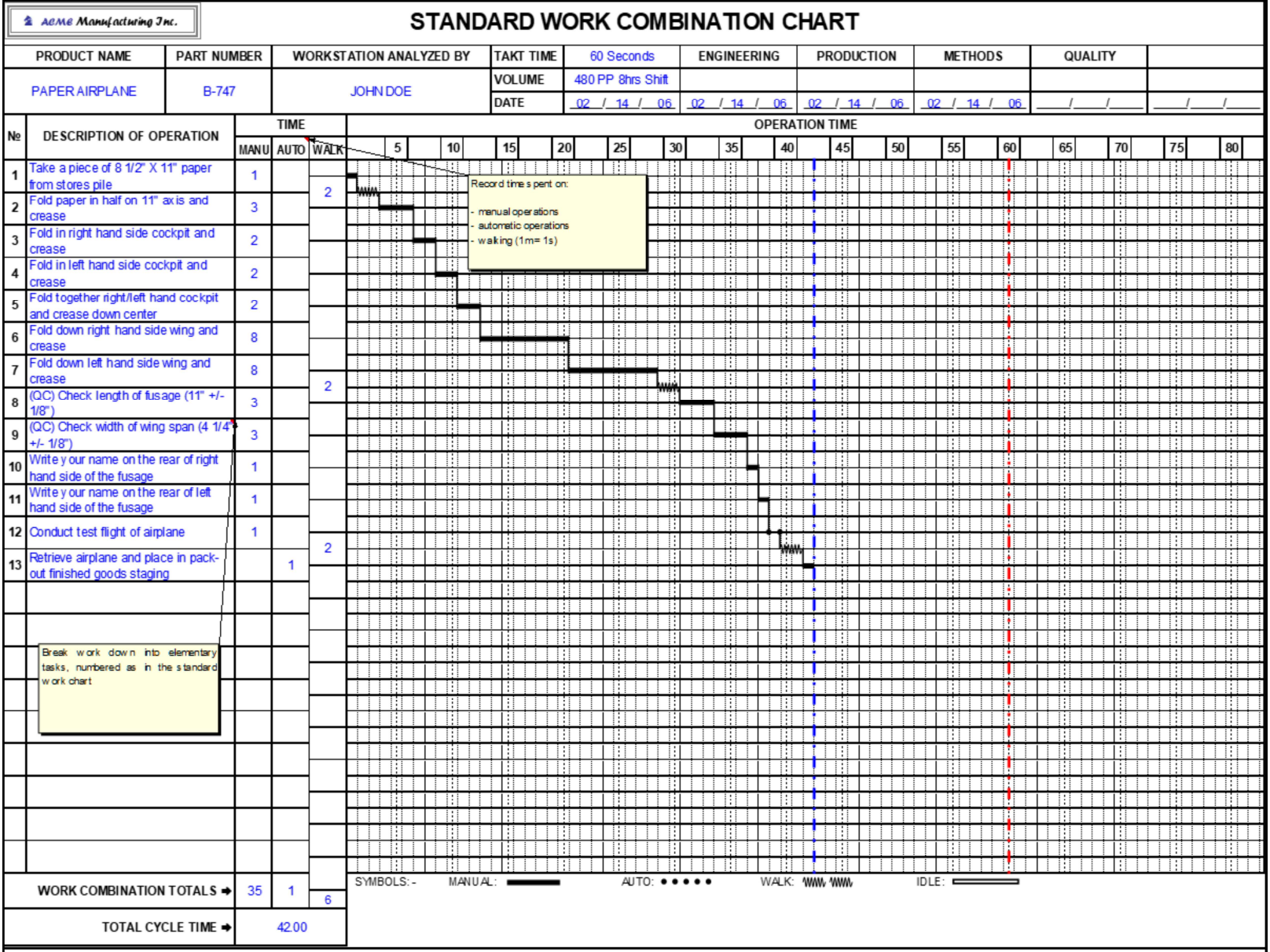
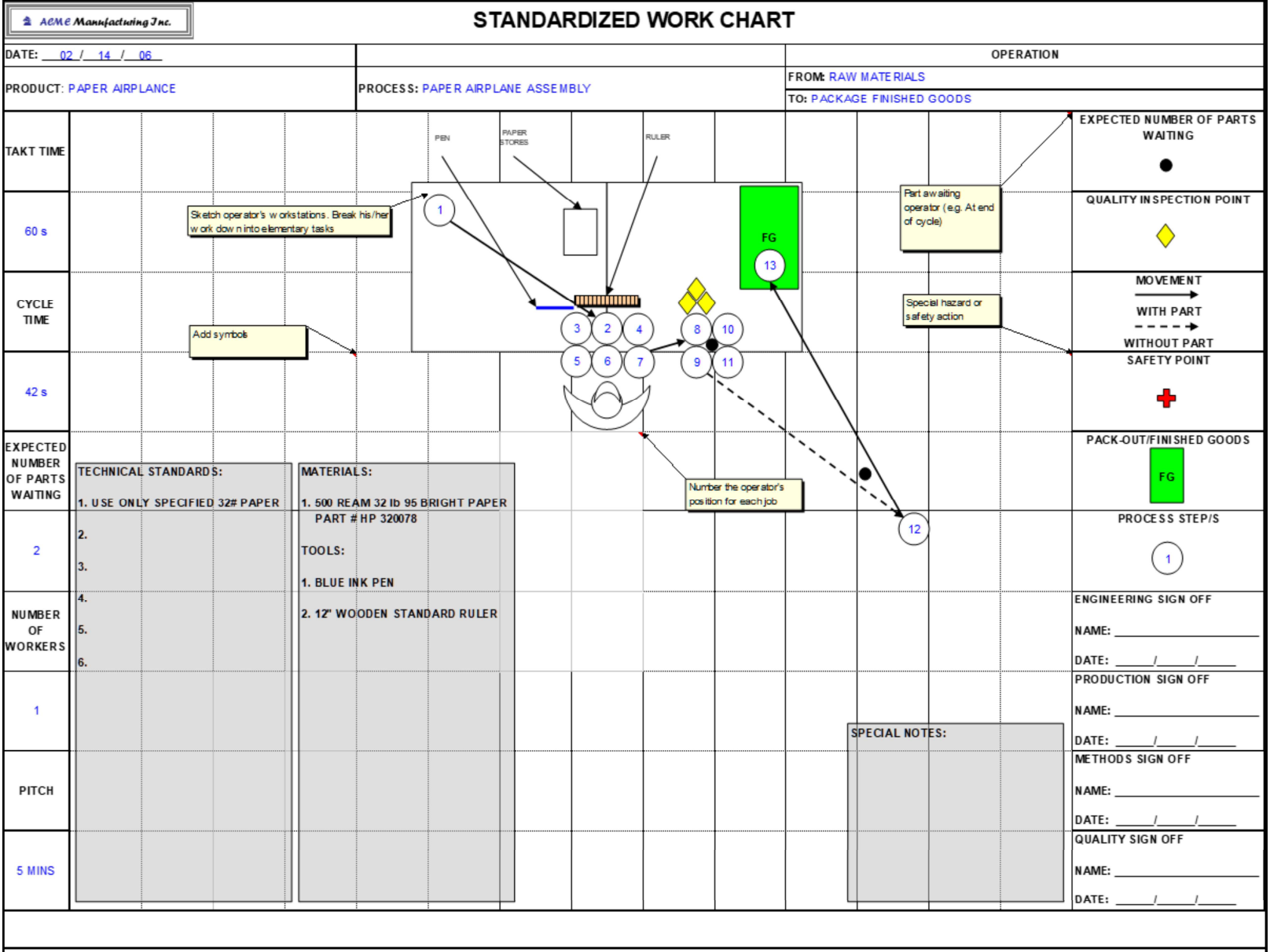


