WHAT IS CLAIMED IS:

1. A method for filtering data derived from a process wherein the data is generated by an input of energy, the method comprising the steps of:

collecting the data from the process to create a parent data set that includes data points each having a dependent variable and an independent variable associated therewith;

creating a first window of data from the parent data set, the first window spanning from a first data point to an end data point;

calculating an average of the first window of data;

comparing the average of the first window of data to a threshold value;

shifting the first window if the average has not passed the threshold value and repeating the steps of calculating and comparing;

creating a second window of data from the parent data set if the first window average has passed the threshold value, the second window being smaller than the first window and initially including the first data point of the first window and at least one data point preceding the first data point in time if the first window average has passed the threshold value;

calculating an average of the second window of data;

comparing the average of the second window of data to the threshold value;

shifting the second window if the average of the second window of data has not passed the threshold value and repeating the steps of calculating an average of the second window and comparing the average of the second window to the threshold value;

confirming that the threshold value has been reached if the second window average has passed the threshold value; and

ceasing the input of energy after confirming that the threshold value has been reached.

2. The method according to claim 1, further comprising the step of analyzing the data of the parent data set as it is collected.

3. The method according to claim 2, further comprising the step of processing the data of the parent data set to calculate first derivatives of the dependent variables.

4. The method according to claim 3, wherein the average of the first window of data is based upon data that represent a first predetermined range of independent variables.

5. The method according to claim 4, wherein the average of the second window of data is based upon a second predetermined range of independent variables that is smaller than the first predetermined range of independent variables and at least overlaps the first predetermined range of independent variables.

6. The method according to claim 5, wherein an average of a third window of data is based upon a third predetermined range of independent variables that is smaller than the second predetermined range of independent variables and at least overlaps the second predetermined range of independent variables.

7. The method according to claim 6, wherein the second predetermined range of independent variables spans from a first data point to an end data point, and wherein the third window of data initially overlaps the first data point of the second predetermined range of independent variables.

8. The method according to claim 1, wherein the energy is mechanical energy.

9. The method according to claim 1, wherein the energy is chemical energy.

10. The method according to claim 1, wherein the energy is electrical energy.

11. A method for determining whether a process of tightening a clamped joint has been completed, the method comprising the steps of:

collecting data from the process of tightening to form a first data set comprised of data points;

calculating, for each pair of adjacent data points of the first data set, a first derivative between the adjacent data points;

calculating a first tier average from the first data set, the first tier average being indicative of an average of the calculated first derivatives calculated between adjacent data points of the first data set;

incrementing the first data set and repeating the calculating step if the first tier average is less than a threshold value, wherein when the first data set is incremented, an oldest data point is dropped from the first data set and a new data point is added to the first data set;

calculating a second tier average if the first tier average is greater than the threshold value;

determining that the process of tightening a clamped joint has been completed if the second tier average is greater than the threshold value;

determining, if the second tier average is greater than the threshold value, a seating point of the clamped joint by interpolating between the second tier average and the first tier average; and

ceasing the tightening of the clamped joint or applying an additional predetermined amount of tightening after confirming that the threshold value has been reached.

12. The method according to claim 11, wherein incrementing the first data set comprises calculating a first derivative for a new data point and repeating calculating the first tier average for the first data set using the calculated first derivative associated with the new data point.

13. The method according to claim 12, wherein the dependent variable represents torque and the independent variable represents angle.

14. The method according to claim 11, further comprising:

when the first tier average is greater than the threshold value, creating a second window that shares at least one data point with the data points of the first data set and includes at least two data points of the data; and

calculating a first derivative for each of the at least two data points,

wherein the second tier average is indicative of an average of the calculated first derivatives associated with the at least two data points.

15. The method according to claim 11, wherein the first tier average is based upon data pairs that represent a first predetermined range of independent variables.

16. The method according to claim 15, wherein the second tier average is based upon a second predetermined range of independent variables that is smaller than the first predetermined range of independent variables and includes at least one independent variable that is in the first predetermined range of independent variables.

17. The method according to claim 16, wherein a third tier average is based upon a third predetermined range of independent variables that is smaller than the second predetermined range of independent variables and includes at least one independent variable from the second predetermined range of independent variables.

18. A method for filtering noisy data, the method comprising the steps of:

collecting a parent data set from a torquing tool while torquing a fastener through a range of angles;

processing the parent data set to calculate first derivatives between adjacent pairs of data;

averaging first derivatives within a first specified angle span to generate a first derivative average;

determining a rate of change between the first derivative average associated with the current angle and a first derivative average associated with a previous angle to generate a second derivative of torque based on point-to-point slope between adjacent first derivative averages;

averaging second derivatives within a second specified angle span associated with a current angle to generate a second derivative average;

comparing the resulting second derivative average to a second derivative threshold value;

determining that the process of finding a seating point of a clamped joint has been completed if the second derivative average is greater than the second derivative threshold value;

determining, if the second derivative average is greater than the second derivative threshold value, a seating point by interpolating between the second derivative average and the first derivative average; and

ceasing a tightening of the clamped joint or applying an additional predetermined amount of tightening after confirming that the threshold value has been reached.