



Elegance Lab Inc.

Polaris – Vehicle Testing System



Project Scope

Project was to convert clients classic ASP based vehicle testing system to ASP.NET based web application to operate from a single web app with multiple user role, and provide iPad app to test drivers to write their daily logs during field test.

Project Duration

01 month – Requirement Analysis
02 months – Wireframes, User Testing, App Flow
04 months – Application UI/UX Design
12 months – Development and Testing

My Project UX Scope

1. Research & Discovery [user interview, user task analysis, user need analysis]
2. Stakeholder Interview [gather user needs and business goals]
3. Create persona to map user insights with their requirements
4. Sitemap, User task flow
5. UI and Interaction design presented in wireframes and visual designs
6. Navigation design and Labeling (card sort)
7. UI design for web and iPad
8. Daily design review meetings [face to face / teleconference] with business and development teams
9. User testing and resulting design refinement



Problems with old system

1. Four types of user groups using different type of methods to enter the test results
2. System was not having any facility to map projects with test result
3. Too many screens to enter information, with many fields not relevant for specific user groups, making UI complex to use

Solutions with new system

1. Improved UX and system capabilities
2. Reduced the number of screens, with screen customization for 3 different types of user (Project mangers, Test requester, Field drivers, Engineer) role
3. Full text search for within app content based on project units

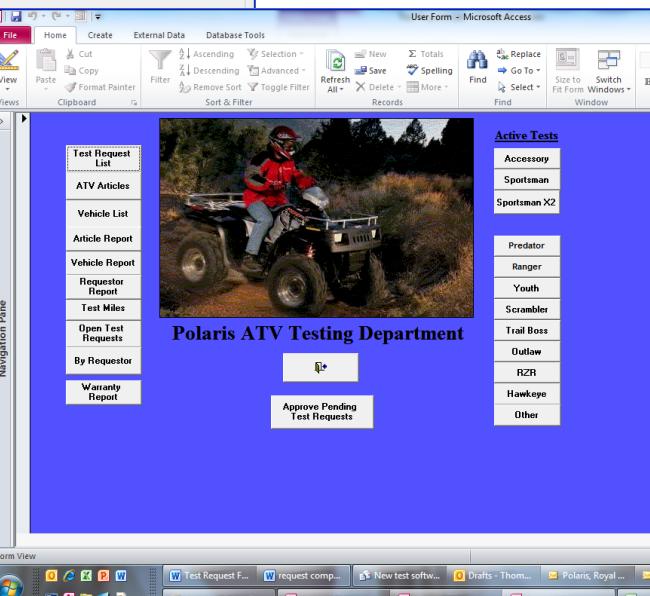


Old System

The screenshot shows a Microsoft Access application window titled "Test Request Form for Approval - Microsoft Access". The main form contains the following data:

Product Line	ATV
Title	T10003 1911710 Ranger Park Brake Caliper Lab Cycle Testing
Requestor	Austin Houkum
Project Leader	Kevin Van Bronckhorst
Project Number	T10003
* Required Information	
Reason for Test	Cost Improvement
Describe if other:	(empty)
Part Number(s)	1911710
Part Information / Description	
Cost reduction from current park brake caliper.	
Test Objectives	
Records	1 of 6
Views	Test Requests... Request co... New test so... Drafts - Th... Polaris, Roy... I10801
File	Home Create External Data Database Tools
Clipboard	Cut Copy Paste Format Painter Filter Refresh All Remove Sort Advanced Sort & Filter
Find	New Totals Replace Go To Find Select
Text Formatting	Switch Fit Form Windows

The sidebar on the right contains links: "Test Request List", "ATV Articles", "Vehicle List", and "Article Report".



File Home Create External Data Database Tools Test Request Form - Microsoft Access

View Paste Copy Format Painter Filter Ascending Selection Advanced Remove Sort Toggle Filter Refresh New Totals Go To... Size to Fit Form Window Test Formatting

Print Preview Find Go To... Select Find Next More Records

Test Requests

Test Number	31027406	Open	Active	Report Written	<input type="text"/>	<input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="..."/>		
Title	Ranger 900 (Titan) Cascle CVT Belt Diagnosis Test	Report Written By	<input type="text"/>	Link File	<input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="..."/>		Print Request	
Date	7/23/2012	Test Type	<input type="text"/>	Control Number	<input type="text"/>	<input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="..."/>		
Requested By	Anney KuN	Lab	<input type="text"/>	Report Number	<input type="text"/>	<input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="..."/>	Add Request	
SupProgCost	Brent Espanier	Certification	<input type="text"/>				Modify and Re- Assign Test Request	
ResCapnD	10/23/2012	Test Log	<input type="text"/>	Vehicle Number	<input type="text"/>	Spec	<input type="text"/>	
Res4Test	Cost Improvement		<input type="text"/>	TripID	<input type="text"/>	Field Data	<input type="text"/>	
Part Description	Cascle CVT belt number 9193.		<input type="text"/>	Miles	<input type="text"/>	Hours	<input type="text"/>	
Part Number	Carlife Sample 9193		<input type="text"/>	Report Rec	<input type="text"/>			
Number of Spec	5							
Spatsman	<input type="radio"/> 21st <input type="radio"/> RZR							
Project Q	<input type="radio"/> Outlaw <input type="radio"/> Youth							
Ranger	<input checked="" type="radio"/> Scrambler <input type="radio"/> TrailBoss							
Accessory	<input type="radio"/> Other <input type="radio"/>							
Comments <input type="text"/>								

Record: 14 of 1 of 1 |

Form View Record: H 4 4464 of 6336 > | Search





1

UI Suggestions

- Dashboard
- Latest Activity
- VM (Validation Matrix)
- Projects
- Test Request
- Logs
- Units