On a scale of 0 to 10 I would put myself at an 8.5 for my knowledge of MS Word, Excel, PowerPoint and Project in using them to create standard work templates, documents and reports.

These sides are just some examples that exemplify my adeptness in creating standard work documents and reports using Word, Excel PowerPoint and Project.

The first 7 examples I use to train people cycle time measurement by making paper airplanes.



Standard work chart.

STANDARD OPERATION SHEET

ACME Manufacturing Inc.

PLANT: GREENVILLE, SC	DOCUMENT NO.: F-K-G-001-002	DOCUMENT REVISON LEVEL: 003	CYCLE TIME: 42 SECONDS	PAGE NO.
PART NAME: PAPER AIRPLANCE	PART NO. B-747	LINE: 14-B ASSEMBLY HANGER	WORK STATION: FINAL ASSEMBY	1 OF 1

№	OPERATIONS	= SAFETY POINT	= QUALITY POINT	= HELPFUL TIP
1	TAKE A PIECE OF 8 1/2" X 11" PAPER FROM STORES PILE	WEAR REQUIRED PPEs TO PREVENT PAPER CUTS		
2	FOLD PAPER IN HALF ON THE 11" AXIS AND CREASE			
3	FOLD IN RIGHT HAND SIDE COCKPIT AND CREASE			
4	FOLD IN LEFT HAND SIDE COCKPIT AND CREASE			
5	FOLD TOGETHER RIGHT/LEFT HAND COCKPIT AND CREASE DOWN CENTER			
6	FOLD DOWN RIGHT HAND SIDE WING AND CREASE			
7	FOLD DOWN LEFT HAND SIDE WING AND CREASE			
8	(QC) CHECK LENGTH OF FUSAGE (11" +/- 1/8")		SEE SPECIFICATION SHEET LINE SIDE	
9	(QC) CHECK WIDTH OF WING SPAN (4 1/4" +/- 1/8")		SEE SPECIFICATION SHEET LINE SIDE	
10	WRITE YOUR NAME ON THE REAR OF RIGHT HAND SIDE OF THE FUSAGE			
11	WRITE YOUR NAME ON THE REAR OF LEFT HAND SIDE OF THE FUSAGE			
12	CONDUCT TEST FLIGHT OF AIRPLANCE			
13	RETRIEVE AIRPLANE AND PLACE IN PACK-OUT FINISHED GOODS STAGING			POSITION TAIL RUDDER 10 DEGREES LEFT AND THE PLANE WILL FLY BACK TO YOU AND SAVE YOU SOME WALKING TIME

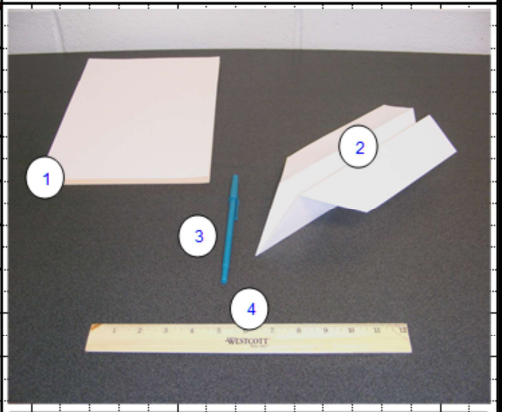
Safety point to be used if a potential hazard exits for employees

Quality self check point

Important comments can be written in bold or underlined

Use upper case and as large as possible fonts to allow operator to read from workstation

PICTURES/PHOTOS/DIAGRAMS/PICTOGRAMS/VISUAL WORK AIDS



1. PAPER STORES
2. FOLDING PROCESS
3. PEN
4. RULER

Operator who helped in setting up the standard operation

Reaction plan in the event of a non-conforming condition

ISSUED - NAME/SIGN/DATE/FUNCTION	CHECKED - NAME/SIGN/DATE/FUNCTION	APPROVED - NAME/SIGN/DATE/FUNCTION	SKILLED OPERATOR - NAME/SIGN/DATE	NON-CONFORMING PART REACTION PLAN
NAME: FRED WEBBERKING	NAME:	NAME:	NAME:	• PLACE DEFECT IN RED SCRAP BIN • RECORED ON PROCESS MONITOR SHEET • IF 3 IN A ROW FOR SAME DEFECT CALL SUPERVISOR
SIGN: Fred Webberking	SIGN:	SIGN:	SIGN:	
DATE: 02 / 14 / 06	DATE: ____/____/____	DATE: ____/____/____	DATE: ____/____/____	
FUNCTION: PROCESS ENGINEER	FUNCTION:	FUNCTION:	FUNCTION:	

Standard operations sheet.

ACME Manufacturing Inc.

MEASUREMENT OF CYCLE TIME

PRODUCT: PAPER AIRPLANE | WORK STATION: FOLDING | LAYOUT:

PROCESS: FINAL ASSEMBLY | ANALYZED BY: JOHN DOE

DATE: 02 / 14 / 06 | TIME: 11:30 AM

№	BASIC ACTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	MEAN	MIN	MAX	V %
1	Pickup paper	0	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
2	Fold # 1	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
3	Fold # 2	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
4	Rotate Fold # 3	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
5	Fold # 4	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
6	Flip and Fold # 5	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
7	Flip and Fold # 6	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
8	Measurement 2 Points	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
9	Measurement 1 Point	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
10	Validate/Name	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
11	Validate/Name	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
12	Final Test	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value				
13	Aside to Finished Goods	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock	Running Clock				
	MP:	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	Write Value	#DIV/0!	0	0	#DIV/0!
	CYCLE TIME	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	#VALUE!		#VALUE!	
	OPERATING NO WAITING TIME																						#VALUE!		

