IMPAX TSS-NET Data File Field Descriptions, v2.40

General Notes:

TSS-NET records historical data in three files:
- SavedDailyData.csv
- SavedDowntimeLog.csv
- SavedPartsAndOperators.csv

Each of the files is a CSV file; the first lines have the column headers. The rest of the lines are the data.

In all three files, the first two columns are timestamp and machine name. The timestamp is the time the data was recorded from our software (not necessarily the time the data was created; data may be recorded after the relevant events occur). The machine name is the shop-floor machine that the data originated from (data from all machines is kept in all three files).

All clock times in the files are 24-hour time (0 = midnight, 2359 = 11:59 pm), unless they are preformatted as "2:30 pm" etc. All amount times (as in, shift downtime) are in minutes.

The CSV files are created by Excel but are not stored in Excel. Therefore there is no limit to their file size or number of records. The CSV files can easily be imported into most databases or production information systems.

SavedDailyData.csv:
This file contains historical data (data by date) for the machines.

Each row represents one day's worth of data from one machine. So if you had 5 TSS monitors working for a week, you should have 5 x 7 = 35 rows of data.

Note that data for a day does not make it to the file until that day is over, and the next day is starting.

Columns:
- Timestamp - see above
- Machine - see above
- Date - the calendar date the data is from
- S1 Count thru Total Count - parts made during shift 1, 2, 3, and whole day
- S1 Cycles thru Total Cycles - machine cycles made during shift 1, 2, 3, and whole day
- S1 Uptime thru Total Uptime - machine uptime during shift 1, 2, 3, and whole day
- S1 Downtime thru Total Downtime - machine downtime during shift 1, 2, 3, and whole day
- S1 Response Time thru Total Response Time - operator response time to downtime events during shift 1, 2, 3, and whole day
- S1 Availability Effic thru Total OEE - efficiency metrics from shift 1, 2, 3, and whole day
- S1 Scrap thru Total Scrap - scrap parts recorded during shift 1, 2, 3, and whole day
- C1DO thru C64DO - daily occurrences of downtime codes 1 thru 64 (if C17DO is 9, it means downtime code 17 happened 9 times on that day on that machine)
- C1DT thru C64DT - daily times of downtime codes 1 thru 64 (if C17DT is 45, it means that that machine spent 45 minutes down for occurrences of downtime code 17 on that day)
- Day Start Time, Day End Time, S1 Start Time, S1 End Time, S2 Start Time, S2 End Time, S3 Start Time, S3 End Time - The start and end times of the day and the shifts, for reference.

SavedDowntimeLog.csv:
This file contains details on each downtime occurrence.

Each row represents one downtime occurrence. This is different from the other files, where each row is a whole day or part run - here one day's data could be 50 lines if there were 50 downtime occurrences.

Note that downtime occurrence data is put in the file when daily data is put in (at the start of each day), or whenever the downtime log buffer in a monitor fills up (the buffer holds 32 occurrences).

Columns:
- Timestamp - see above
- Machine - see above
- Downtime Date - date of the downtime occurrence
- Downtime Start, Downtime End - start and end time of the occurrence
- Response Time - operator response time to the downtime occurrence
- Downtime - actual down time of the downtime occurrence
- Reason Chosen - downtime code of the downtime occurrence
- Job Number - job number at time of occurrence
- Part Number - part number at time of occurrence
- Operator ID - operator ID at time of occurrence

SavedPartsAndOperators.csv:
This file contains part and operator data for the machines.

Each row represents one session of a particular part number, operator ID, and job number on a machine. Each time one of these values change, a new session is started. This way individual jobs, operator runs, or part runs can all be reconstructed.

Note that data for a session does not make it to the file until the next session is starting.

Columns:
- Timestamp - see above
- Machine - see above
- Part No - the part number of the session
- Job Number - the job number of the session
- Operator ID - the operator ID number of the session
- Start Time, Start Date, End Time, End Date - the start and end date/time of the session
- S1 Count thru Total Count - parts made during shift 1, 2, 3, and whole session
- S1 Cycles thru Total Cycles - machine cycles made during shift 1, 2, 3, and whole session
- S1 Uptime thru Total Uptime - machine uptime during shift 1, 2, 3, and whole session
- S1 Downtime thru Total Downtime - machine downtime during shift 1, 2, 3, and whole session
- S1 Response Time thru Total Response Time - operator response time to downtime events during shift 1, 2, 3, and whole session
- Availability Effic thru OEE - efficiency metrics from shift 1, 2, 3, and whole session
- Parts Per Cycle, Ideal RPM, Ideal PPM, Order Quantity - configuration values for current part
- Scrap - number of scrap pieces entered by operator for the session
- C1DO thru C64DO - occurrences of downtime codes 1 thru 64 (if C17DO is 9, it means downtime code 17 happened 9 times on that machine during the session)
- C1DT thru C64DT - times of downtime codes 1 thru 64 (if C17DT is 45, it means that that machine spent 45 minutes down for occurrences of downtime code 17 during the session)