2

Feature Addition

- Role based login
- Validation Matrix
- Unit based search
- Dashboard
- Latest Activity
- Project Status Cues
- Automated Log Entry using iPad

3

Proposed Solution

- Native IOS app
- ASP.Net Web app
- Admin

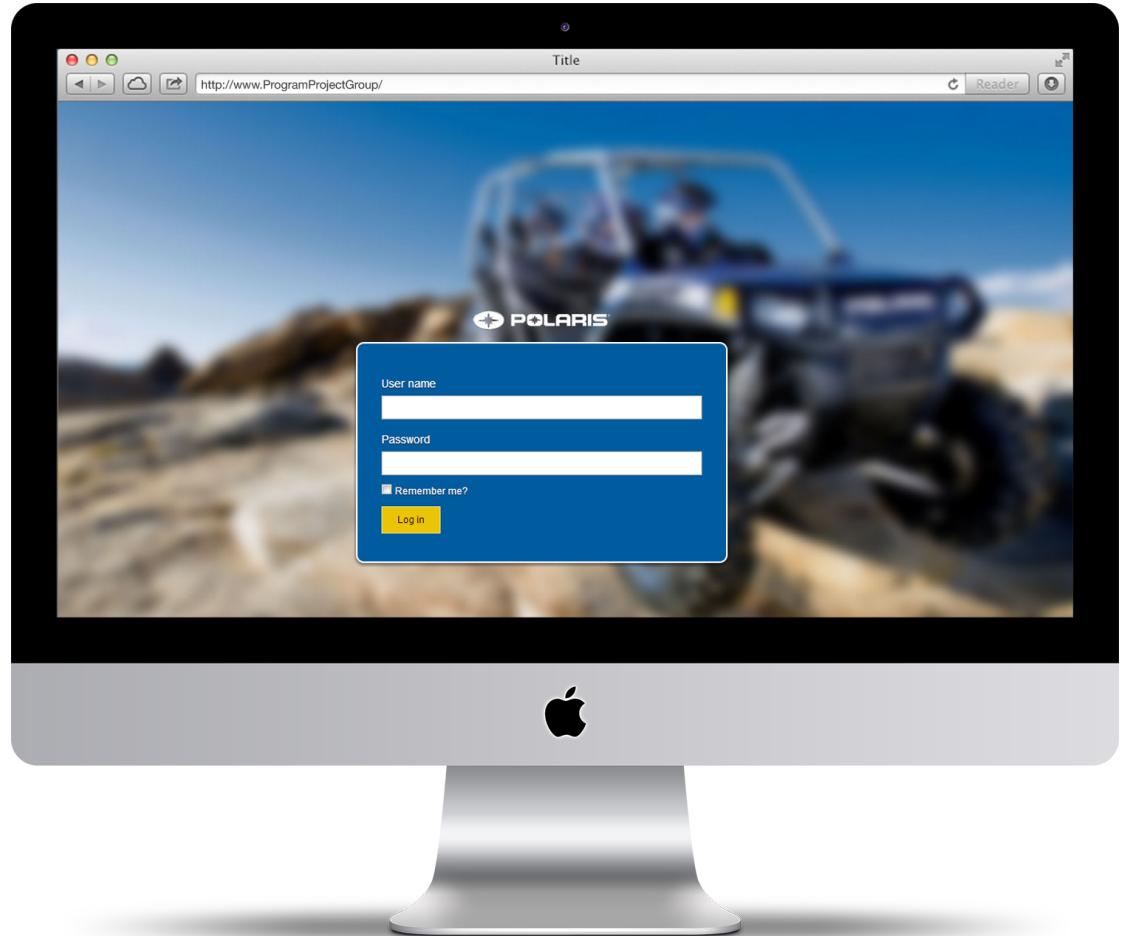


Login

New feature in system

Users will be able to use single testing system
using single login screen

Users will get access to the system based on their
role type

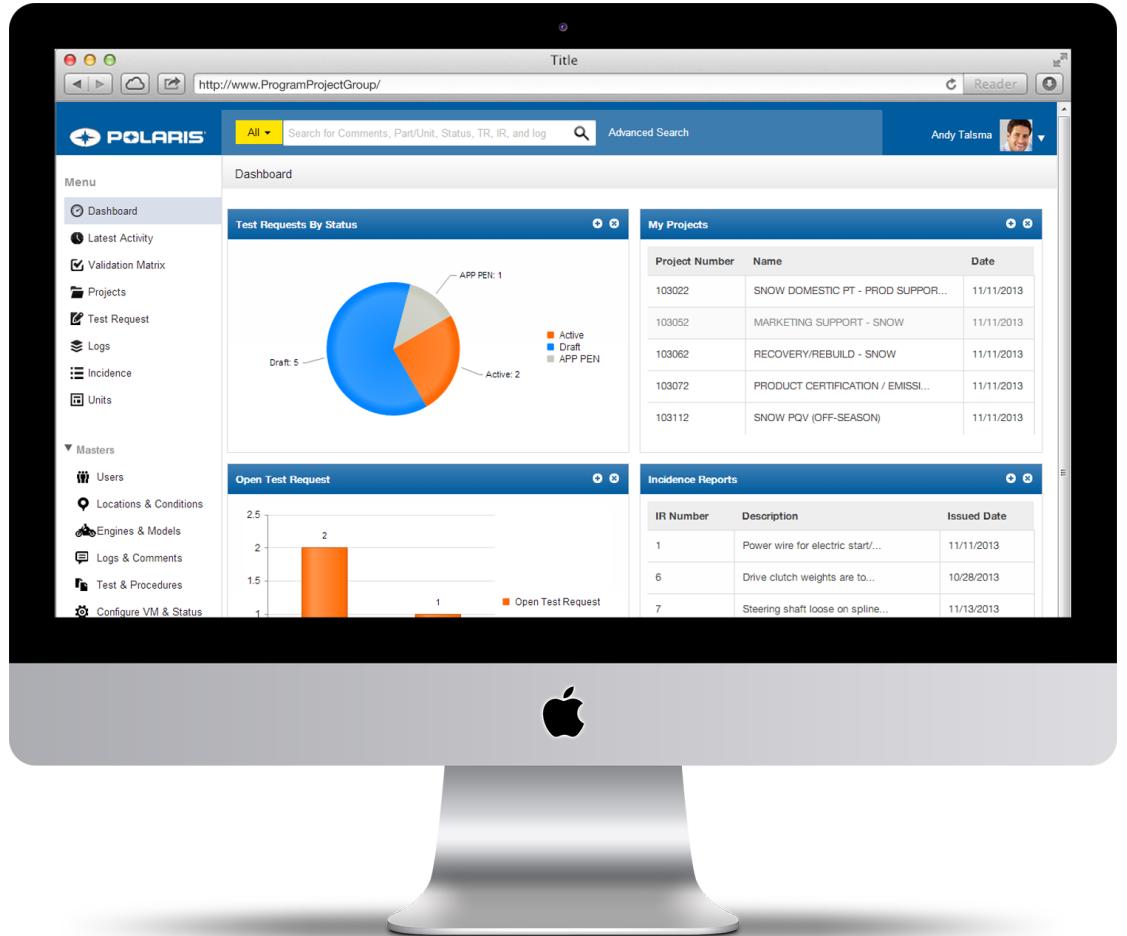