OBSERVATIONS

MP: measuring point | Data for cycle time diagram: [1]- mean cycle time with waiting; [2]- min. time for 20 cycles without waiting; [3]- max. for 20 cycles with waiting | Variance (%): V = ((M-m)/m) x 100

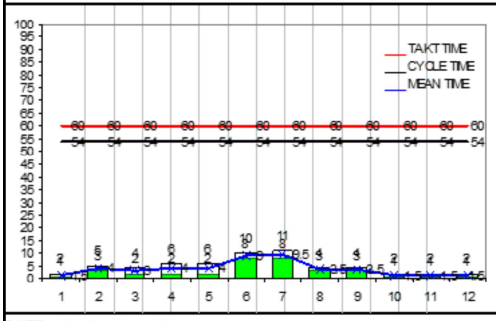
Measurement of cycle time sheet.

ACME Manufacturing Inc.

CYCLE TIME DIAGRAM

PAPER AIRPLANE INC. - GREENVILLE, SC JUNE 28, 2006

CURRENT STATE



DATE: 02 / 14 / 06

STATION	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
MIN	1	3	2	2	2	8	8	3	3	1	1	1	35
MEAN	1.5	4	3	4	4	9	9.5	3.5	3.5	1.5	1.5	1.5	46.5
MAX	2	5	4	6	6	10	11	4	4	2	2	2	58

OBSERVATIONS

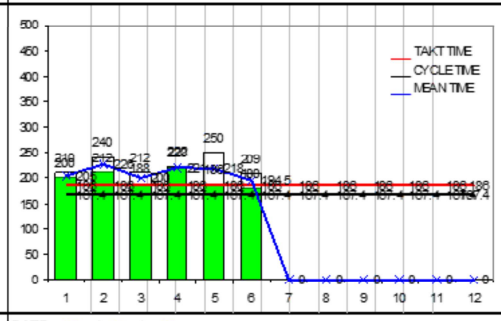
- # 1 Paper stores needs to be closer to point of use on table
- # 2 Steps 2 and 3 can be incorporated with each other
- # 3 Work station 1 can be moved closer to work station 2
- # 12 Walking wast can be reduced by returning the flight path

NUMBER OF PARTS/PERSON/HOUR: 60 PARTS 1 PERSON PER HOUR

REAL TIME/MINIMUN TIME RATIO ➡ 1.71

CT	54	54	54	54	54	54	54	54	54	54	54	54
TT	60	60	60	60	60	60	60	60	60	60	60	60

FUTURE STATE



DATE: 02 / 14 / 06

STATION	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
MIN	200	212	188	220	186	180							1186
MEAN	205	226	200	221	218	195	0	0	0	0	0	0	1264.5
MAX	210	240	212	222	250	209							1343

OBSERVATIONS

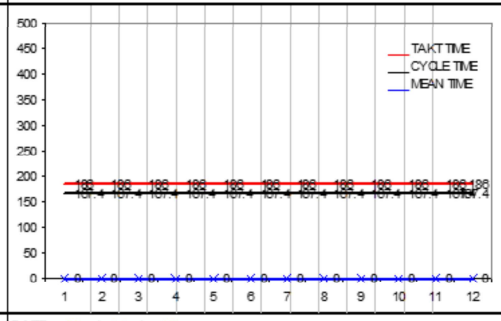
- # 1 Rebar (See PDCA worksheets)
- # 2 Manual Bender
- # 3 Welding
- # 4 Stud Welding
- # 5 Saw
- # 6 KRB (Automatic Bender)

NUMBER OF PARTS/PERSON/HOUR:

REAL TIME/MINIMUN TIME RATIO ➡ 0.16

CT	167	167	167	167	167	167	167	167	167	167	167	167
TT	186	186	186	186	186	186	186	186	186	186	186	186

NEXT OBJECTIVE



DATE: 02 / 14 / 06

STATION	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
MIN													0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX													0

OBSERVATIONS

- # 1 Rebar (See PDCA worksheets)
- # 2 Manual Bender
- # 3 Welding
- # 4 Stud Welding
- # 5 Saw
- # 6 KRB (Automatic Bender)

NUMBER OF PARTS/PERSON/HOUR:

REAL TIME/MINIMUN TIME RATIO ➡ #DIV/0!

CT	167	167	167	167	167	167	167	167	167	167	167	167
TT	186	186	186	186	186	186	186	186	186	186	186	186

Cycle time diagram.

ACME Manufacturing Inc.

TRACKING OF STANDARDIZED WORK

PLANT: GREENVILLE	SHIFT: 1ST	DEPT SHIFT MANAGR: JOHN PETAK	NUMBER OF OPERATORS ON LINE: 4
PRODUCT LINE: PAPER AIRPLANE	DATE: 02 / 14 / 06	CREW TEAM LEADER: JOHN WAYNE	

OPERATION №	DESCRIPTION	OPERATOR/S NAME	JUDGEMENT		COMMENTS	CORRECTIVE ACTION/IMPROVEMENT IDEAS
			YES	NO		
1	TAKE PAPER	John Doe		✓	Licking fingers to pick up paper - possible contamination of product	Ask for maintenance help to install postage stamp finger moister sponge
2	FOLD ON 11" AXIS	Jane Doe	✓			
3	FOLD RIGHT HAND SIDE COCKPIT	John Doe	✓			
4	FOLD LEFT HAND SIDE COCKPIT	John Doe		✓	Not being properly folded in to center line	Install hold jig and re-write work instructions and re-train operator
5	FOLD RIGHT/LEFT HAND SIDE COCKPIT TOGETHER	John Doe	✓			
6	FOLD RIGHT WING	Jane Doe	✓			
7	FOLD LEFT WING	John Doe	✓			
8	QUALITY CHECK POINT FUSAGE	John Doe	✓			
9	QUALITY CHECK POINT WING SPAN	John Doe		✓	Checking taking too long	Conduct 5 Whys analysis
10	WRITE NAME REAR RIGHT HAND FUSAGE	John Doe	✓			
11	WRITE NAME REAR LEFT HAND FUSAGE	John Doe	✓			
12	CONDUCT TEST FLIGHT	John Doe	✓			
13	PACK-OUT TO FINISHED GOODS STAGING AREA	John Doe		✓	Finished goods not being picked up to maintain pitch	Conduct 5 Whys analysis with material handling group

Tracking of standard work audit sheet.

ACME Manufacturing Inc.

