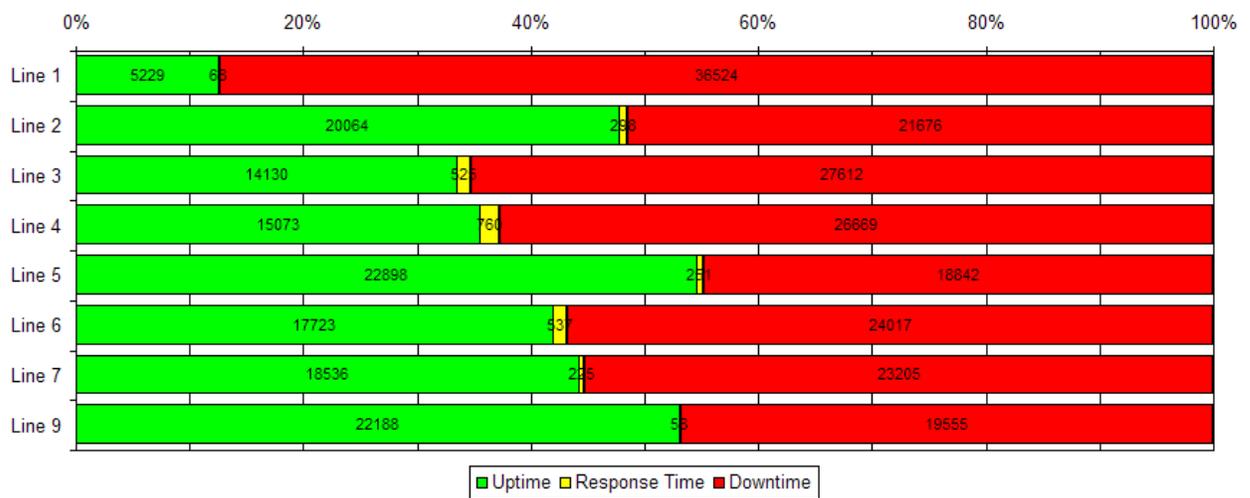


IMPAX TSS-NET Version 2.40: New Reports, Updates, and File Format Changes:

- Uptime vs. Downtime Report: This report visualizes the ratio between uptime and downtime for machines. Uptime, downtime, and response time can be included, and the results can be sorted by any of these values. Selecting which machines to examine and a target date range will result in a clear picture of machine utilization.

Times Report, by Machine

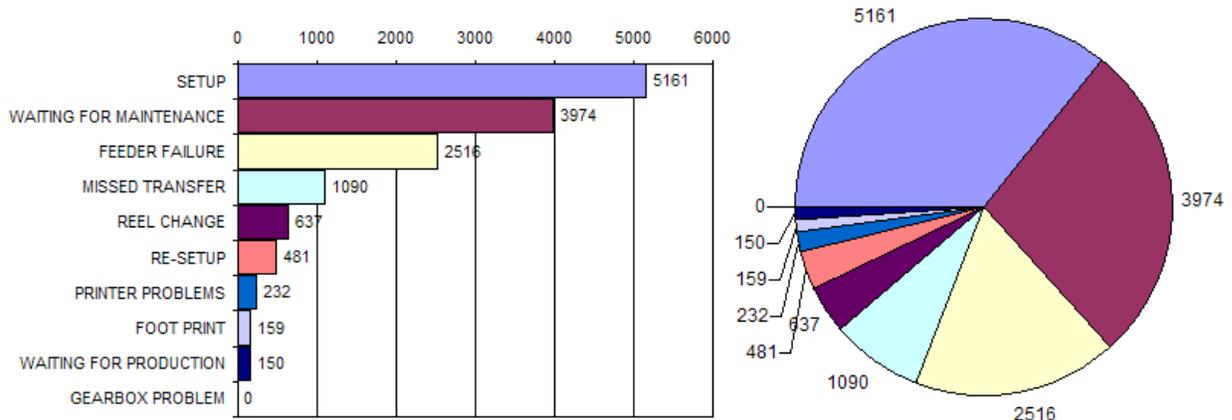
Report data from 1/1/2000 to 12/31/2020, showing 9 Machines, sorted by Machine



- Downtime Analysis Report: This report summarizes and displays downtime occurrence information, sorted by the reason for downtime. A pie chart and Pareto chart of downtime are shown, sorted by each downtime reason. The date range and machines to include can be chosen, and the report will clearly show the major causes of machine downtime.

Downtime Report, by DowntimeReason

Report data from 1/1/2000 to 12/31/2020, showing Line 3





Data Table Report: This is the standard table reporting option previously available in TSS-NET, but expanded to handle new data tracked in this version. A wide variety of types of machine data can be selected, and this report will create a table of that data for the selected machines and dates. TSS-NET can prepare simple lists of data for exporting to other analyses, or can use Excel's Pivot Table functionality to perform powerful sorting and grouping operations.

Summary Report of Machine History Data

Report data from 1/1/2000 to 12/31/2020

Sorted by Machine

Showing 8 Machines

Machine	S1 Count	S2 Count	S3 Count	Total Count
Line 1	1363	2159	1617	5136
Line 2	14784	16926	16031	47741
Line 3	3538	5056	4245	12839
Line 4	5950	5114	7275	18332
Line 5	17224	19266	19696	56186
Line 6	3644	3480	4243	11367
Line 7	6141	6853	5753	18732
Grand Total	52644	58854	58860	170333

More TSS-NET Updates:

- TSS-NET now displays times using a easy-to-read format instead of just the number of minutes. For example, 52 hours and 27 minutes is displayed as "2 days 4:27."
- TSS-NET's Summary View now displays how long a machine has been running (or stopped).
- TSS-NET displays the new OEE, efficiencies, and scrap counts in its real-time views, and also collects the values in its historical files and allows generating reports on them.

File format changes:

The format of the daily and parts/operators data files has changed slightly:

- Quality Efficiencies are now tracked
- Overall Equipment Effectiveness (OEE) values are now tracked
- Time Efficiency is now referred to as Availability Efficiency
- Production Efficiency is now referred to as Performance Efficiency

A data file updater utility is available to automatically convert older data files.

For more information on the IMPAX TSS system, or on how to get the latest version of the TSS software, please contact PTG, Inc. at 630-393-4777.