Dashboard

New feature in system

Users will be able to create individual Dashboards with the drag and drop functionality using customized widgets

Asset for the individual where they can find all relevant on single location

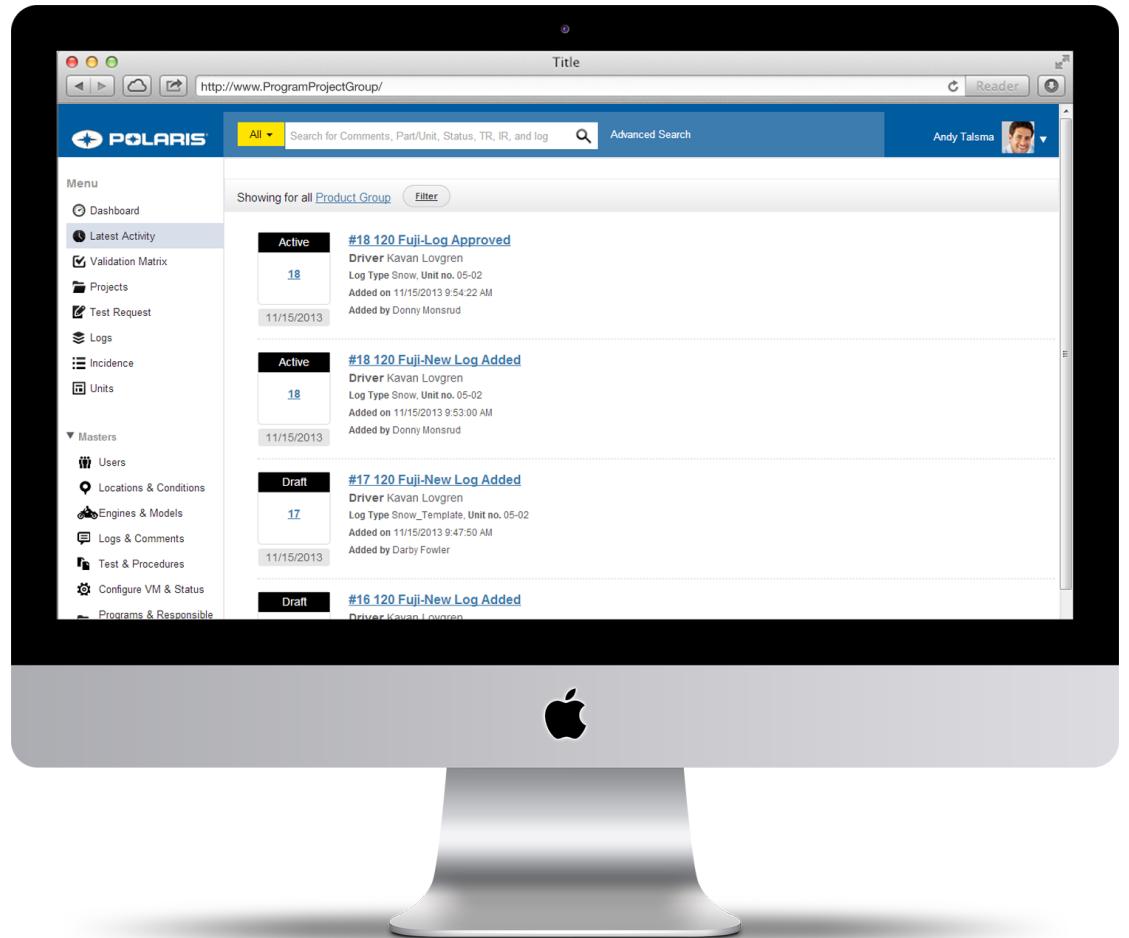


Latest Activity

New feature in system

Latest activity section is designed with the functionality similar to facebook to get updates on Test request, Logs, Incidence report, Units and Projects