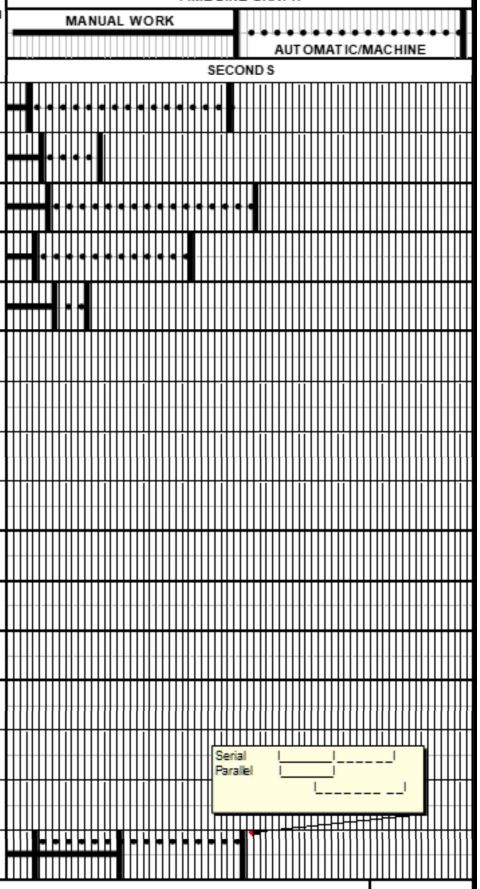
PART PRODUCTION CAPACITY WORKTABLE

PRODUCT NAME: GREENVILLE | ANALYZED BY: JOHN PETAK

PART NUMBER: B-747 | DATE: 02 / 14 / 06

№	DESCRIPTION OF OPERATION	MACHINE №	MANUAL OPERTION TIME (A)	BASIC TIMES: AUTO MACHNE TIME (B)	BASIC TIMES: COMPLETION TIME (C) =A+B	TOOLS & MATERIALS: RETOOLING AMOUNT (D)	TOOLS & MATERIALS: RETOOLING TIME (E)	PER UNIT RETOOLING TIME (F)=(E)/(D)	TOTAL TIME PER UNIT (G)=C+F	PRODUCTION CAPACITY (H)/(G)
			SECONDS	SECONDS	SECONDS		SECONDS			
1	Pick up raw materials	A01	4	35	39	400	130	0.3	39.3	717
2	Gear teeth cutting	A01	6	15	21	1000	120	0.1	21.1	1335
3	Gear teeth sutace finishing	A02	7	38	45	400	190	0.5	45.5	620
4	Forward gear surface finishing	A03	5	28	33	400	150	0.4	33.4	845
5	Reverse gear surface finishing	A04	8	5	13	400	150	0.4	13.4	2108
6	Pin width measurement	B01			0			#DIV/0!	#DIV/0!	#DIV/0!
7	Store finished work piece	B02			0			#DIV/0!	#DIV/0!	#DIV/0!
8					0			#DIV/0!	#DIV/0!	#DIV/0!
9					0			#DIV/0!	#DIV/0!	#DIV/0!
10					0			#DIV/0!	#DIV/0!	#DIV/0!
11					0			#DIV/0!	#DIV/0!	#DIV/0!
12					0			#DIV/0!	#DIV/0!	#DIV/0!
13					0			#DIV/0!	#DIV/0!	#DIV/0!
					0			#DIV/0!	#DIV/0!	#DIV/0!
					0			#DIV/0!	#DIV/0!	#DIV/0!
					0			#DIV/0!	#DIV/0!	#DIV/0!
		TOTALS ➡	30	121	151				DAILY OPERATION TIME IN SECONDS➡	28200

TIME LINE GRAPH



TIME CONVERTERS					
HOURS TO MINUTES	9:00:00	HOURS	=	#NAME?	MINUTES
HOURS TO SECONDS		HOURS	=	#NAME?	SECONDS
MINUTES TO SEONDS		MINUTES	=	#NAME?	SECONDS

Part capacity planner work sheet.

ADAMS Manufacturing Inc. OP-GR-FT2-JB 000.00 Name of Standard Work Job Breakdown Here - Dated 00/00/00

STANDARD WORK JOB BREAKDOWN PROCEDURE (CONCISE DESCRIPTION OF STANDARD WORK JOB)

MACHINE: N/A OR USER DEFINABLE	**PROCESS:** N/A OR USER DEFINABLE
CHANGE FROM: N/A OR USER DEFINABLE	**CHANGE TO:** N/A OR USER DEFINABLE
CHANGEOVER TIME: N/A OR USER DEFINABLE	**FREQUENCY:** N/A OR USER DEFINABLE
! ▲ ONLY PERSONS TRAINED HOW TO DO THESE TASKS ARE TO CARRY OUT TASKS ▲ !	
⬇ MATERIALS/TOOLS/PPEs REQUIRED FOR TASK ⬇	**⬇ MATERIALS/TOOLS/PPEs REQUIRED FOR TASK ⬇**
MATERIALS: N/A OR LIST MATERIALS NEEDED **TOOLS:** N/A OR LIST TOOLS NEEDED **PPEs:** ▲ FOLLOW ALL APPLICABLE JSAs ▲ FOLLOW ALL APPLICABLE 'LOTO' AND MSDS	**MATERIALS:** N/A OR LIST MATERIALS NEEDED **TOOLS:** N/A OR LIST TOOLS NEEDED **PPEs:** ▲ FOLLOW ALL APPLICABLE JSAs ▲ FOLLOW ALL APPLICABLE 'LOTO' AND MSDS
PURPOSE: N/A OR USER DEFINABLE OR EXPLAIN WHY THE STANDARD IS IN EXISTENCE	
⬇ SERIAL WORK INSTRUCTIONS ⬇	**⬇ PARALLEL WORK INSTRUCTIONS ⬇**
▲ = SAFETY POINT ◆ = QUALITY POINT = PPEs REQUIRED = TOOLS REQUIRED ⓘ = CRITICAL NOTE	

№	MAJOR STEP	KEY POINT	REASON FOR KEY POINT	PHOTOGRAPHIC DESCRIPTION
1	USE ARIEL SIZE 8 BOLD CAPITALS FOR READABILITY & CHARACTER SPACING.			IF NECESSARY INSERT A DESCRIPTIVE PHOTOGRAPH OF THE ACTION HERE TO GIVE VISUAL UNDERSTANDING
2	MAJOR STEPS (TASKS) NEEDED TO BE AN ELEMENT OF WORK SUFFICIENT TO ADVANCE JOB.	▲ SAFETY POINT: INJURY AVOIDANCE. ◆ QUALITY POINT: DEFECT AVOIDANCE. ⓘ CRITICAL NOTE: ADVANCED DETAIL	SUPPORTING REASONS WHY YOU WANT TO DO IT THAT WAY	
3	E.G. START CAR ENGINE	▲ ENSURE THE CAR IS IN PARK OR NEUTRAL AND THE PARKING BRAKE IS ON AND FOOT BRAKE IS APPLIED	PREVENT THE CAR DRIVING FORWARD	
4	▲ ABC	◆ ABC	ⓘ ABC	
5	ABC	ABC		
6				
7				
8				
9				
12				
13				
14				
15				
16				
17				
18				
19				
20				

TASK COMPLETE

This is a MS Word template of my own design for a work content instruction for standard work job breakdown.

