

Prince George's County Dept. of Parks & Recreation

# Asset Management UX Design Study

Team Members:

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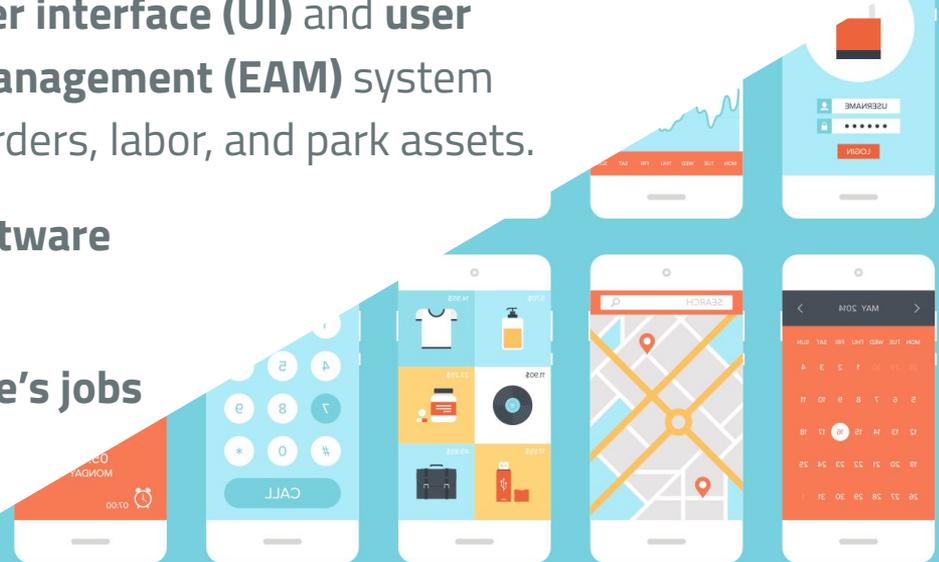
# About Us



We are a team of students from the University of Maryland that have been working with the Prince George's County Department of Parks & Recreation to improve and innovate the **user interface (UI)** and **user experience (UX)** of the **Enterprise Asset Management (EAM)** system used by the department to manage work orders, labor, and park assets.

**We find ways to make mission-critical software simple, intuitive, and easy to use.**

**In short: We're here to help make everyone's jobs a little easier.**

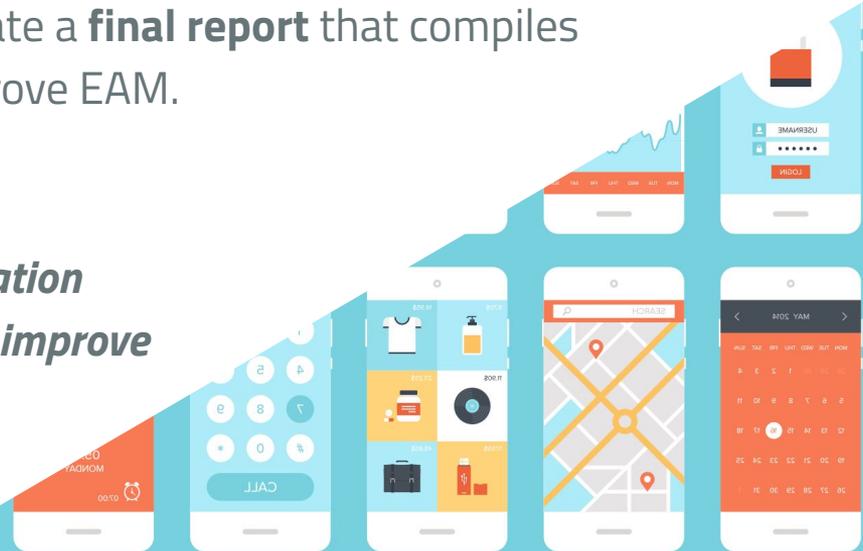


# About our Project

We have been brought onboard by the **Prince George's County Department of Parks & Recreation** as student UX consultants to help evaluate the usability of EAM. Our tasks were to **interview stakeholders**, analyze the **application interface**, and create a **final report** that compiles our findings and recommendations to improve EAM.

