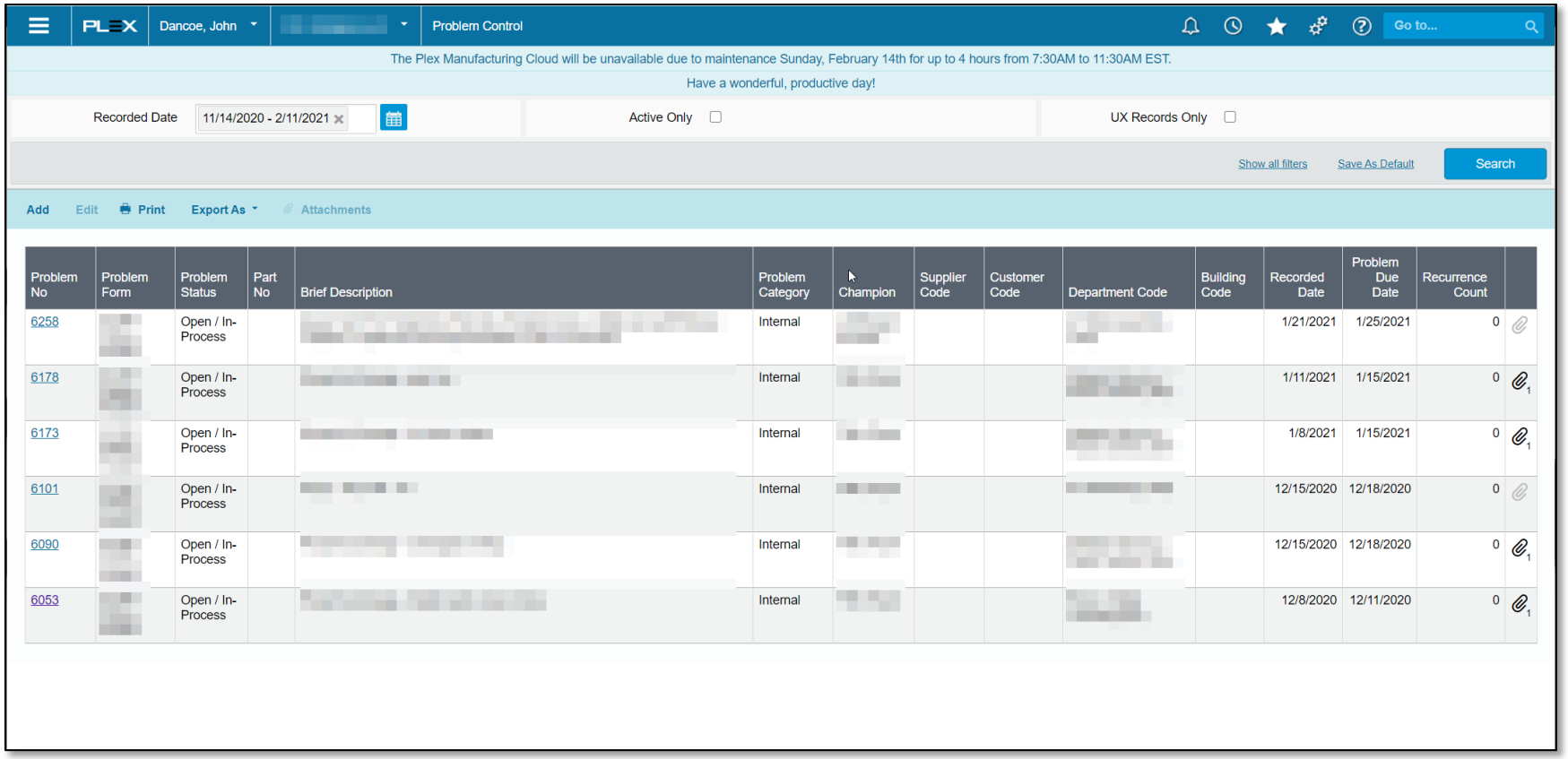
- Supplier Quality Management (SQM)



Supplier	Name	Type	Status	Quality Certification	Supplier Category	Problems	Quality Note
		Carrier	Active			1	
		Carrier	Active			0	
		Service	Active			0	
		Service	Active			0	
		Carrier	Active			0	
		MRO/Supplies	Active			0	
		MRO/Supplies	Active			0	
		Service	Active			0	
		MRO/Supplies	Active			0	
		MRO/Supplies	Active			0	
		Associates	Active			0	
		Component	Active	ISO 14001 - (8/9/2020) IATF 16949 - (8/26/2021) ISO 14001 - (8/9/2023)		5	
		Carrier	Active			0	
		MRO/Supplies	Active			0	
		MRO/Supplies	Active			0	
		MRO/Supplies	Active			0	
		MRO/Supplies	Active			0	
		MRO/Supplies	Active			0	