STANDARD WORK JOB BREAKDOWN PROCEDURE
(LINE START UP FROM EXTRUDER TO OVEN)

MACHINE: LINES 6, 7, 8 & 9	**PROCESS:** CORRECT START UP
CHANGE FROM: N/A	**CHANGE TO:** N/A
CHANGEOVER TIME: N/A	**FREQUENCY:** EACH TIME OF START UP

! ▲ ONLY PERSONS TRAINED HOW TO DO THESE TASKS ARE TO CARRY OUT TASKS ▲ !

⬇ MATERIALS/TOOLS/PPEs REQUIRED FOR TASK ⬇

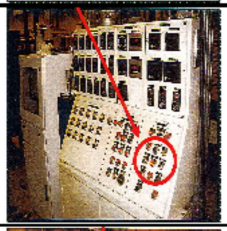
MATERIALS: SMALL BUCKET OF WATER

TOOLS: BRASS PUTTY KNIFE, STANLEY UTILITY KNIVES (MODEL 10-788 OR 10-122A), AT LEASE A 12' TAPE MEASURE, HOE, 8' PLATFORM STEP LADDER

PPEs: ▲ FOLLOW ALL APPLICABLE JSAs ▲ FOLLOW ALL APPLICABLE 'LOTO' PROCEDURES, HOT ZONE PPEs

PURPOSE: TO ENSURE PROPER START UP OF LINE THROUGH TO THE EXTRUDER IS OBSERVED

▲ = SAFETY POINT ◆ = QUALITY POINT = PPEs REQUIRED = TOOLS REQUIRED ⓘ = CRITICAL NOTE

№	MAJOR STEP	KEY POINT	REASON FOR KEY POINT	PHOTOGRAPHIC DESCRIPTION
	CAUTION! BEFORE YOU START MAKE SURE UTILITIES ARE CORRECT (POWER, WATER & AIR), YOU HAVE THE CORRECT PPEs, YOU HAVE ALL THE EQUIPMENT YOU WILL NEED IN PLACE.			
	⬇ SERIAL WORK INSTRUCTIONS ⬇			
1	MOVE ROLL STAND OUT AWAY FROM DIE.			
2	CLOSE DRAW AND CHROME ROLLS ONCE THE SHEET IS THREADED	▲ WATCH OUT FOR OTHER PERSONNEL AROUND AREA. MAKE SURE HANDS AND BODY PARTS ARE OUT OF THE WAY BEFORE CLOSING CHROME ROLLS.	▲ PINCH AND CRUSH POINTS	
3	PUT WINDER IN GEAR			

Standard work of starting up a process correctly and safely.

STANDARD WORK TOOL CHANGEOVER PREPARATION CHECKLIST

MACHINE: DC-DD-02	**PROCESS:** DC-DD-02
CHANGE FROM: DC-1280-R/H	**CHANGE TO:** DC-1281-L/H
!? ONLY PERSONS TRAINED HOW TO DO THESE TASKS ARE TO CARRY OUT TASKS? !	
🛠 TOOLS/MATERIALS/PPEs REQUIRED: **TOOLS:** **MATERAILS:** **PPEs:** ⓘFOLLOW ALL APPLICABLE JSAs ⓘFOLLOW ALL 'LOTO' PROCEDURES	**🛠 TOOLS/MATERIALS/PPEs REQUIRED:** **TOOLS:** **MATERAILS:** **PPEs:** ⓘFOLLOW ALL APPLICABLE JSAs ⓘFOLLOW ALL 'LOTO' PROCEDURES

№	⬇ CHECKLIST FOR MAINTENANCE TECH ⬇	⬇ CHECKLIST FOR MACHINE OPERATOR ⬇
1	ENSURE FORK LIFT TRUCK IS AVAILABLE AND HAS ENOUGH PROPANE GAS FOR THE TOOL CHANGE	INFORM (ANDON) MAINTENANCE DEPARTMENT OF TOOL CHANGE AT LEAST 30 MINUTES PRIOR TO LAST CURRENT PART TYPE
2	ASSEMBLE SLING, SPECIAL TOOLS AND PPEs FOR TOOL CHANGE	ASSEMBLE AND LOAD INTO SHUTTLE MAGAZINE REPLENISHMENT OR NEW PART TYPE AND/OR SIZE OF HEAVY LAYER
3	PRE-SET FORK LIFT TRUCK FORKS TO A DISTANCE OF 36" APART	ASSEMBLE AND STAGE CHANGE OF CARPET OR CARPET COLOR ROLL TO MACHINE FEED ROLLER
4	CHECK IN-GOING TOOL FOR UP-TO-DATE REPAIRS HAVE BEEN CARRIED OUT	ENSURE THAT THERE ARE NO WIP RACKS BLOCKING ACCESS TO TOOL STORAGE RACKS FOR IN-GOING TOOL
5	ENSURE THE IN-GOING TOOL IN ON PRE-HEAT AND WILL BE AT 270º F AT TIME	ENSURE THAT PLC RECEIPE IS AVAILABLE IS OF THE CORRECT TYPE TO THE PART NUMBER TOOL AND IS THE MOST UP-TO-DATE VERSION
6	DOUBLE CHECK OPERATIONS WORK ORDER FOR CORRECT PART NUMBER TO IN-GOING TOOL	CARRY OUT ALL CURRENT RUN CLERICAL OPERATIONS INTO SAP
7	POSITION TOOL CHANGEOVER CART NEXT TO PRESS FOR OUT-GOING TOOL	ASSEMBLE NEW PART TYPE WIP RACKS
8	POSITION TOOL CHANGEOVER CART NEXT TO PRE-HEAT STATION FOR IN-GOING TOOL	ENSURE THAT ALL HAND/POWER TOOLS REQUIRED FOR TOOL CHANGE ARE AVAILABLE ON TOOL CHANGEOVER PEG BOARD
9	ENSURE THAT QUICK CHANGE ELECTRIC MOVER HAS A FULL CHARGE ON ITS BATTERY	PULL TWO SKIDS OF 582s CARDBOARD BOXES
10	ENSURE THAT ALL HAND/POWER TOOLS REQUIRED FOR TOOL CHANGEOVER ARE AVAILABLE ON TOOL CHANGEOVER PEGBOARD	