## Our mission:

*Understand user needs, evaluate the application interface, and report our findings on how to improve the application to best fulfill those needs.*





Record View Checklist x Activities x Schedule Labor x Book Labor x Comments x Tools x Parts x Repair Parts x Closing x More

Informational Only\*:

Comments / Documents:

Work Order: <Auto-Generated>

Type: Service Request

Class:

Status: Work request

Park / Building / Asset:

Location:

Work Address:

Physical Location\*:

Requestor Type\*:

Access Location:

Who To Contact\*:

Operating Hours\*:

Contact Name\*:

Region\*:

Phone Number\*:

Sched. Start Date: 04/28/2021

Maint Area / Division\*:

Master Park:

Division Work:

Master Park Name:

View GIS Map

Event Log

Generic Version Notes:

Organization: M-NCPPC

Date Created:

Route:

Priority:

Start Date:

Sched. Start Date\*:

Sched. End Date: 04/28/2021

Date Completed:

Created By: 910019

Authorizer\*:

Authorizer Name\*:

ACR / Old SmartParks\*:

Problem Code:



# The Starting Line

At the outset of this project, we were given two key areas to focus on for our UX improvements and design recommendations.

These areas were **user adoption** and **data quality**.

**User Adoption:** *The rate at which users “pick up” the software and decide to use it on a regular basis as part of their daily workflow.*

**Data Quality:** *The reliability, consistency and accuracy of the data that is entered into the software.*

# Objectives

As we began our design study, we set out to achieve 4 primary goals with our work. These objectives were to:



- ① **Identify existing usability issues within EAM**
- ② **Formulate realistic, workable solutions for each issue**
- ③ **Understand the needs of user groups who rely on EAM to do their work**
- ④ **Ensure that our recommendations enable business insights to drive future improvement**

# Methods

For our design study, our team utilized **user interviews**, **survey data**, and **direct engagement** with the EAM interface and EAM users to gauge the system's user-friendliness.



