Balance Tool Summary:

1. Current Balance Tool:
   1. System
      1. System Condition
         1. Full Working CT system.
      2. System Configuration
         1. CT16/64: Console and SCB.
         2. CT256: Console and Scan Control PC.
         3. Third party Tool:
            1. CT16/64: GalilTools from rotate motion controller manufacture.
            2. CT256: Kollmorgen from rotate motion controller manufacture.
         4. Computer
            1. Field Engineer’s laptop that connect to system network switch
            2. Scan Control PC
            3. Console PC
   2. Software:
      1. Excel version, current used by engineer
      2. Matlib version, developed but not used for system balance process
   3. Balance Workflow:
      1. Follow the working institution to run the third part tool.
      2. Generated or manually crated the test data as 00-XXXX,<Serial #>,<Date>,Cal#.csv using the third party tool.
      3. Load .csv into Balance tool (Exel/Matlab)
      4. Base on tool outputs to make weight adjustment.
      5. Repeat step a-d until it passed the balance criteria base on the system requirement.
      6. Save the testing report to 00-XXXX,<Serial #>,<Date>,Run<Test #>.csv
2. New Balance Tool:
   1. Target User: Manufacture/Field engineer.
   2. Target Computer:
      1. Field Engineer’s laptop with connection to system network.
      2. Scan Control PC.
      3. Console PC.
   3. Target OS: Windows 10 Pro
   4. Development Tool: C#
   5. Software Tool Scope:
      1. Take third party software .cvs output file as input.
      2. Process the data.
      3. Output the result and report.
      4. No direct control or communication with motion system.
      5. Stand-alone software.
   6. Configuration:
      1. Select system: CT16, CT64, CT256…
      2. Load mechanical parameters and balance criteria from configuration file base on system selected.
      3. Default shared network path on Console PC for configuration, testing data and report files.
   7. Balance Data
      1. User can use default or custom file location.
      2. User can select .cvs file that generated by third party software as input from GUI browser.
   8. Display Info:
      1. System Info
      2. Mechanical parameters.
      3. Balance History.
   9. Output:
      1. Weight and position for improve the balance.
      2. Residual imbalance (how out of balance it is measured in g\*m)
      3. Static balance graph.
      4. Pass/Failed
      5. Balance report. Report should include balance process history.
   10. Balance Cases:
       1. New system,
          1. Balance from base 0.
          2. Save balance report.
       2. Existed system,
          1. Load last balance report.
          2. Input testing reason.
          3. Run testing.
          4. Updated balance report.