

TS-414 FALL CO-OP WORK OVERVIEW

SEAN MURRAY



12/7/2018



INTRODUCTION

Name: Sean Murray

Home: Chapel Hill, NC

School: North Carolina State University
BS Aerospace Engineering
May 2021

Interests: Cars, Space, Aviation

Department: TS-414
Poka Yoke and BVIS Teams



RESPONSIBILITIES / PROJECTS

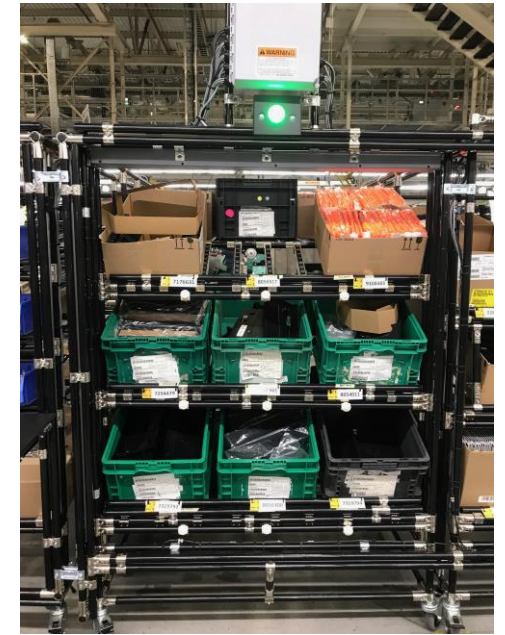
Poka Yoke Projects

Task Description

- General building, wiring, and programming support
- Specialty Poka Yoke Design
 - Thermostat Verification
 - Exhaust Manifold Fixture
 - Screw Counter Prototype
- Arduino Sound to WAGO Communication

Personal Improvements

- Design, Fabrication, Wiring, Programming
- Problem Solving and Error Prevention
- Lean Manufacturing



