

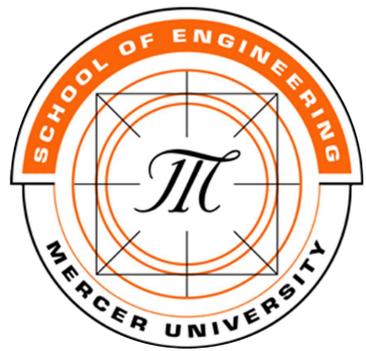
# Development of Inventory and Process Management for the Department Of Facilities Management at the Medical Center of Central Georgia

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## Problem Statement

- Current layout and supply/tool identification systems are not standardized
- Inventory maintenance and record keeping
  - No established re-order points or minimum (Min)/maximum (Max) levels for the supplies.
  - No inventory data collection system in place



## Background

- The Department of Facilities Management:
  - Storeroom inventory divisions
    - Electrical
    - Plumbing
    - Painting
    - Heating, ventilation, and air conditioning (HVAC)
  - Responsible for all repairs and maintenance for the Medical Center of Central Georgia (MCCG).
  - Uses a storeroom to house all of the supplies and equipment needed for routine hospital maintenance.
  - The Department of Facilities Management has 4 supervisors and a current staff of 70 employees.

## Project Design

- 1<sup>st</sup> semester:
  - Create new procedures for inventory maintenance and inventory tracking.
  - Develop layout so as to locate supplies quickly and efficiently
  - Create process to determine min, max, and re-order points
  - Create standardized labeling system for inventory
  - Develop several alternatives for inventory tracking and system maintenance

### Organization Process



### Inventory Label Design

Part Name: <b>Als Overflow Plate Assembly</b>		
Part Number: <b>0047662</b>		
Department: <b>Plumbing</b>		
Vendor: <b>Sexauer</b>		
Min	Max	Reorder

### Inventory Tracking and Maintenance



## Implementation

### Organized Storeroom

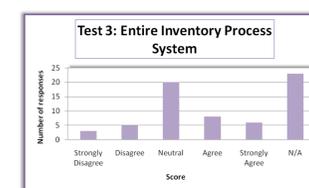
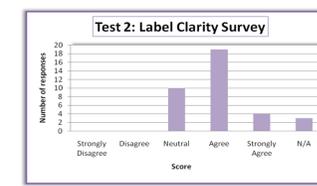
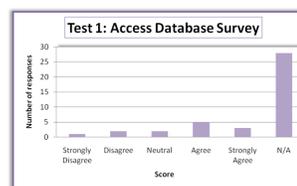


- 2<sup>nd</sup> semester:
  - MCCG decided to implement JAW inventory process selecting Microsoft Access as maintenance.
  - Once implemented JAW tested the process for usability, maintainability, and sustainability.
  - Based on various tests, analysis conducted on the results and presented to MCCG with recommendations for the future.
  - Project released to the DFM

## Testing

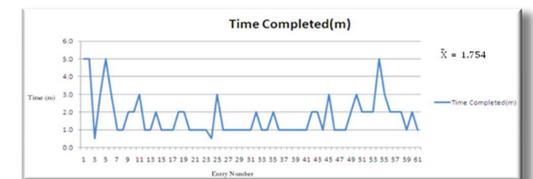
- Test 1
- Human Acceptance- Survey
    - Purpose: Test Usability of the Microsoft Access database system
- Test 2
- Human Acceptance- Survey
    - Purpose: Determine the clarity of the inventory label design
- Test 3
- Human Acceptance- Survey
    - Purpose: test the sustainability and user acceptance of the overall system
- Test 4
- Performance Test- Data Collection
    - Purpose: Used to determine if floor room layout/organization makes it easy to locate supplies
- Test 5
- Performance Test- Data Collection
    - Purpose: Determine if new organization and layout has cause a decrease in the number of emergency requisitions for supplies

## Results



## Results Cont.

### Test 4 Results



## Conclusion

- Based on the results of the tests,
  - The organization and labeling systems are more efficient than the previous system.
  - a lack of historical data and the limited amount of time that the systems have been in place, made it difficult to give a useful statistical analysis of the processes.
- However,
  - JAW is confident that upon release of this project, the inventory process will be maintained.
  - The addition of the TMS on site professional will serve as a compliment to the JAW system.

## Recommendations

- Upon release of this project to MCCG, Jaw recommends:
- The DFM continue to put forth effort to maintain this new inventory system.
  - Training of the DFM employees be conducted to ensure the maintainability of the system.
  - The department start to keep track of financial data concerning their inventory to be used in the future to track inventory cost and usage.
  - Continued applications of their system into other departments and storerooms with the MCCG.

## Acknowledgements

- Dr. Laura Moody, Associate Professor & Chair- Project Manager
- Dr. Joan Burtner, Associate Professor- Technical Advisor
- Drew Elrod- Industrial Engineer
- The Employees and Staff at Medical Center of Central Georgia