



IMPAX TSS Screens & Features - Data

The IMPAX Time Saver System provides many features designed to increase productivity, save time, and help your shop run more efficiently. TSS monitors automatically collect information on production totals, machine efficiency, and accumulated machine uptime and downtime. All occurrences of downtime, and the corresponding reasons, are tracked and archived. This document gives an overview of the TSS's main features.

Uptime/Downtime Minutes

Tracks daily uptime and downtime minutes for each shift

- Automatically tracks uptime/downtime data, resulting in a true picture of machine usage, instead of estimates
- Identifies previously-unreported lost time or idle periods
- Provides timely and accurate data for productivity initiatives

RUN		DAILY UPTIME & DOWNTIME				12:00 PM 01/01/06	
SHIFT 1	UP 0 30% 100 150	DOWN 0 6% 100 30					
SHIFT 2	0 0% 100	0 0% 100					
SHIFT 3	0 0% 100	0 0% 100					
TOTAL	150 30% 100	30 6% 100					
START MENU		DATA		COUNTERS		USER MENU	

64 Downtime Reasons

Tracks daily occurrences and durations for each downtime reason

- Tracks reasons for downtime electronically, eliminating the need for operator self-reporting or data entry
- Identifies part, tooling, material, and operator issues
- Provides cost-justification for upgrades and other corrective actions
- Helps focus managers and operators on problems causing the most downtime

STOP	RESPONDED		DOWNTIME MENU
MACHINE SETUP	SMASHUP	SAMPLES	MEETING/ TRAINING
MAINTENANCE	BREAKDOWN	FEED PROBLEMS	WAITING FOR OPERATOR
PART CHANGE	TOOL ADJUST	MATERIAL QUALITY	SCHEDULED SHUTDOWN
ORDER COMPLETE	TOOL CHANGE	WAITING FOR MATERIAL	QC IN SPECTION
< MORE REASONS	PRESS TO ENTER ADDITIONAL REASON		MORE > REASONS

Downtime Occurrence Log

Tracks each downtime occurrence's date and time, response time, total downtime, and reason

- Identifies common time-consuming problems, so that bottleneck issues can be addressed
- Identifies insufficient manpower situations, by tracking operator response time
- Provides operators and managers with information of recent problems or situations

RUNNING		DOWNTIME LOG OCCURRENCES 1-4				03:14 PM 02/08/12	
DATE	DT START	DT END	RT MIN	DT MIN	REASON		
0207	1102	1105	0	3	MACHINE		
0207	1026	1027	0	1	WAITING FOR MATERIAL		
0207	1025	1026	1	2	FEED PROBLEMS		
0207	1019	1023	2	3	MACHINE ADJUSTMENT		
<		DATA		COUNTERS		>	



Downtime Events & Minutes

Tracks the number of daily occurrences and total minutes for each downtime reason

- Helps managers and operators identify their most time consuming downtime reasons
- Helps managers and operators identify their most common downtime reasons
- Provides accurate times for each downtime reason
- Shows manager and operators where specific improvement efforts could be spent

RUN	DAILY DT EVENTS & MINUTES 1		12:00 PM 01/01/06		
	EVENTS	MINS		EVENTS	MINS
MACHINE SETUP	2	42	SMASHUP	0	0
MAINTENANCE	1	34	BREAKDOWN	1	97
PART CHANGE	0	0	TOOL ADJUST	1	6
ORDER COMPLETE	4	13	TOOL CHANGE	2	19
<		DATA	COUNTERS	>	

Efficiencies & OEE

Tracks real time efficiencies based on production, feed, and time

- Helps operators reach a productivity target, and know when a process is running poorly
- Identifies machine problems in real-time, resulting in increased productivity
- Identifies feed issues on certain machines
- Shows productivity loss due to speed, feed, or downtime
- Motivates operators to work more efficiently

RUNNING	SHIFT OEE: OVERALL EQUIPMENT EFFECTIVENESS	03:24 PM 02/08/12			
SHIFT AVAILABILITY PERCENT		SHIFT PERFORMANCE PERCENT			
98.6%		76.9%			
SHIFT QUALITY PERCENT		SHIFT OEE			
99.8%		75.6%			
<		DATA	COUNTERS	>	

Part and Operator Information

Tracks job number, part number, operator ID, and scrap

- Provides optimum running rates to the operator along with other useful information
- Provides up to 4 pending part jobs for the operator to begin, saving data entry time
- Tracks uptime and downtime by part, job, and operator
- Tracks response times by operator
- Tracks production counts and efficiencies by part, by job, and by operator

RUN	PART AND OPERATOR HISTORY MENU PAGE 1		12:00 PM 01/01/06	
PART BUTTON	PART NUMBER	START TIME	START DATE	
	OPERATOR ID	END TIME	END DATE	
CURRENT SESSION	PART B OPER 2	12:30 (STILL ACTIVE)	1 / 1	
1ST PRIOR SESSION	PART A OPER 2	12:00 12:30	1 / 1	
2ND PRIOR SESSION	PART A OPER 1	10:05 12:00	1 / 1	
<		HISTORY MENU	>	