RESPONSIBILITIES / PROJECTS

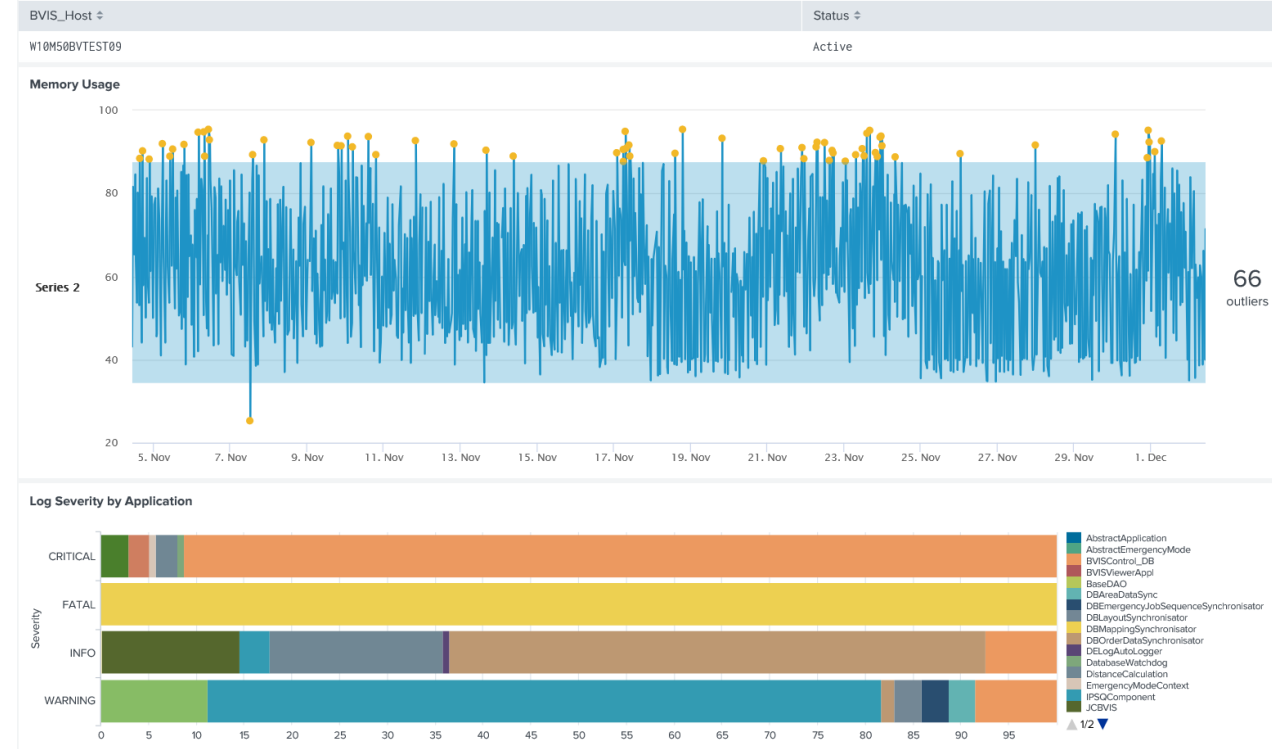
BVIS Projects

Task Description

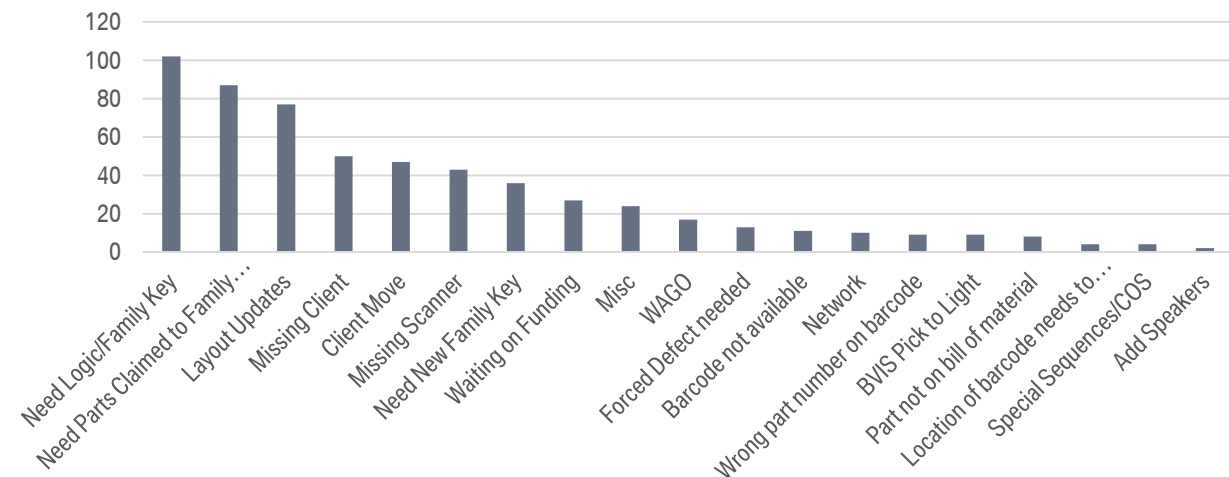
- H50 G05 Launch BVIS LOP Analysis
- Splunk Dashboard
- Text to Speech Sound Generation
- BVIS Forced Defect Scans Investigation

Personal Improvements

- Root Cause Analysis
- Continuous Improvement
- BVIS Super User



BVIS LOP List Topic Occurances



RESPONSIBILITIES / PROJECTS

Department Communication and Outreach

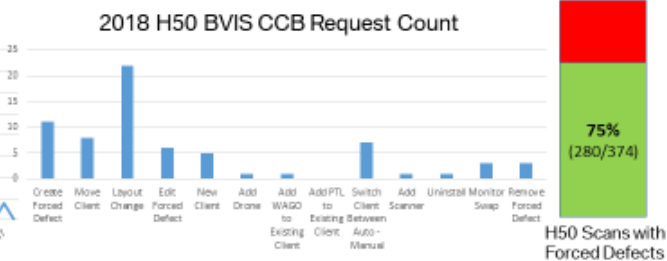
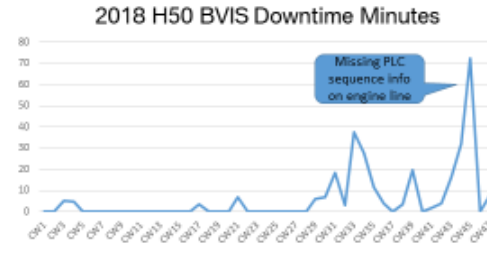
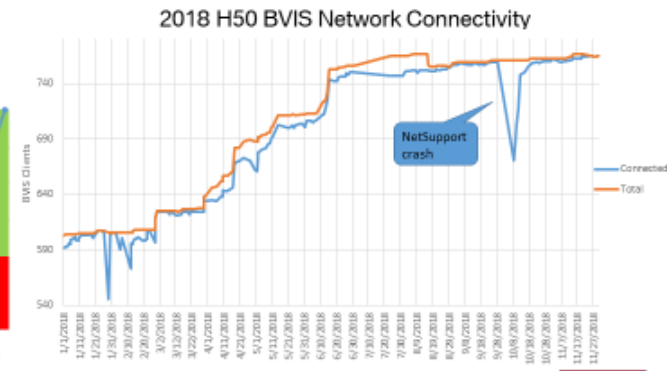
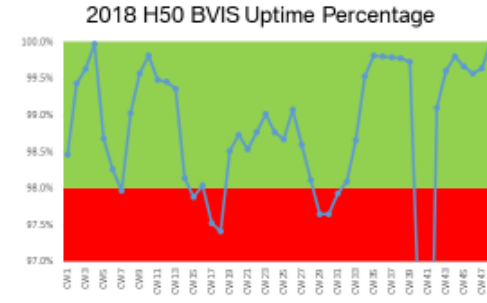
Task Description

- BVIS Metrics
- Department Newsletter and Monitor
- Maintained Poka Yoke and BVIS intranet sites

Personal Improvements

- Effective data presentation and analysis
- Communication

H50 BVIS Metrics



DEPARTMENT NEWS

CCB System Merger

The Poka Yoke and BVIS request systems have merged into a single system to better work with the COPS flow.