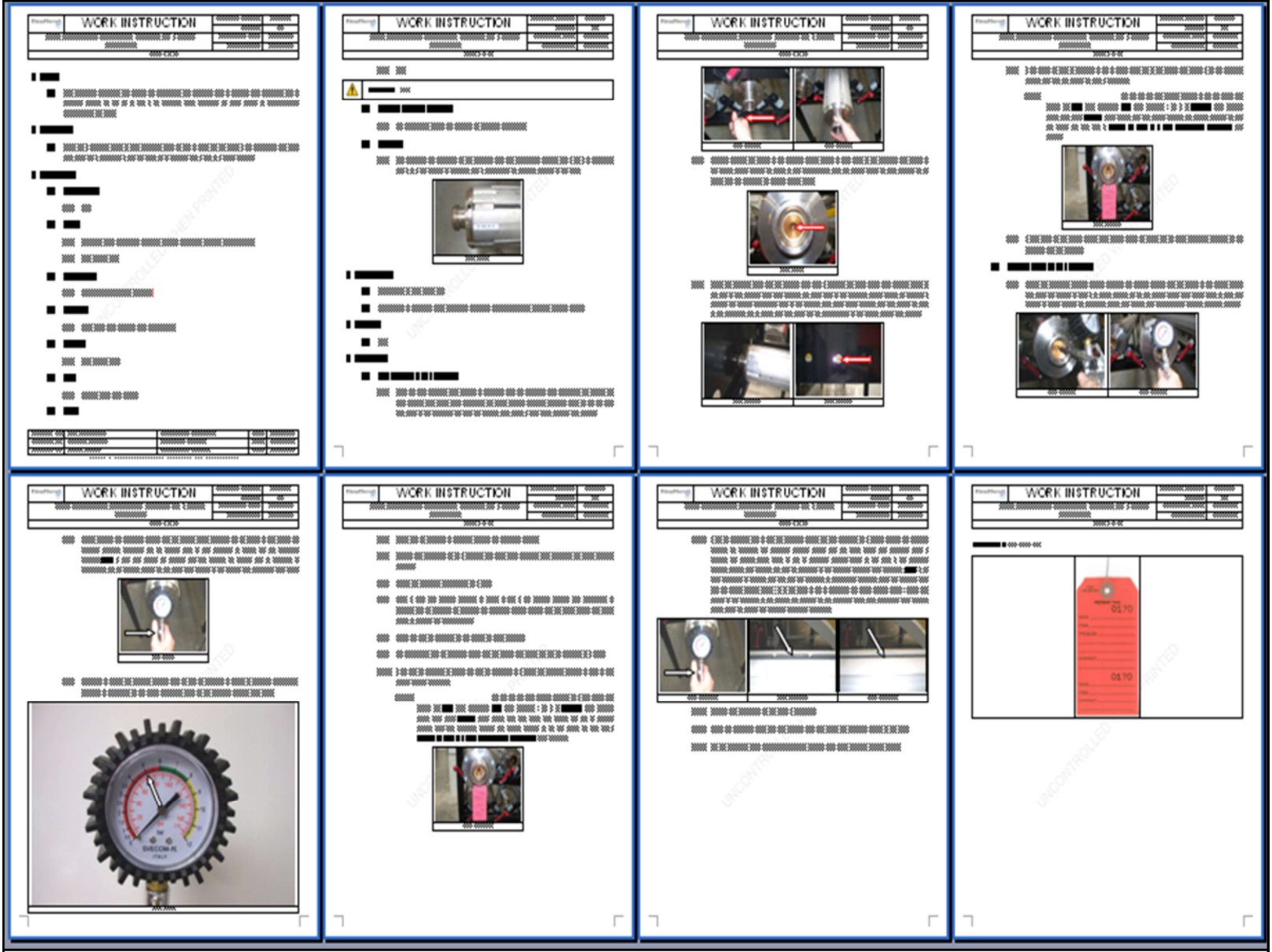
SMED preparation checklist sheet.