Doing It Right with Plex QMS

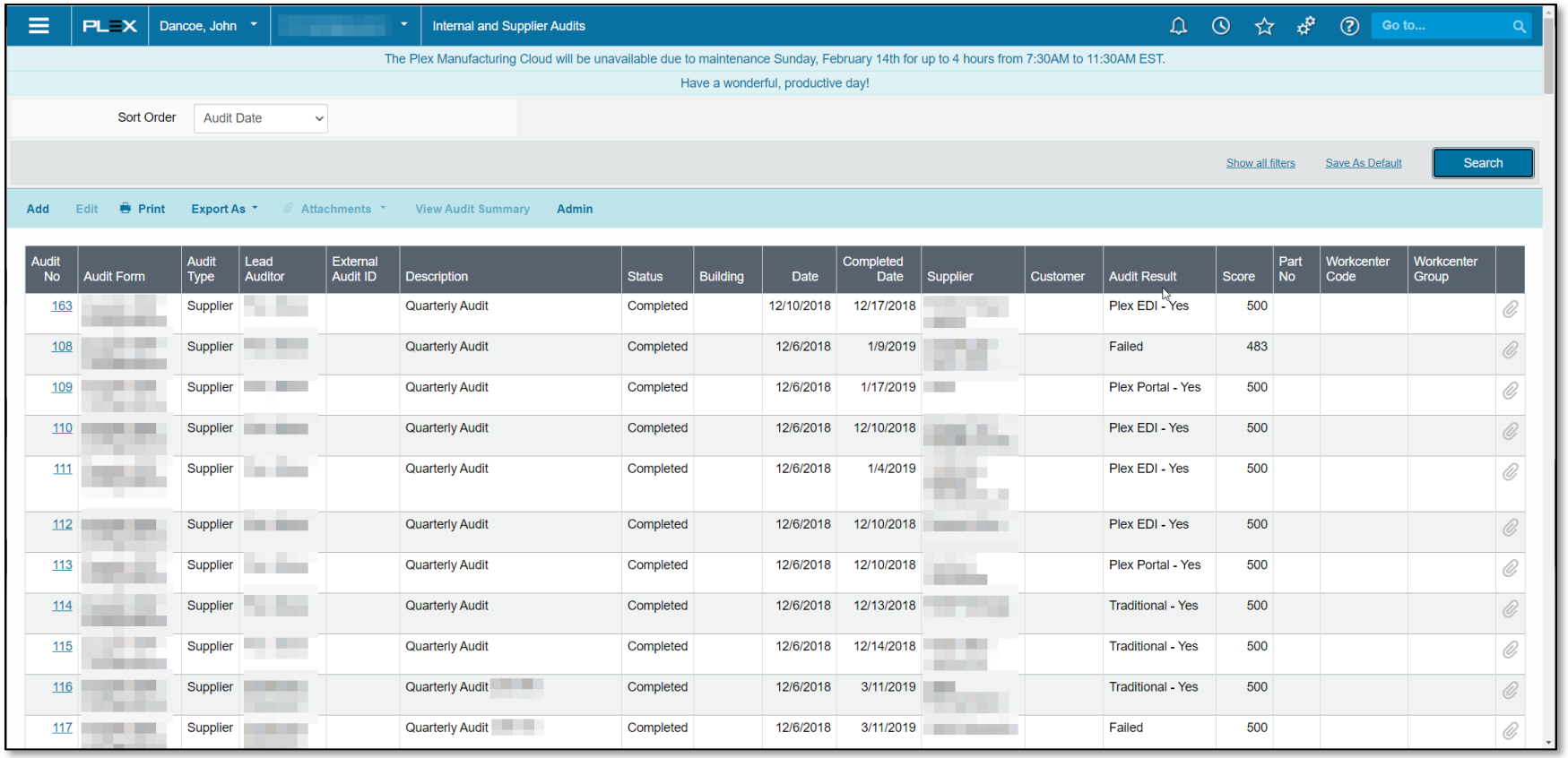
- Problem Control



Problem No	Problem Form	Problem Status	Part No	Brief Description	Problem Category	Champion	Supplier Code	Customer Code	Department Code	Building Code	Recorded Date	Problem Due Date	Recurrence Count	
6258		Open / In-Process			Internal						1/21/2021	1/25/2021	0	
6178		Open / In-Process			Internal						1/11/2021	1/15/2021	0	1
6173		Open / In-Process			Internal						1/8/2021	1/15/2021	0	1
6101		Open / In-Process			Internal						12/15/2020	12/18/2020	0	
6090		Open / In-Process			Internal						12/15/2020	12/18/2020	0	1
6053		Open / In-Process			Internal						12/8/2020	12/11/2020	0	1

Doing It Right with Plex QMS

- Compliance and Audits



Audit No	Audit Form	Audit Type	Lead Auditor	External Audit ID	Description	Status	Building	Date	Completed Date	Supplier	Customer	Audit Result	Score	Part No	Workcenter Code	Workcenter Group
163		Supplier			Quarterly Audit	Completed		12/10/2018	12/17/2018			Plex EDI - Yes	500			
108		Supplier			Quarterly Audit	Completed		12/6/2018	1/9/2019			Failed	483			
109		Supplier			Quarterly Audit	Completed		12/6/2018	1/17/2019			Plex Portal - Yes	500			
110		Supplier			Quarterly Audit	Completed		12/6/2018	12/10/2018			Plex EDI - Yes	500			
111		Supplier			Quarterly Audit	Completed		12/6/2018	1/4/2019			Plex EDI - Yes	500			
112		Supplier			Quarterly Audit	Completed		12/6/2018	12/10/2018			Plex EDI - Yes	500			
113		Supplier			Quarterly Audit	Completed		12/6/2018	12/10/2018			Plex Portal - Yes	500			
114		Supplier			Quarterly Audit	Completed		12/6/2018	12/13/2018			Traditional - Yes	500			
115		Supplier			Quarterly Audit	Completed		12/6/2018	12/14/2018			Traditional - Yes	500			
116		Supplier			Quarterly Audit	Completed		12/6/2018	3/11/2019			Traditional - Yes	500			
117		Supplier			Quarterly Audit	Completed		12/6/2018	3/11/2019			Failed	500			

Doing It Right with Plex QMS

AMA

- Topics with which I've recently been involved:
  - BOM Substitutions
  - Configurable UX problem control forms
  - AIAG & VDA PFMEA
  - Improved SPC notifications
  - Stand-alone Plex QMS
  - Improved Lot Trace report
  - 2021 MES roadmap:
    - Unit of measure rationalization
    - Multiple routings
    - Batch management
    - Yield management

VON BLITZ DESIGN LLC

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