# HALEY PATTERSON

Hometown: Hartselle, AL

Senior at University of Alabama

Mechanical Engineering Major

2nd Term Co-Op

Plant 4-Residental Carpet Manufacturing
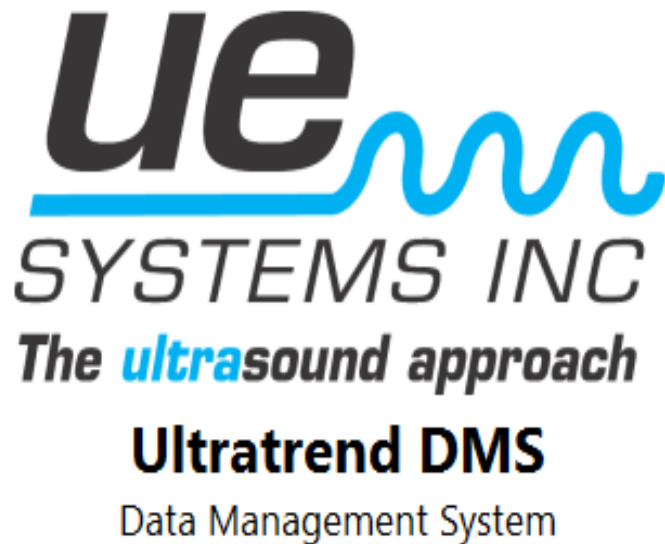
Maintenance Department

Supervisor: Jacob Hall/Sean Metcalf

Plant Manager: Keith Goble

**Shaw**
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# *What is Ultratrend DMS 5 ?*

**ue SYSTEMS INC**

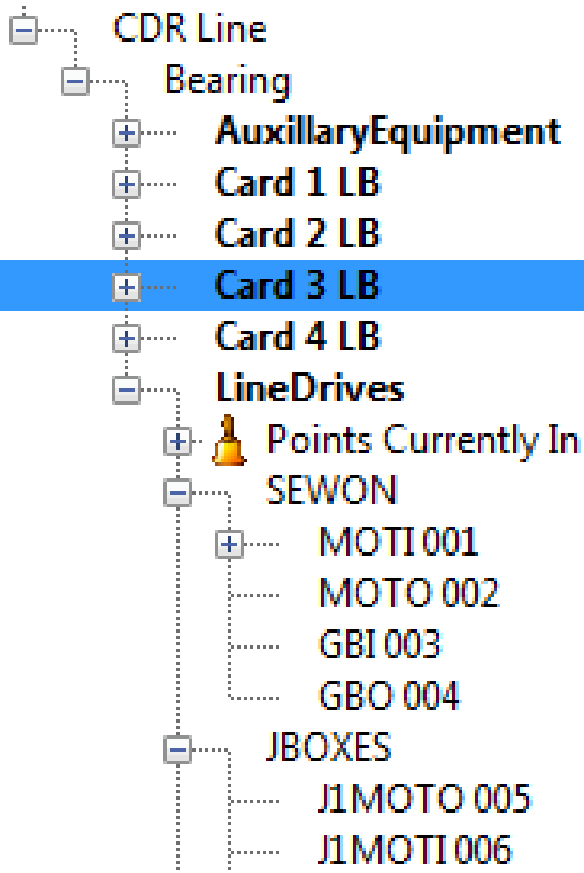**The *ultra*sound approach**

**Ultratrend DMS**

Data Management System

* UE Systems program, Data Management System
* Tool used to store and organize data and records it; also provide reports, pictures and graphs
* Transmits data from the Ultraprobe to a computer or vice versa via SD card
* Used for Preventative Maintenance Purposes
* Measures decibels, frequency, and date of reading
* Can be used on anything that makes a sound

# Equipment

# Procedures

CDR Line
- Bearing
  - **AuxillaryEquipment**
  - **Card 1 LB**
  - **Card 2 LB**
  - **Card 3 LB**
  - **Card 4 LB**
  - **LineDrives**
    - Points Currently In
    - SEWON
      - MOTI 001
      - MOTO 002
      - GBI 003
      - GBO 004
    - JBOXES
      - J1MOTO 005
      - J1MOTI 006

* Create:

  Plant → Application → Group → Location/Machine →Record
* Put SD card in Ultraprobe gun
* Use different probes for input and output areas for ultrasounds of the technology being tested
* Listen for distinct sounds
* Download information to computer
* Get baseline for each machine (3 times in a row within one week)
* Repeat this procedure once every two weeks to make sure everything is in check

# Implementations



* Applying on 45 tufting machines, 2 dye lines, and 2 coaters (adds backing)
* Helps determine potential problems/machine failure before occurring
  * Examples: adding grease to bearings, changing out bearings, getting new line drives, add gear oil to gearboxes, etc.
* Lack of preventative maintenance causes downtime, poor quality of carpet, and lack of efficiency

# Efficiencies & Costs

* Dye Lines and Coaters
  * If down, we lose around $1,200/hour
  * Efficiency of dye lines: ~98%
  * Efficiency of coaters: ~96%
* Tufting machines
  * If down, we lose around $130/hour and customers
  * Efficiency of tufting: ~76%

# What I Have Learned…

* Teamwork
* Different strengths in groups are what help accomplish tasks successfully
* Better understanding of Preventative Maintenance technology
  * Important to be applied to lessen likelihood of failed equipment

# Questions?