Facility to directly Approve/Reject items where action is required

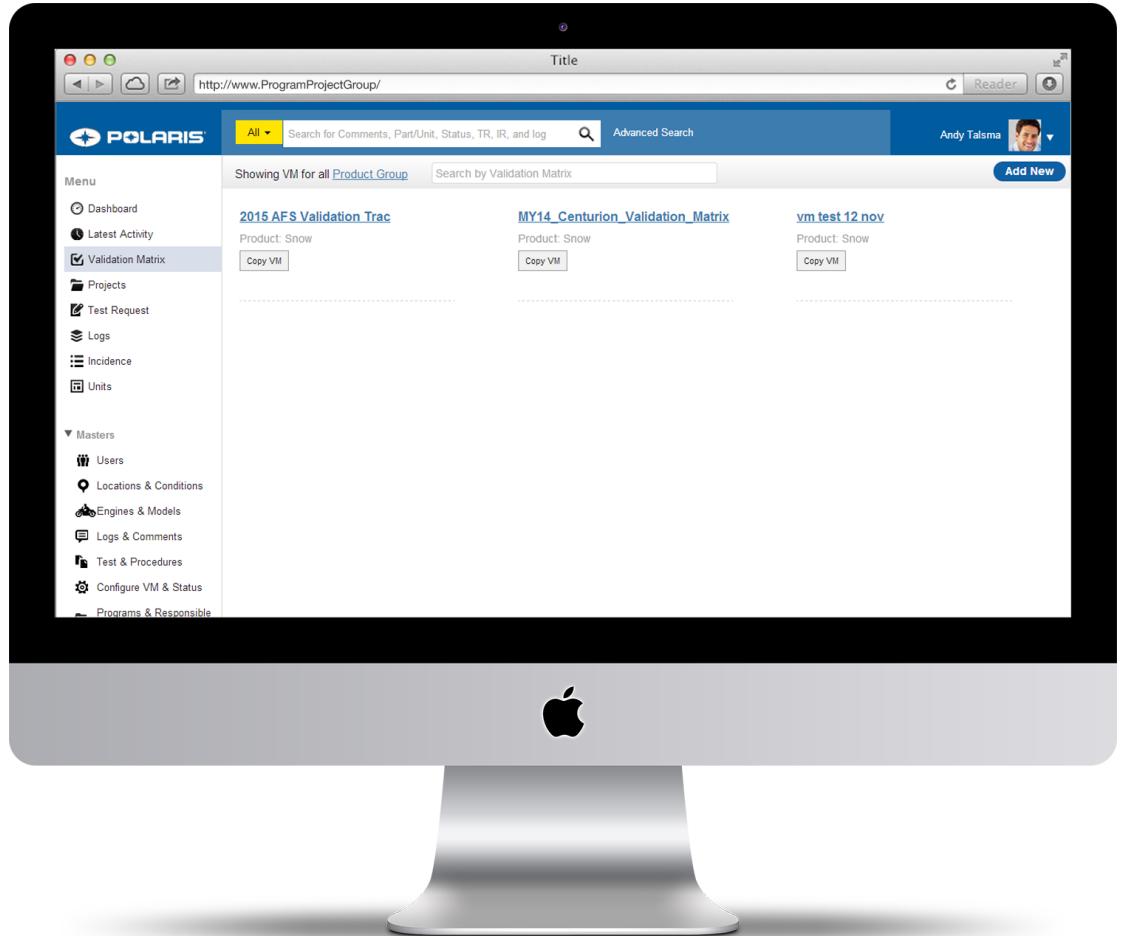


VM (Virtual Matrix)

New feature in system

Validation Matrix is a set of Test procedures, and will allow the user to create Projects and Test request at just one click

Test requests can be automatically generated from the selected Validation Matrices for a vehicle or part

