

- Prompt user as to what alarm set points will be generated.
- Filter data based on control tags or other applicable methodology for removing offline data.
- Flag NaNs and stale data points, and consolidate the original array.
- Compare short-term to long-term for each PI tag. Determine if an operational shift has occurred in the short-term, warranting the truncation of long-term historical data.
- Derive variance and standard deviation for statistical analysis.
- Compare normalized standard deviation (Z-score) to user-defined constants. Parse acceptable values into holding array.
- Truncate highest and lowest array values.
- Generate new average, variance, and standard deviation.
- Generate applicable set points based on highest/lowest array value. These points are scaled by user-defined constants and rounded to a user-defined constant of the standard deviation.
- Generate alarm excursion counts based on original array tested against proposed alarm set points. Perhaps an "in-alarm" percentage may be more valuable here?
- Write holding array to CSV file.