



# 2013 Summer Co-Op Review

Braden Licastro

May – August & November 2013



# Profile: Braden Licastro

**School Attending:** Allegheny College

**Class Standing:** Senior

**Major:** Computer Science

**Minor:** Economics

**Manager:** Jim Zakrzwski



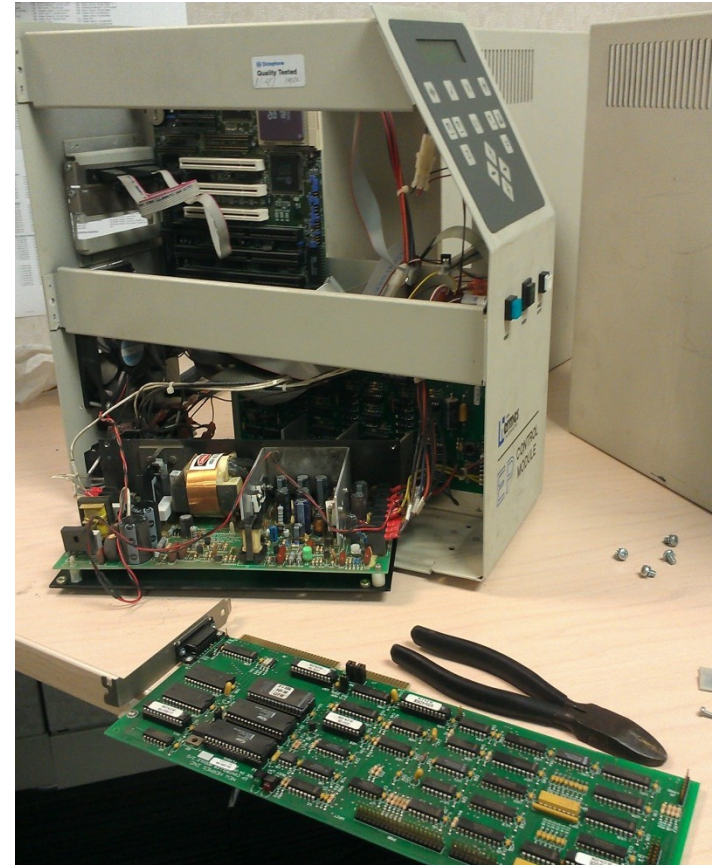
# Project: Vibratory Engraver Repair

- Scope: Upgrade PC, restore engraver and Control Unit to working condition.

- Goals: Upgrade computer to GravoStyle 7

Diagnose, repair, and clean engraver / control unit.

Configure, calibrate, and test engraver software to ensure proper function.



# Project: Vibratory Engraver Repair

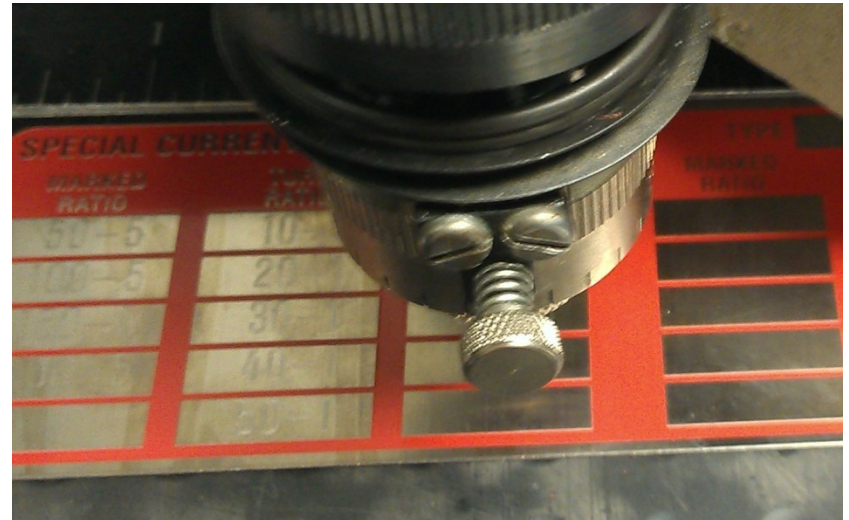
- Challenges Overcome

- No prior experience using engraving machines, configuration lost when computer failed
- Both computer and engraver control unit failed
- Upgrading specialized software from MS-DOS to Windows 7
- No documentation available to assist with repairs