STANDARD WORK TOOL CHANGEOVER PROCEDURE

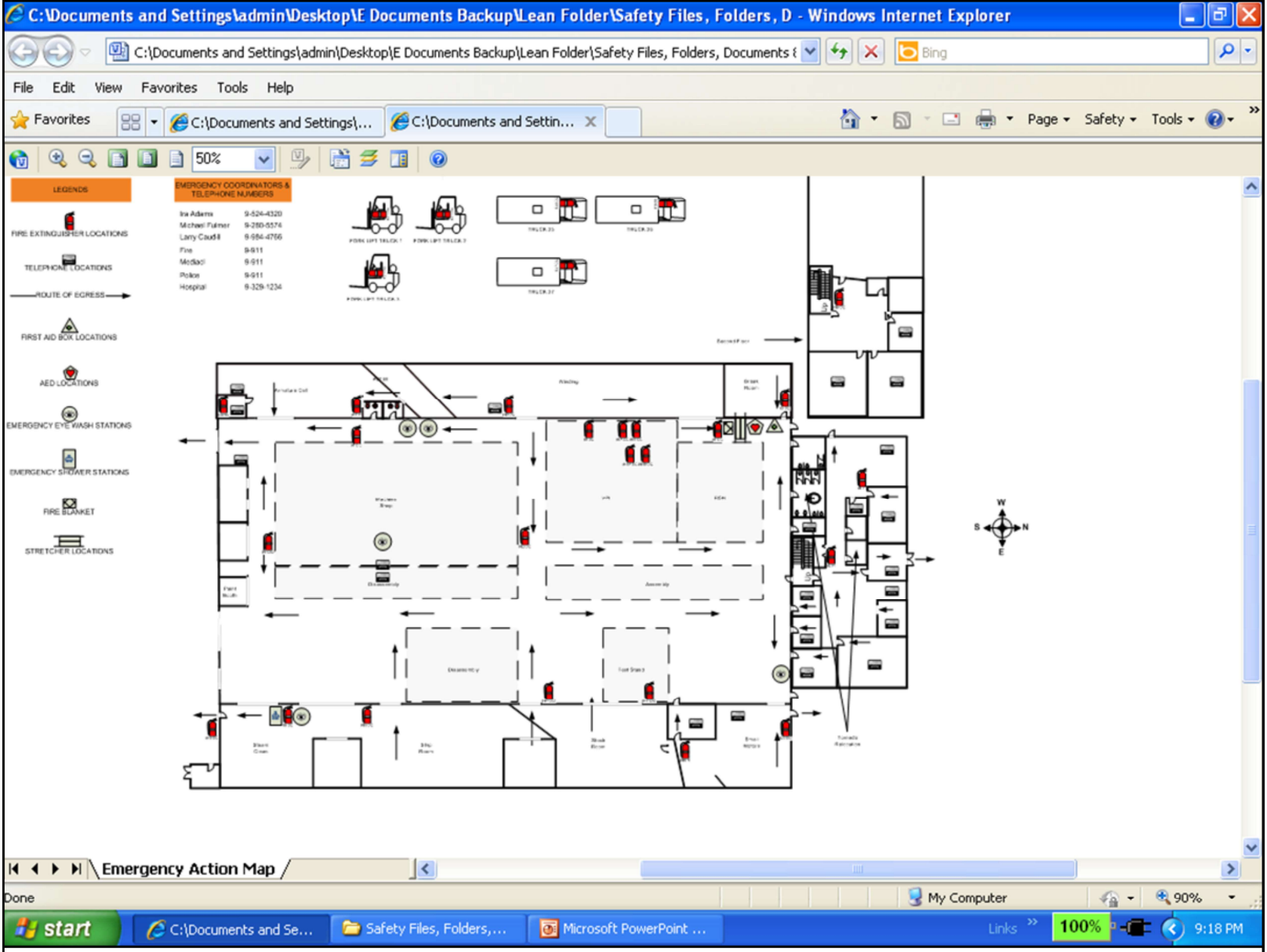
MACHINE: ALL LITTLE DAVID TAPPERS	**PROCESS:** BOX TAPE SEALER
CHANGE FROM: PREVIOUS BOX SIZE	**CHANGE TO:** DESIRED BOX SIZE
CHANGEOVER TIME: 5 MINUTES	
! ▲ ONLY PERSONS TRAINED HOW TO DO THESE TASKS ARE TO CARRY OUT TASKS ▲ !	
🛠 TOOLS/MATERIALS/PPEs REQUIRED: **TOOLS:** NO TOOLS REQUIRED FOR THIS SET-UP **MATERIALS:** NONE NEEDED **PPEs:** NONE NEEDED ⓘ FOLLOW ALL APPICABLE JSAs ⓘ AVOID CONTACT WITH SERRATED KNIFE WHEN HANDLING TAPE HEAD.	**🛠 TOOLS/MATERIALS/PPEs REQUIRED:** **TOOLS:** NO TOOLS REQUIRED FOR THIS SET-UP **MATERIALS:** SAMPLE BOX OF PROPER DIMENSIONS IS REQUIRED FOR SET-UP **PPEs:** NONE NEEDED ⓘ FOLLOW ALL APPICABLE JSAs ⓘ AVOID CONTACT WITH SERRATED KNIFE WHEN HANDLING TAPE HEAD.

№	🡻 🕮 SERIAL WORK INSTRUCTIONS 🕮 🡻	🡻 🕮 PARALLEL WORK INSTRUCTIONS 🕮 🡻
1	UNLOCK SIDE GUIDE RAILS BY TURNING LOCKING KNOB COUNTER CLOCKWISE  PIC 1	BUILD PROPER SIZE SAMPLE BOX TO BE USED DURING SET-UP, FOLD ALL FLAPS TOP AND BOTTOM CLOSED
2	MANUALLY MOVE SIDE GUIDE RAILS TO A POSITION WIDER THAN THE SAMPLE BOX AND LEAVE RAILS UNLOCKED.	
3	LOOSEN TAPE HEAD LOCK BY TURNING HANDWHEEL COUNTER CLOCKWISE.  PIC 2	
4	MOVE TAPE HEAD TO A POSITION HIGHER THAN SAMPLE BOX HEIGHT. (WITH HEAD UNLOCKED; WIGGLE TAPE HEAD SIDE TO SIDE WHILE	

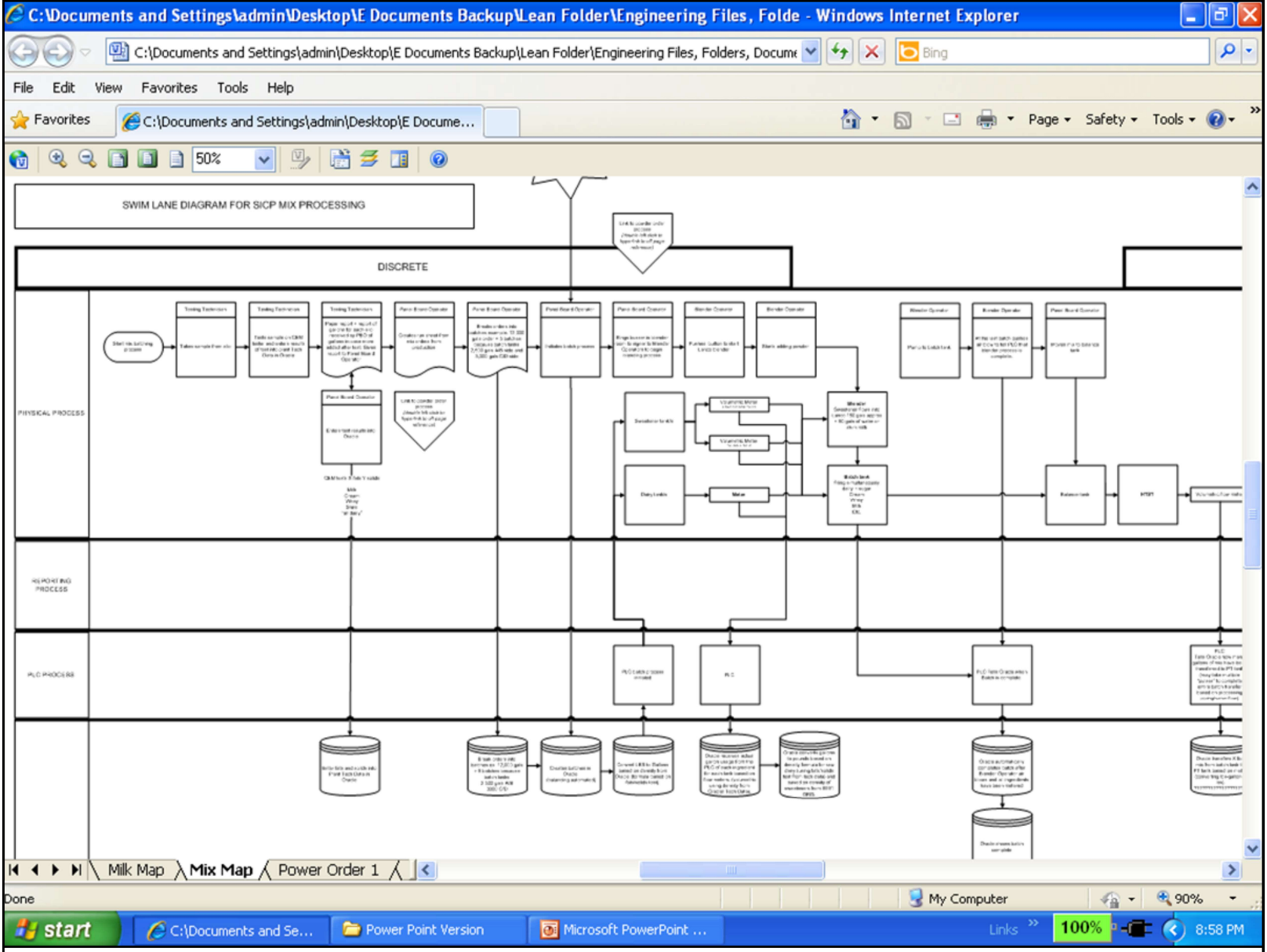
SMED tool changeover procedure standard work document.