<https://vts3-dca.bmwgroup.net/sites/plant10ts41/bvis/SitePages/Home.aspx>

BVIS Moves

All BVIS client and monitor moves require a CCB Request. Work must be coordinated through the BVIS team so that proper network, backend, and layout changes can be made. Unauthorized moves are not permitted and will cause BVIS failures.

w10m52v4014 H52v4014	H52_Assembly	Z3642 TE	G01	09/21 10:53	00:42	1 2 3
-------------------------	--------------	-------------	-----	-------------	-------	-------

A single BVIS client is able to force multiple defects while a standard Poka Yoke WAGO system or BVIS PTL can only support a single forced defect. Requests for new forced defects must be submitted through the CCB Request system.

H52 BVIS Header Update

The Hall 52 BVIS Layout headers now include the takt and reader point information and a lighter colored background to streamline troubleshooting and improve readability.



Tooling Fact:
Hand start or rundown tools are permitted to achieve a maximum of 50% of final torque per PV09043

RESPONSIBILITIES / PROJECTS

Technology Documentation and Planning

Task Description

- Maintained Poka Yoke Catalog
- Process observations
- Managed Poka Yoke Component Inventory
- Winter Shutdown H52 Poke Yoke Planning

Personal Improvements

- Planning, Organization, and Tracking

Band 40x Poka Yoke Moves				
Solution Description	Current Line Location	Desired Line Location	Move time	Notes
Key Fobs	12001S	12001S	22-Dec	Moved after last production shift, stored, and reinstalled CW2
Hud Screws (disconnected)	12005L	12005L	22-Dec	Moved after last production shift, stored, and reinstalled CW2
LHD Console Bracket	12006L	12006L	22-Dec	Moved after last production shift, stored, and reinstalled CW2
CID Screws	12011L	12014L	22-Dec	Moved after last production shift, stored, and reinstalled CW2
Electrical Connection Verification	12012L	12010L	22-Dec	Moved after last production shift, stored, and reinstalled CW2
Hood Actuators	40001L	40004L	CW2	
Brake/Gas Pedal	40002R	40005L	CW2	
B+ Cable	40004L	40007L	22-Dec	Equipment work conflict requires earlier move
Fuel Line Defect	40006L	40008R	CW2	
FSSP	40008L	40016R	22-Dec	Equipment work conflict requires earlier move
IP Tunnel Bracket	40009R	40012R	CW2	
Smart Chip Verification	40010R	40013R	22-Dec	Equipment work conflict requires earlier move
DCS Bracket (disconnected)	40012R	40014R	CW2	
Console Supermarket	40012L	40014L	CW2	
Wiper Motor	40014R	same		
ACSM Bracket	40014L	40016L	CW2	
G01 Hatch Plug	40015L	same		
Distributor Mobile Cart	40016R	same		
D-Pillar L	40017L	40015R	CW2	
D-Pillar R	40017R	40015R	CW2	
Heat Shield	40018R	40019R	CW2	
G01/G02 Striker R	40019R	same		
G01/G02 Striker L	40019L	same		
Lashing Eye	44001L	same		
9XA Option Alarm (disconnected)	44005L			Remove prior to shutdown
Taillight Grommet (disconnected)	44007L	47009L	CW2	
Rain Sensor Area Light Grid	44007R	47001R	CW2	
Switch Valve	45001L	47003R	CW2	
Center Console Smoker Package	45001R	44007S	CW2	
RHD Dummy Plug	45004R	45007R	CW2	
Seat Release Lever R	45005R	45007R	CW2	
Seat Release Lever L	45005L	same		
Hatch Mobile Cart	45008L	48008L	CW2	
Faceplate/Badge	45008R	44010L	CW2	
Mobile Cart Wago Box (disconnected)	48001L			Remove prior to shutdown
Spare Wheel Foam	48002L	45014R	CW2	
Seat Release Lever	48002R	45014R	CW2	
Rocker Light	48004L	same		
Step Plate	48004R	same		
China Sticker	48007L	same		
Fuel Cap Area Light Grid	48008L	48007L	CW2	
Bumper Bracket and Heated Seat	48008R	48007R	CW2	

Racks moved after last production shift	8
Racks requiring storage	5
Racks moved in CW2	27

Racks removed prior to shutdown	2
---------------------------------	---

Racks in correct location	10
---------------------------	----