# Project: Vibratory Engraver Repair

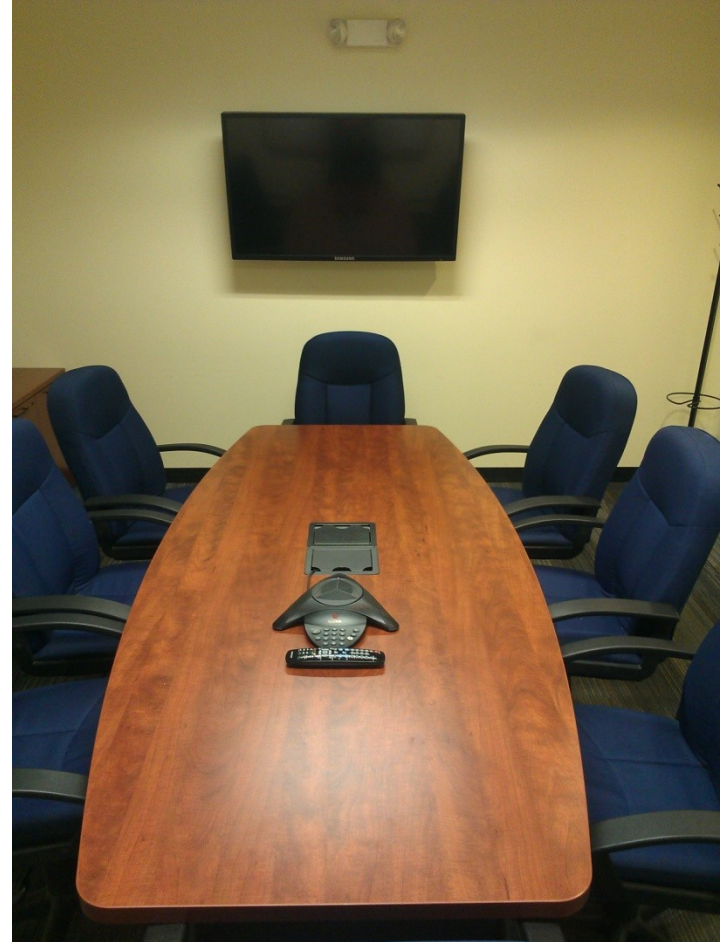
- Project outcome:
  - Upgraded, repaired, and calibrated engraver and computer system. Test engrave successfully completed.



Problem resolved and customer satisfied!

# Project: Conference Room Maintenance

- Goal:
  - Ensure conference rooms renovated last summer were still in working order and repair any damage.
  - Rework product support and production conference rooms.



Problem resolved and customer satisfied!

# Project: Change Requests

- Scope: Update technical documents to reflect new process changes.
- Project Outcome:  
All requests completed and submitted for approval.



Problem resolved and customer satisfied!



# Project: Production Floor Wood Reduction

- Scope:  
Coordinate the change away from wood tooling from the production floor.
- Project Outcome:  
All wood tooling successfully replaced with aluminum. No impact on manufacturing.



Problem resolved and customer satisfied!



# Project: Server Room Renovation

- Goals:

- Remove hydraulic fire suppression and install modern Halon replacement.
- Install hard ceiling and create airtight space.
- Upgrade HVAC and lighting to accommodate fire system
- Install whole-room, 2.5 hour battery backup with surge protection and monitoring.
- Upgrade legacy and damaged equipment.
- Upgrade wiring in server room and remote computing cabinets.

# Project: Server Room Renovation

- Challenges Overcome

- No on-site IT support for diagnostics and assistance
- Project could not interrupt day-to-day operations
- Working with obsolete, heavy, and delicate equipment
- Coordinating construction schedule with several contractors
- Researching, purchasing, and installing unfamiliar equipment and technologies

# Project: Server Room Renovation

- Project Outcome:
  - Room construction completed and passed inspections



# Project: Server Room Renovation

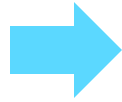
- Project Outcome:
  - Sapphire Fire Suppression installed and operational