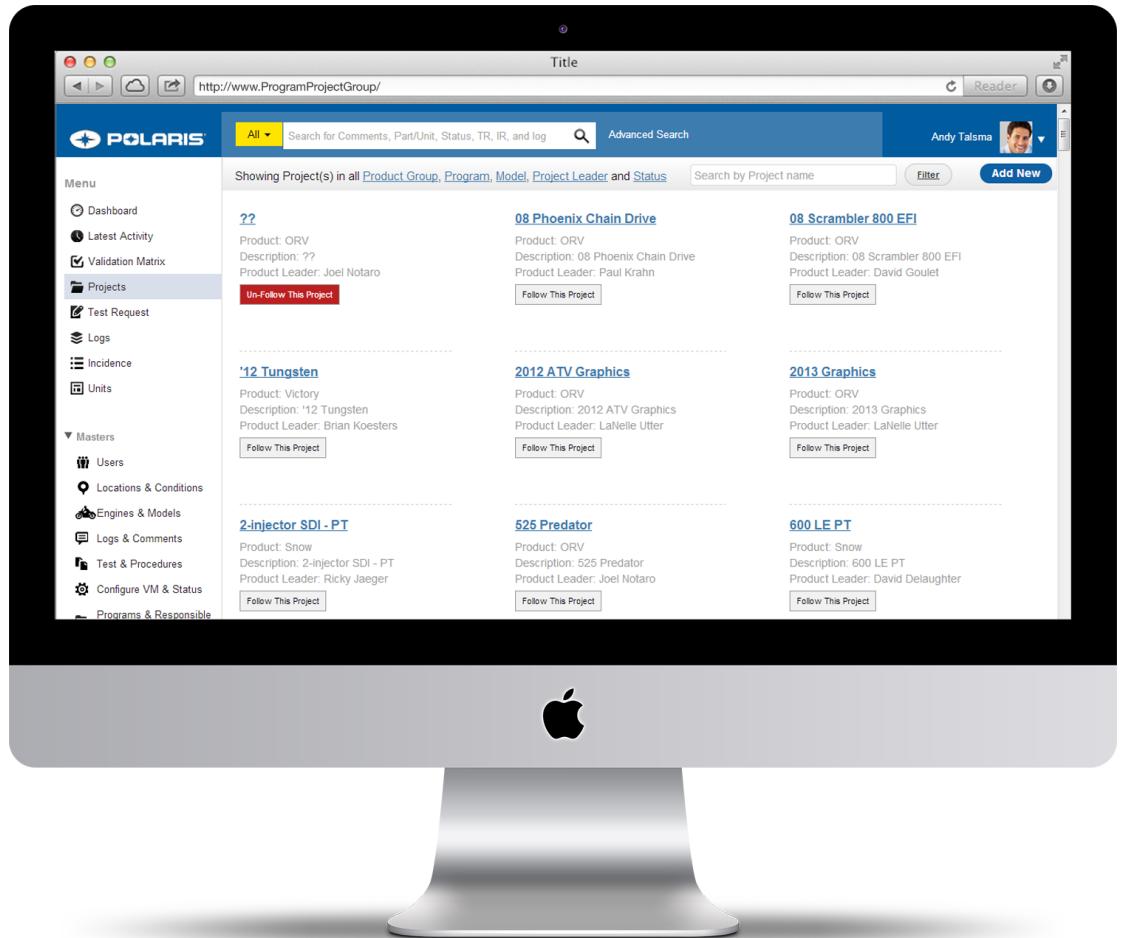


Projects

New feature in system

Common location to see all the activities going on in the system

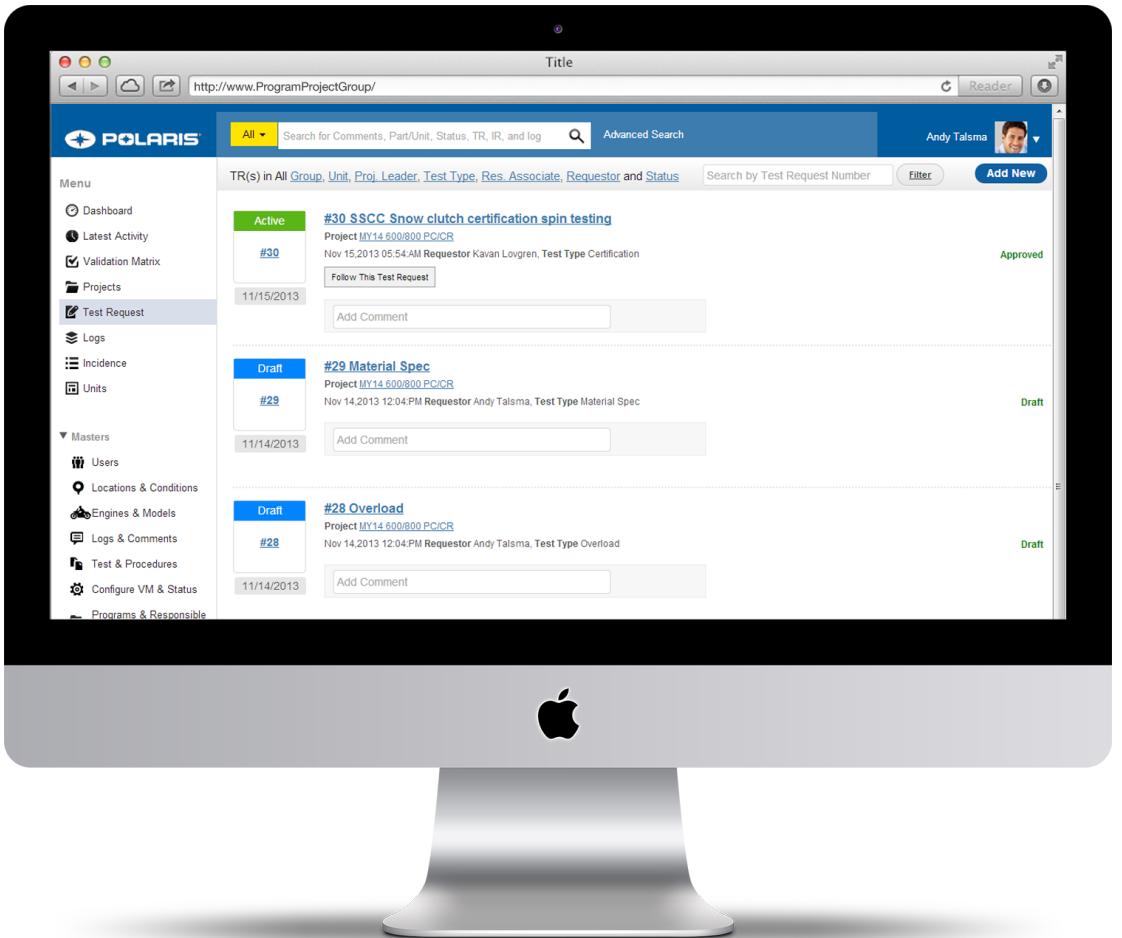
User can Follow/Unfollow any Projects where he is the part/team member. When user follows any project he/she will get the updates in latest activity