In the name of continuous improvement I created in MS Word this work instruction using the ‘outline’ format method calling out and detailing the work instruction’s scope, purpose, definitions, references, related forms, documentation, forms, frequency, Materials, tools, responsibility, safety, personal protective equipment, guidelines, record keeping, attachments, appendix and finally the procedures of the tasks in the work instruction.

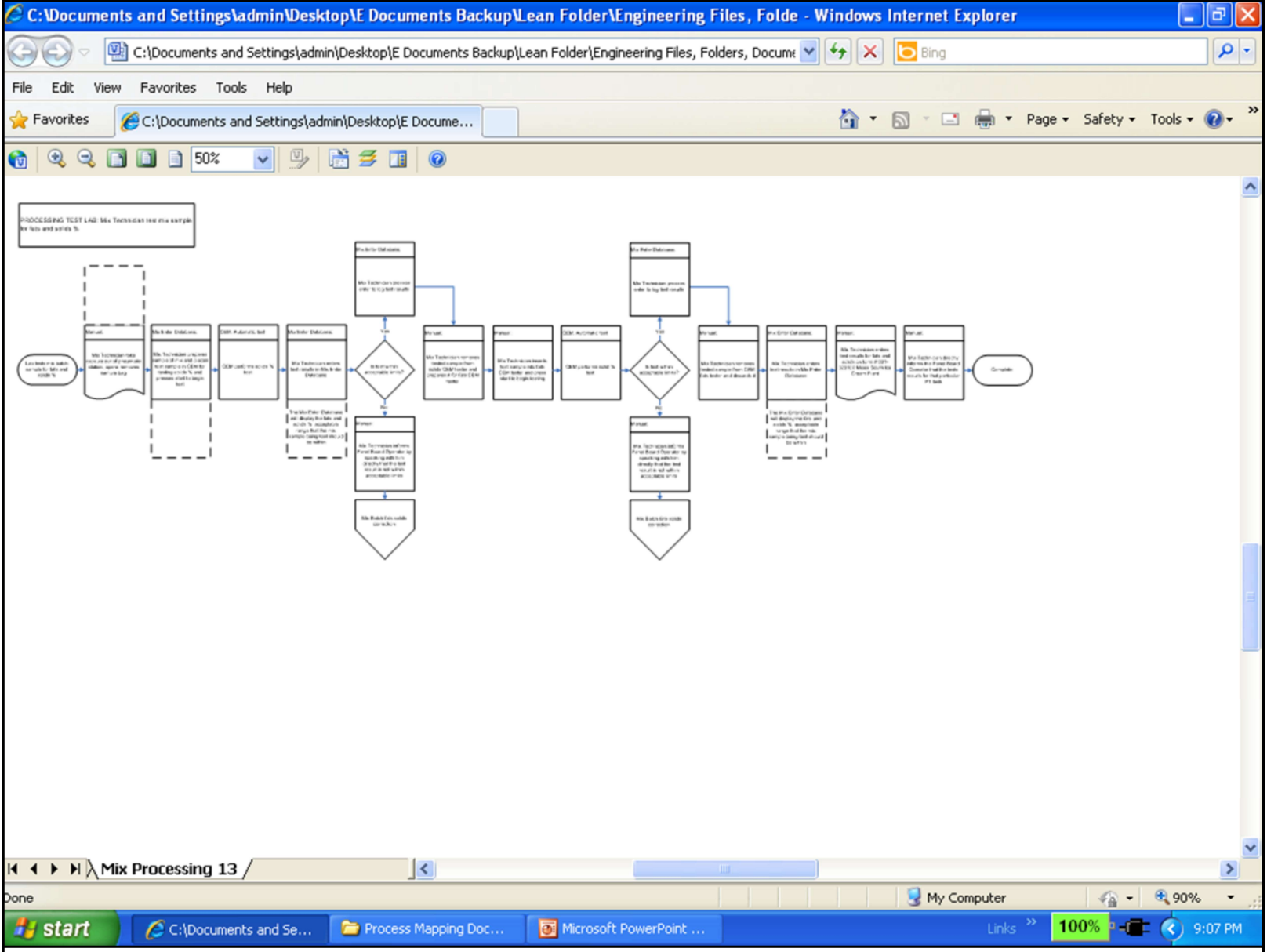


I have too much fun with MS Visio. I use Visio when I need greater detail in dimensioning and scaled measurements like this emergency action and evacuation map I created for one of my employers. I used a measurement wheel for the exterior walls, tape measurement for the insides.



Again with Visio there's a lot more flexibility and functionality than what you have available to you when working on certain projects. To understand a process's interconnectivity with other resources, man, machine, computerization, what's automatic, what's done manually it's a good idea map it out using swimming lanes. Its visual communication helps to understand how everything pieces together and sometimes needlessly complicated.

I printed this swimming lanes map out on an engineering plotter 3 feet wide by 12 feet long and pinned it up on the wall, something that big stirs a lot of interest in the group viewing it.



I used Visio again to construct this block diagram for a PFMEA.

This picture is of a 10’ feet long by 5’ feet wide magnetic whiteboard. They maybe a little on the expensive side but they are versatile. I used this board time and time again for different projects. This project was for training improvement of line operators.

All the notices, labels, documents holders and headers - which I made - are affixed to the board using magnetic tape so, changing to different projects and using the board as a notice board, storyboard or dashboard was a snap to do. The only thing that was not magnetic was the boarder line which I used black electrical insulation tape which was easy to apply and remove.