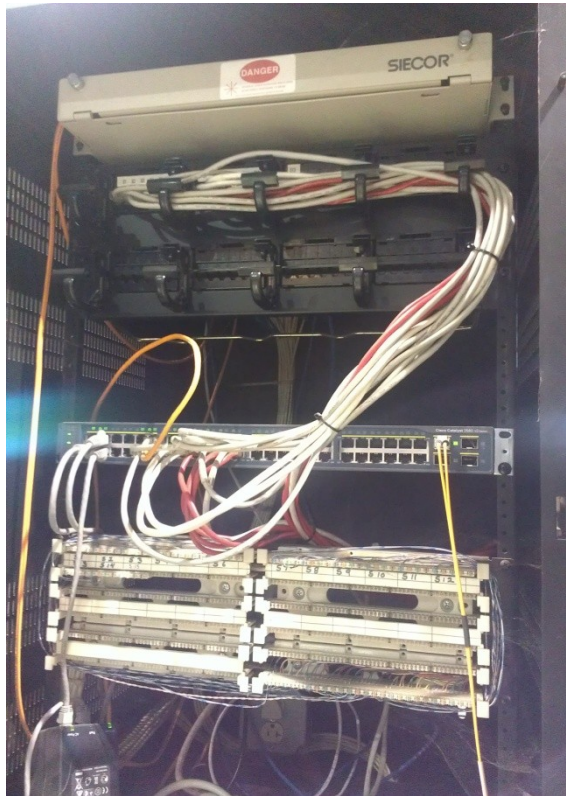
# Project: Server Room Renovation

- Project Outcome:
  - 2.5 Hour Battery Backup Installed and Operational



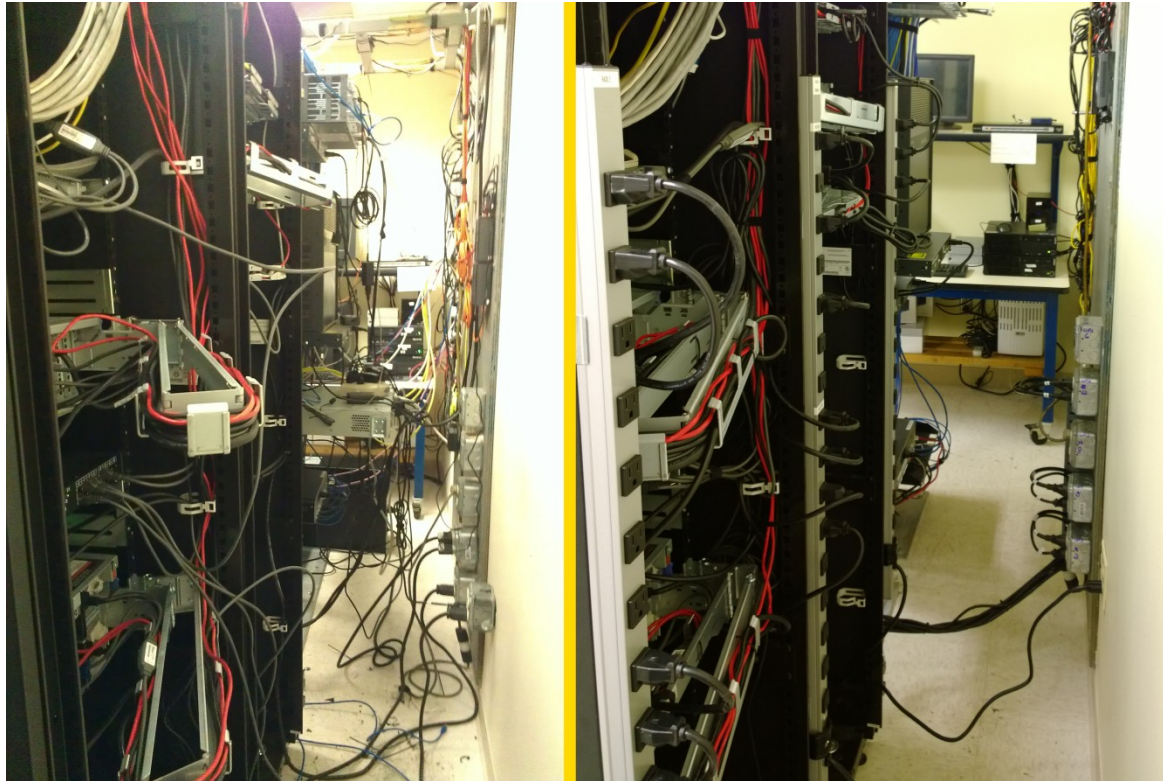
# Project: Server Room Renovation

- Project Outcome:
  - Remote network cabinets rewired and upgraded



# Project: Server Room Renovation

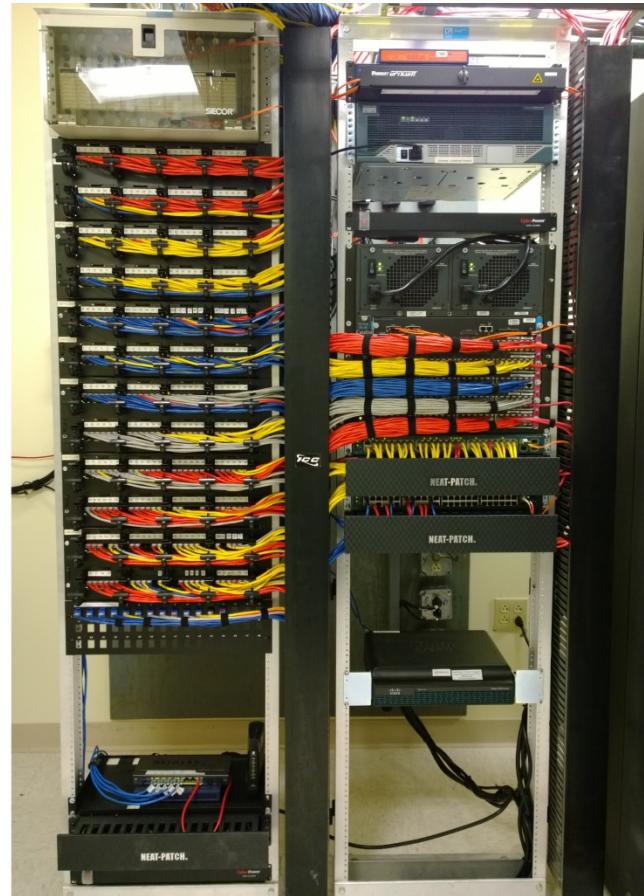
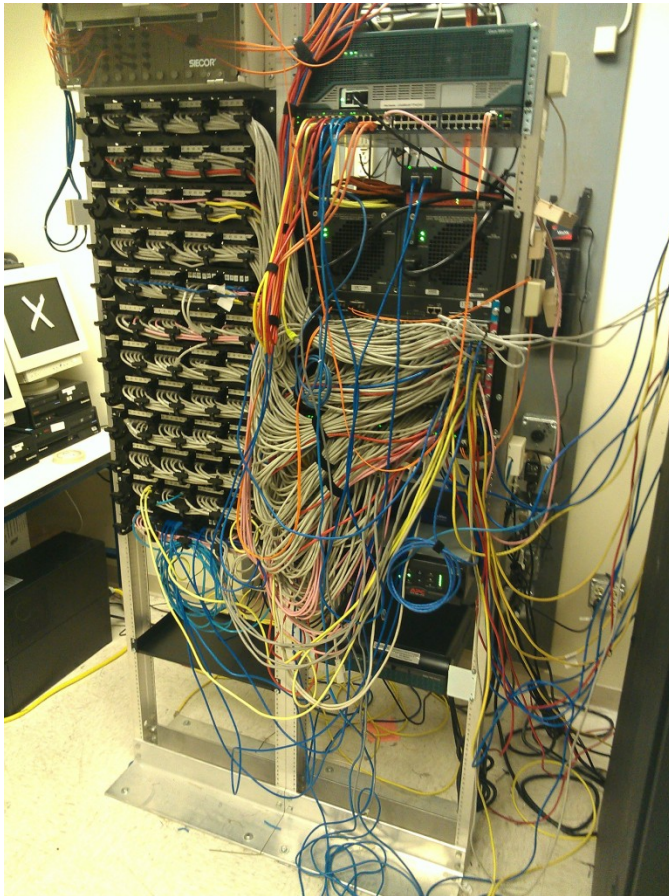
- Project Outcome:
  - Server Racks and miscellaneous equipment upgraded, rewired, and operating on redundant power.





# Project: Server Room Renovation

- Project Outcome:
  - Data Racks upgraded, rewired, and operating on redundant power.
  - New standards created --racks organized, and wired appropriately.





# Project: Server Room Renovation

- Conclusion:
  - Network upgrades functioning perfectly.
  - No production downtime occurred.
  - Modern, reliable, and maintainable setup will reduce future maintenance costs.



Problem resolved and customer satisfied!

# Beneficial Experiences

- Learning how corporations manage funds and logistics for purchases
- Successfully coordinating schedules with large groups of people and contractors
- Working cooperatively in a union environment
- Communicating with out of state and country resources to complete a task
- Using past experiences and knowledge to complete a difficult or new task

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