IPRO 304 (Heat Treatment) – Improving Manufacturing Process Controls

Overarching Principle: Provide a solution to improve the heat treatment process of A. Finkl & Sons.

1) Law

  Canon: Shall respect all copyrights and patents by upholding local, state and federal laws.

  Pressure: Time constraints in completing work and deadlines
  Risk: Copy or use software code in an unlawful manner without proper consent from licenser.
  Risk: Deconstructing current software and copying their methods of implementation.

2) Contracts

  Canon: Shall abide by the agreements made in all contracts with A. Finkl & Sons as well as the software development package providers.

  Pressure: Use the equipment/software tools for other purposes other than A. Finkl & Sons.
  Risk: Violate terms of agreement between the IPRO group, A. Finkl & Sons, and the software developers.
  Risk: Permitting the sale/delivery of equipment/software tools prior to proper commercial licensing.

3) Professional Codes

  Cannon: The Association for Computing Machinery has established guidelines and codes of conduct for those computing engineering and the team is expected to follow these guidelines. (The ACM code of ethics may be found at: http://www.acm.org/about/code-of-ethics)

  Pressure: Produce a stable program, delivered within a time period of one semester.
  Risk: Not produce a program that "will avoid harmful effects to health and welfare" by producing a product that has not been thoroughly tested for system stability and maintainability.
  Risk: Produce a program with taking steps to "**Acquire and maintain professional competence**," thereby ensuring that all those developing the software or capable of creating a safe and dependable program.

4) Business and Industry Environment

Cannon: Shall work within the guidelines proposed by A. Finkl & Sons Department Of Information Technology and Manufacturing.

Pressure: Find a simpler/faster equipment platform.
Risk: Use equipment and software not approved by A. Finkl & Sons.
Risk: Develop software that requires constant equipment upgrades.

5) Community

Cannon: Shall abide by the Illinois Institute of Technology's code of conduct. (The code of conduct can be found at http://www.iit.edu/~osa/Handbook/handbook.pdf)

Pressure: Complete the project in the given time constraints.
Risk: The team claims ownership of a third party's work.

6) Personal Relations

Cannon: Shall develop an honest, respectful, lasting relationship with teammates, advisors and A. Finkl & Sons.

Pressure: Provide a high quality, working solution.
Risk: Conceal poor quality work from the advisors and A. Finkl & Sons.
Risk: Team member claims the work done by another as his own.

7) Moral and Spiritual Values

Cannon: Shall work within the personal views of the team members and A. Finkl & Sons.

Pressure: Complete the project on time with the given time constraints.
Risk: Cancel previously made plans in order to further work on the project.
Risk: Ask Finkl & Sons to operate on a time convenient for the team.