Pending Parts

- Identifies upcoming parts to the operator
- Eliminates operator entry of most job information
- Provides optimum machine speeds for the part
- Can be directly loaded from a manufacturing system or entered by the production scheduler

RUN	PENDING PART 1 DETAILS		12:00 PM 01/01/06	
JOB NUMBER	JOB 123	IDEAL RPM	60	
PART NUMBER	PART ABC	IDEAL PPM	60	
PARTS PER CYCLE	1	PRESS BUTTON BELOW TO START THIS PART		
ORDER QUANTITY	5000	START PART		
PENDING PARTS MENU				



IMPAX TSS Screens & Features - Counts

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Production Counts

Tracks daily production, cycles, and scrap counts for each shift and the day's total

- Provides true production counts without weighing, hand-counting, or other human intervention
- Automatically provides accurate counts for each shift and eliminates tedious count paperwork
- Parts made during a particular shift are always credited to that shift's counts for the machine and session

STOPPED 2 MINS	DAILY PRODUCTION COUNTS		03:21 PM 02/08/12
SHIFT 1	PRODUCTION	CYCLES	SCRAP
DAILY COUNT	28803	28803	0
SHIFT 2			
DAILY COUNT	26281	26281	42
SHIFT 3			
DAILY COUNT	0	0	0
TOTAL DAILY COUNT	55084	55084	42
START MENU	DATA	COUNTERS	USER MENU

Order Counter

Tracks order quantity, parts made, parts-to-go, minutes remaining, RPM, and PPM

- Eliminates job overruns with machine stop relay
- Encourages operators to prepare upcoming jobs in advance, reducing downtime between jobs
- Provides accurate machine speed and shows when a machine is running too slow or fast
- Provides accurate cycle and part rates and shows rate inconsistencies to the operator
- Provides managers with expected time of job completion

RUNNING	ORDER COUNTERS ORDER QUANTITY REACHED		03:11 PM 02/08/12
ORDER QUANTITY	100000	100% -100 -75 -50 -25 0 TIME LEFT 0 MINS	JOB NUMBER Miami
PARTS MADE	101491		PART NUMBER HS 97
PARTS TO GO	0		RPM 60
TIME SINCE LAST DOWN	1686 MINS		PPM 60
START MENU	DATA	COUNTERS	USER MENU

Tool Counters

Tracks the planned cycles, actual cycles, remaining cycles for each of nine tools

- Reveal each tool's true life
- Inform the operator of expected life of each tool
- Encourages the use of each tool to its full life
- Proves cost justifications for tooling purchases, repairs, and design changes
- Alerts tool room when new tools are needed at machines and alerts operator when to change tool

RUNNING	TOOL COUNTERS 1			05:23 PM 02/08/12
	Station 1	Station 2	Station 3	
CYCLES PLANNED	120000	125000	115000	
CYCLES USED	116747	116737	116727	
CYCLES REMAINING	3254	8264	COUNT REACHED	
<	DATA	COUNTERS	>	



Maintenance Counters

Tracks the planned cycles, actual cycles, remaining cycles for each of nine maintenance items

- Alerts operators and maintenance personnel to upcoming service issues
- Allows PM and service to be scheduled when they are needed, not on a weekly/monthly schedule that doesn't reflect machine usage
- Encourages the correct order rate and parts needed in spare parts inventories
- Allows the best use of maintenance personnel

RUNNING	MAINTENANCE COUNTERS 1		05:10 PM 02/08/12
	oil	filter	Belts
CYCLES PLANNED	500000	500000	5000000
CYCLES USED	115922	115913	660927
CYCLES REMAINING	384078	384087	4339073
	DATA	COUNTERS	>

Part Scrap Counter

- Identifies material waste
- Tracks scrap generation by job, identifying parts that cause excessive waste
- Justifies process improvement to reduce scrap
- Is used in OEE calculations

RUNNING	SCRAP ENTRY		03:16 PM 02/08/12
JOB NUMBER	Miami	PART NUMBER	HS 97
CURRENT JOB SCRAP	62	CURRENT SHIFT SCRAP	42
ADD SCRAP:			
ENTER SCRAP TO ADD, THEN PRESS BUTTON	0	PRESS TO ADD SCRAP	
USER MENU			

Machine data by day, week, and month

Tracks counts, uptime, and downtime for each day, week, and month historically

- Tracks historical data and displays current day, week, and month
- Identifies trends in performance and production
- Shows which machines run well and which may need service

RUN	MACHINE HISTORY MENU		12:00 PM 01/01/06
DAILY MACHINE DATA		WEEKLY MACHINE DATA	
MONTHLY MACHINE DATA		YEARLY MACHINE DATA	
HISTORY MENU			