Test Request

New feature in system

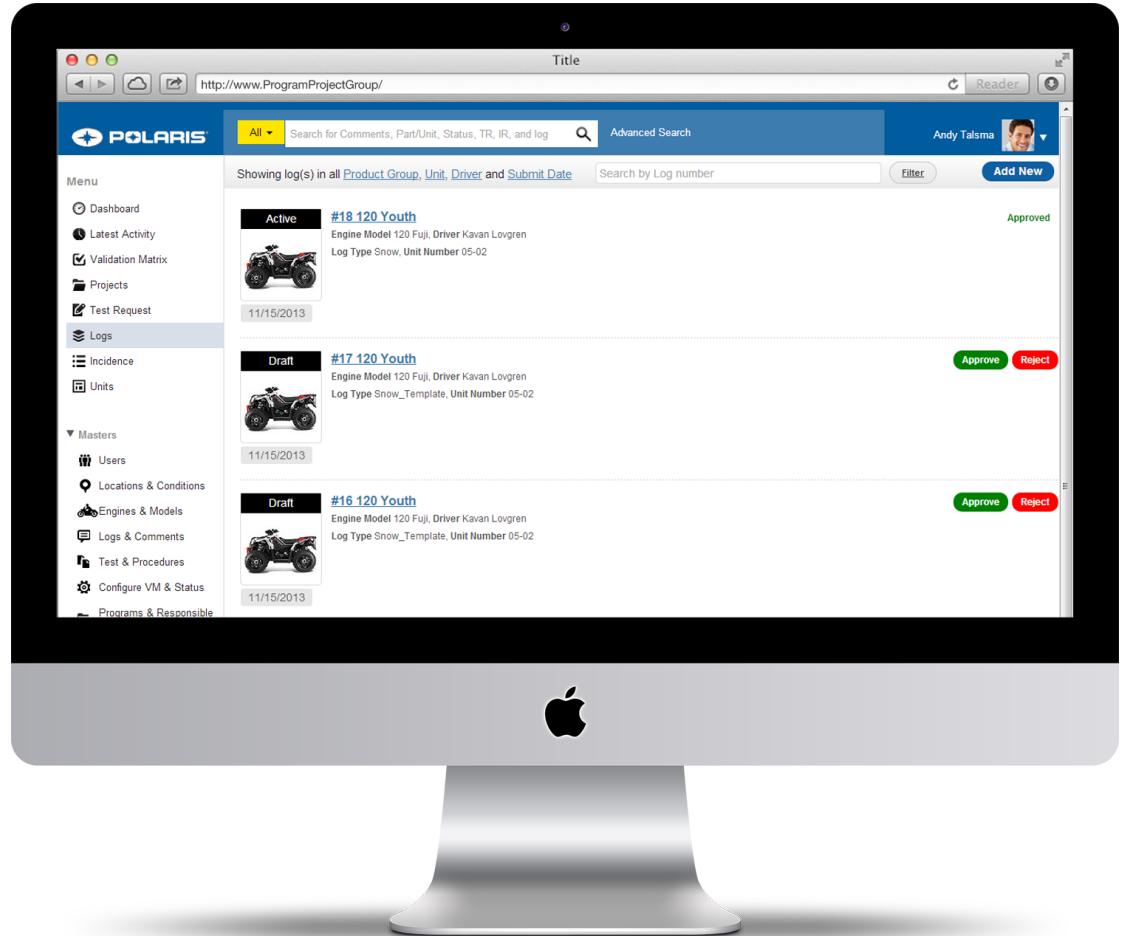
User can Follow/Unfollow any Test Request where he/she is part/team member. When user follows any Test Request he/she will get the updates in latest activity



Logs

New feature in system

Approvers can approve/Reject Log from here
with one click

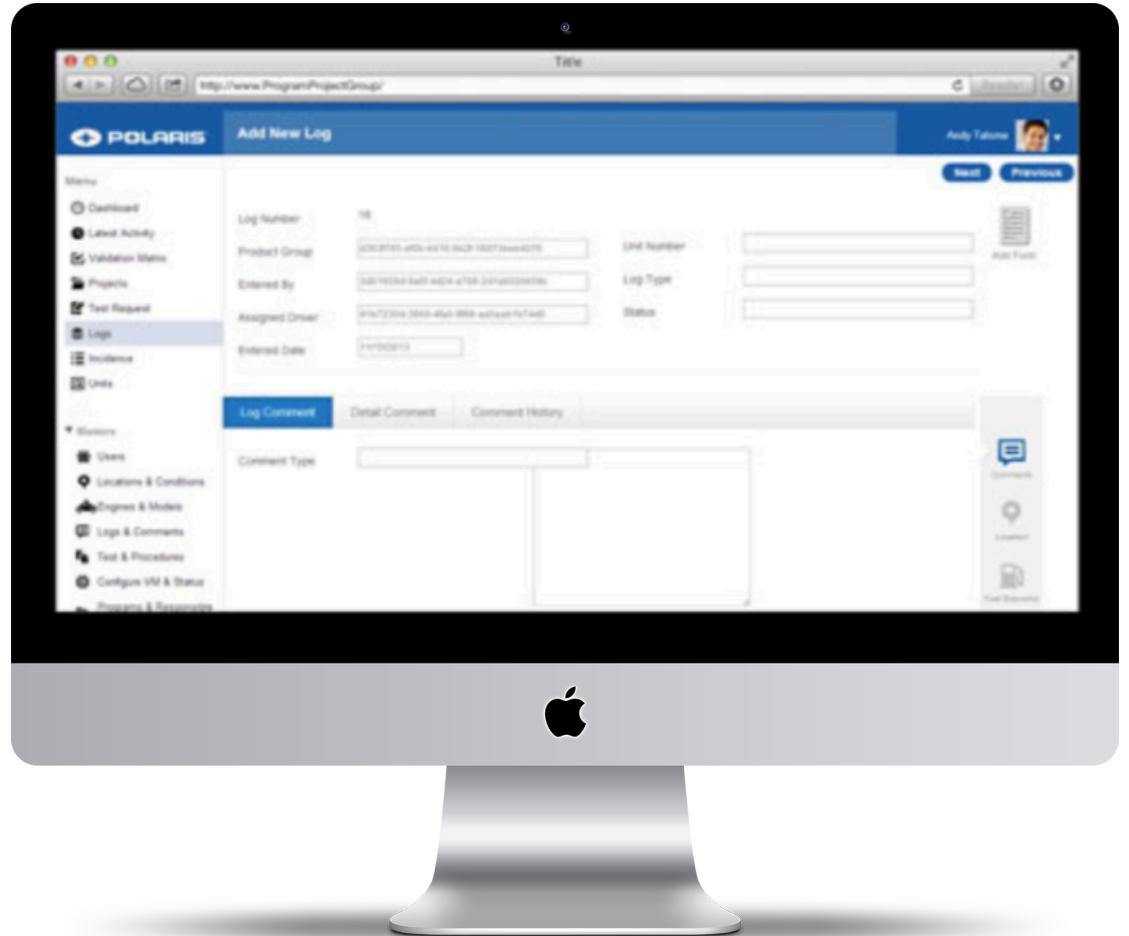


Logs

New feature in system

Drivers can enter Daily Logs in form of Log Comments or Detailed Comments from single screen; Log Comments will be attached to Logs, while detailed comments will be recorded as findings