# Project Roadmap!

Create project plan,  
introduce team to client

1

Interview stakeholders to  
gauge end user sentiment,  
understand user needs

3

Create our final report  
detailing our UX  
recommendations

5

Bust out the champagne  
and balloons

7

Gain access to EAM  
environment for direct  
evaluation

2

Compile our findings from  
interviews, surveys and  
UX evaluations

4

Present our findings to  
Parks executives, deliver  
final report

6

YOU  
ARE  
HERE

**How does EAM stack up  
across different devices?**

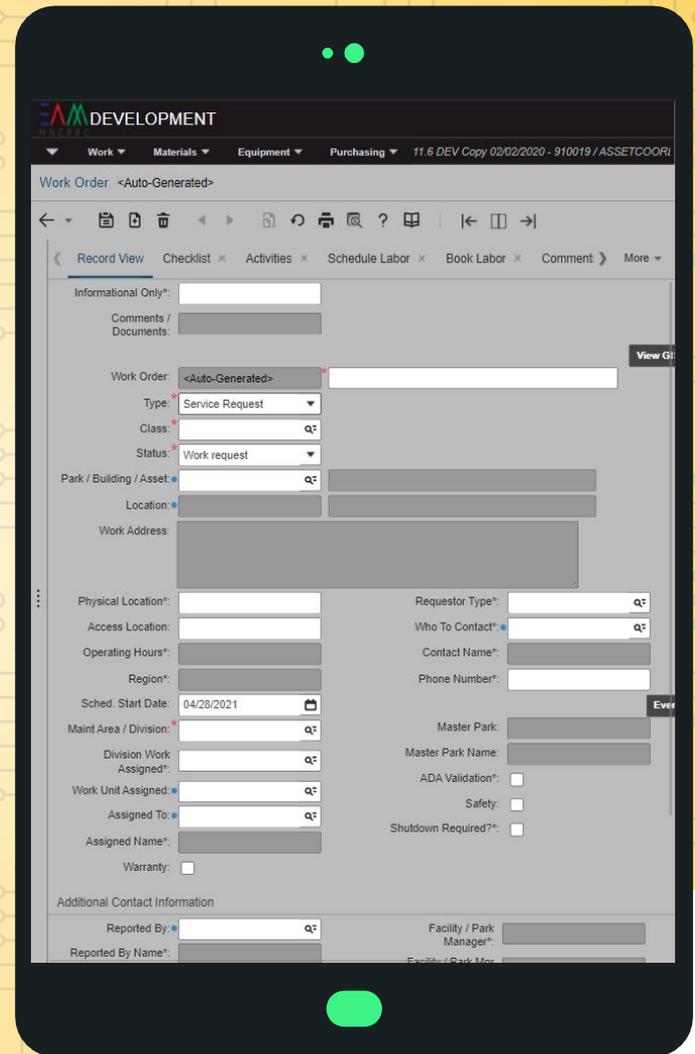
# Desktop View

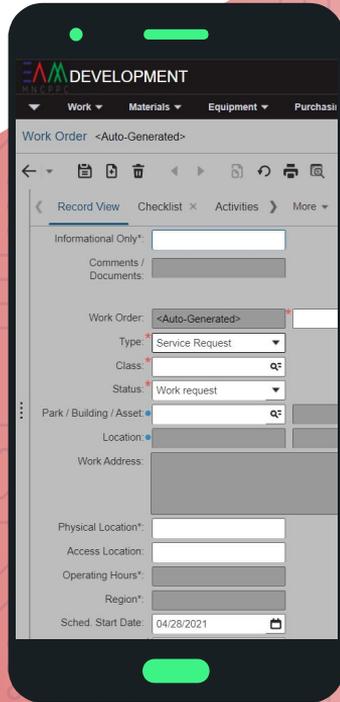
- ⦿ Too many options! This page has 85 data entry fields alone.
- ⦿ Spacious, but cluttered
- ⦿ Text entry fields are vectors for poor quality data
- ⦿ Flawed, but works
- ⦿ By far the most common way EAM is currently used

The screenshot displays a software interface for 'EAM DEVELOPMENT' with a dark header. Below the header, there are navigation tabs for 'Work', 'Materials', 'Equipment', and 'Purchasing'. The main content area is titled 'Work Order <Auto-Generated>' and contains a complex form with many input fields. The form is organized into several sections: 'Informational Only\*', 'Comments / Documents', 'Work Order' (with fields for Type, Class, Status, Park / Building / Asset, Location, and Work Address), 'Physical Location\*', 'Access Location', 'Operating Hours\*', 'Region\*', 'Sched. Start Date', 'Maint Area / Division', 'Division Work', 'Generic Version Notes', 'Organization', 'Date Created', 'Route', 'Priority', 'Start Date', 'Sched. Start Date\*', 'Sched. End Date', 'Date Completed', 'Created By', 'Authorizer\*', 'Authorizer Name\*', 'ACR / Old SmartParks\*', and 'Problem Code'. There are also buttons for 'View GIS Map' and 'Event Log'. The interface is cluttered with many fields, some of which are disabled (greyed out).

# Tablet View

- Very similar to desktop layout
- Some elements are no longer visible due to smaller screen
- Horizontal scrolling is required to see every text entry field
- Occasionally used in the field by maintenance staff





# Mobile View

- **Very difficult to use**
- **Cramped layout makes it impossible to see everything you need at once**
- **Text entry fields are small, difficult to select**
- **User has to navigate page up, down, sideways and diagonally**
- **Is not used by anyone we interviewed**

# What did this tell us?

- EAM user activity is predominantly desktop-based
- Our work towards improving EAM should prioritize the experience on desktop over tablet and mobile layouts
- With this in mind, we took a closer look at EAM's desktop layout.

### Inbox

Folder: To Do List

There are no records to display.

### Charts

Select a chart type.

**Chart Controls**  
Organization: M-NCPPC  
Chart Type:  
Chart Period: Months  
Show Year/Year:

### KPIs

No KPIs available.

