**Bin Tracking**

**Objective:**

A tool for service or engineering personnel to evaluate bin tracking performance using log files.

**Requirements:**

1. The Bin Tracking application shall be a standalone application with a graphical user interface.
2. The Bin Tracking application shall allow the user to specify one or more log files as input.
3. The Bin Tracking application shall filter the selection of files to files that match the pattern: AnalogicStandaloneType\*.log
4. The Bin Tracking application shall allow the user to specify a directory as input for the log file location.
5. Specifying a directory shall use all log files matching the file name pattern in Requirement 3 that are found in the selected directory.
6. If a directory is selected and it contains no log files, a dialog shall be shown with the text: No log files found.
7. If the log file(s) selected is not valid a dialog shall be shown with the text: Invalid log files detected.
8. When a log file(s) or directory is selected the Bin Tracking application shall load the log file(s) and:
   1. A histogram of linked bags shall be displayed in a bar chart.
      1. The histogram shall use the X axis for the attenuation window location.
      2. The histogram shall use the Y axis for the frequency.
      3. The X axis shall be labeled “Attenuation Window”.
      4. The Y axis shall be labeled “Frequency”.
   2. A summary of bin tracking information shall be shown in text on the screen that includes:
      1. Total number of bins scanned with the label: Total Bins:
      2. Total number of linked bins scanned with the label: Total Linked Bins:
      3. Total number of unlinked bins scanned with the label: Total Unlinked Bins:
      4. Percent of unlinked bins scanned with the label: Percent of Unlinked Bins:
   3. A summary of unlinked bin tracking information shall be shown in text on the screen that includes:
      1. TBD

Future:

1. A count of unlinked bins that are TBD millimeters over the upper limit of the window.
2. A count of unlinked bins that are TBD millimeters below the lower limit of the window.
3. A count of unlinked loose objects.
4. A count of oversize objects.
5. A count of cut objects.