Log comments will be used to generate IR (Incidence Report)

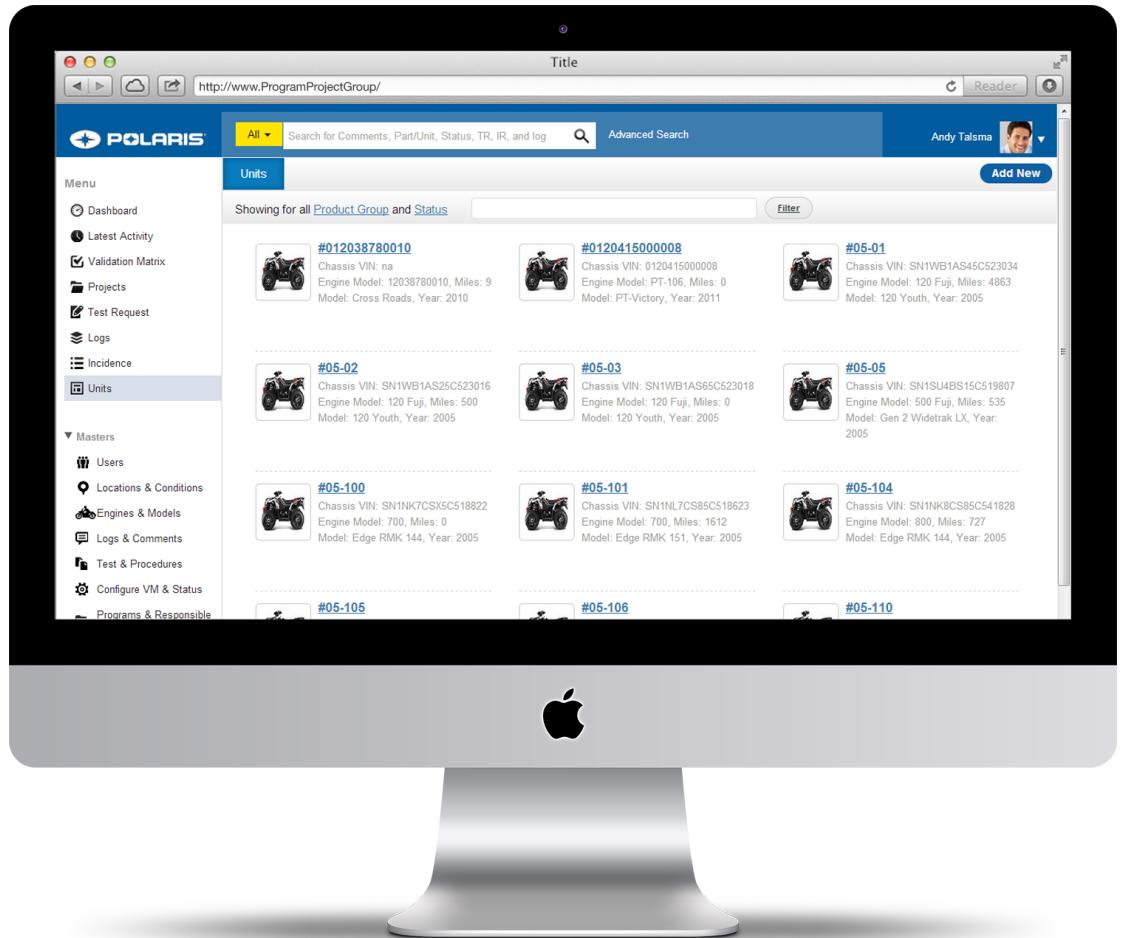


Units

New feature in system

Will give detailed status of Unit in system, along with all the relevant history of activities on it

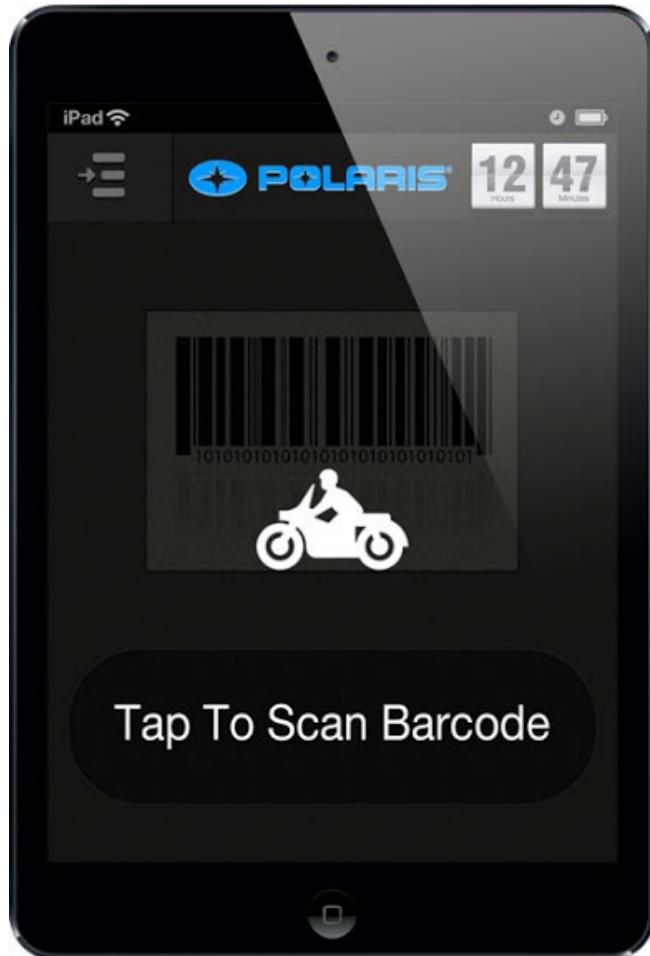
Major leap into the system to make it user friendly



Scan Code

New feature in system

Driver will be able to scan Vehicle Code using the iPad to easily get the test details with automation



Assigned Unit

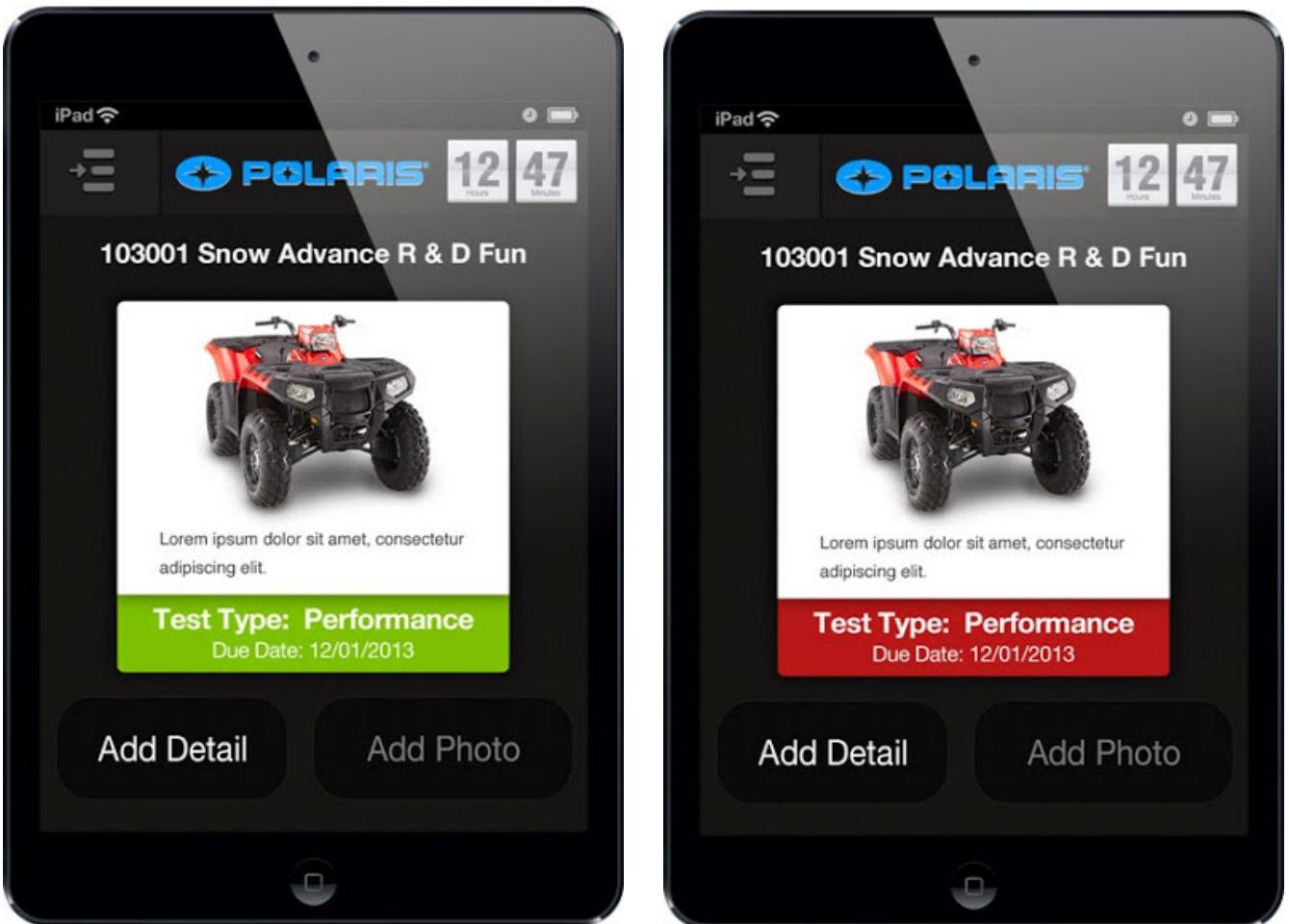
New feature in system

Driver will get information of the Test Request for assigned unit; with the color cue it will be easy for them to understand the priority to schedule their activity

Red – Overdue Test

Green – Assigned Test

Yellow – Due date approaching in two days for assigned test



Add Details

New feature in system

This screen will allow the driver to quickly add the relevant information in the system without using pen & paper. UI controls are specifically designed in big size (80 pixel) to avoid error in entering information



Add Photo

New feature in system

Driver can easily and quickly report the incidence/trouble faced on a unit, this is considered a major leap in system; Drivers were forgetting to report with manually entry of incidence at the end of the test



Unit Profile

New feature in system

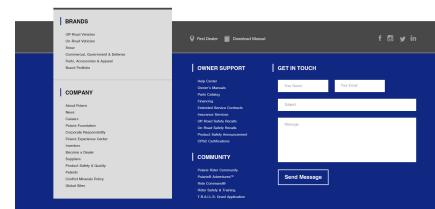
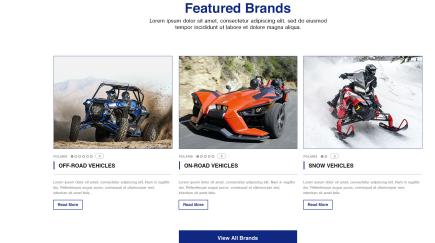
Detailed information of Unit/Part assigned at the tip of a finger without manual information searching in papers/logs



Website Home Page

Redesign proposal for web layout

Easy section categorization and revised information architecture for noun based content structure



Thank you!



Thank you!