Resize KPIs

Inbox

Folder: To Do List

There are no records to display.

Charts

Select a chart type.

Chart Controls

Organization: M-NCPPC

Chart Type:

Chart Period: Months

Show Year/Year:

This is the current EAM welcome screen. It is the first thing users see when they log in. However, it does not contain features and info that are needed by several user groups.

KPIs

No KPIs available.

Resize KPIs

To access the features they need, maintenance workers must click this drop-down menu and navigate to the "Work Orders" section, which is relatively far down the list and not immediately obvious to new users.

- Work
- Setup
- Reports
- Inspections
- WO Planning
- Process
- Projects
- Work Orders**
- Book Labor By Employee
- Create Work Request

no records to display.

Select a chart type.

Chart Controls

Organization: M-NCPPC

Chart Type: [dropdown]

Chart Period: Months

Show Year/Year:

KPIs

No KPIs available.

Resize KPIs [slider]

Work Order <Auto-Generated>



Record View Checklist x Activities x Schedule Labor x Book Labor x Comments x Tools x Parts x Repair Parts x Closing x More v

Informational Only\*:

Comments / Documents:

Work Order: <Auto-Generated>

Type: Service Request v

Class\*:

Status\*: Work request v

Park / Building / Asset:

Location:

Work Address:

Physical Location\*:

Access Location:

Operating Hours\*:

Region\*:

Sched. Start Date: 04/28/2021

Maint Area / Division\*:

Division Work:

Requestor Type\*:

Who To Contact\*:

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Master Park:

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Authorizer Name\*:

ACR / Old SmartParks\*:

Problem Code:

View GIS Map

Event Log

This is a modified configuration of EAM created by an end user we interviewed that adds shortcuts, work order information and a data visualization dashboard to the welcome page.

### Inbox

Folder: Maintenance

- Bock Road Grounds WO's 67
- WOs Assigned to Me \* 0
- Booked Hours - Today\* 0
- Scheduled Activities\* 0
- Work Requests Submitted\* 16
- Project Requests\* 0
- Work Requests - To Authorize\* 0

### Charts

#### KPIs

Resize KPIs [Slider]

0

Notifications

0 100

Open P.G. Citizen Requests - Southern, 43

Facilities - Out of Service to Public, 25



Original - MM Projects Completed this FY, 0 %

0 100

BreakdownFix vs Total WO's, 0 %

0 500

Pending WO> 5 Days, 0

Inbox  

Folder: Maintenance

- Bock Road Grounds WO's 67
- WOs Assigned to Me \* 0
- Booked Hours - Today\* 0
- Scheduled Activities\* 0
- Work Requests Submitted\* 16
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Charts

KPIs  

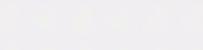
Resize KPIs 



Notifications



Open P.G. Citizen Requests - Southern, 43



Facilities - Out of Service to Public, 25



Original - MM Projects Completed this FY, 0 %



BreakdownFix vs Total WO's, 0 %



Pending WO > 5 Days, 0

These panels actually do stuff now! Previously blank panels now include data visualizations, and organize incoming work orders through a series of user-set filters configured in EAM.

### Inbox

Folder: Maintenance

- Bock Road Grounds WO's 67
- WOs Assigned to Me \* 0
- Booked Hours - Today\* 0
- Scheduled Activities\* 0
- Work Requests Submitted\* 16
- Project Requests\* 0
- Work Requests - To Authorize\* 0

### Charts

### KPIs

Resize KPIs

- Notifications
- Open P.G. Citizen Requests - Southern, 43
- Facilities - Out of Service to Public, 25
- Original - MM Projects Completed this FY, 0 %
- BreakdownFix vs Total WO's, 0 %
- Pending WO> 5 Days, 0

Important pages that were previously hidden behind drop-down menus now have shortcuts at the bottom of the welcome page. The user can instantly swap from one page to another with a single click.

# The best part?

**This modified page was created entirely with tools that exist in the current EAM production environment.**

**All it took was a few configuration tweaks to dramatically improve the way EAM functions and feels.**

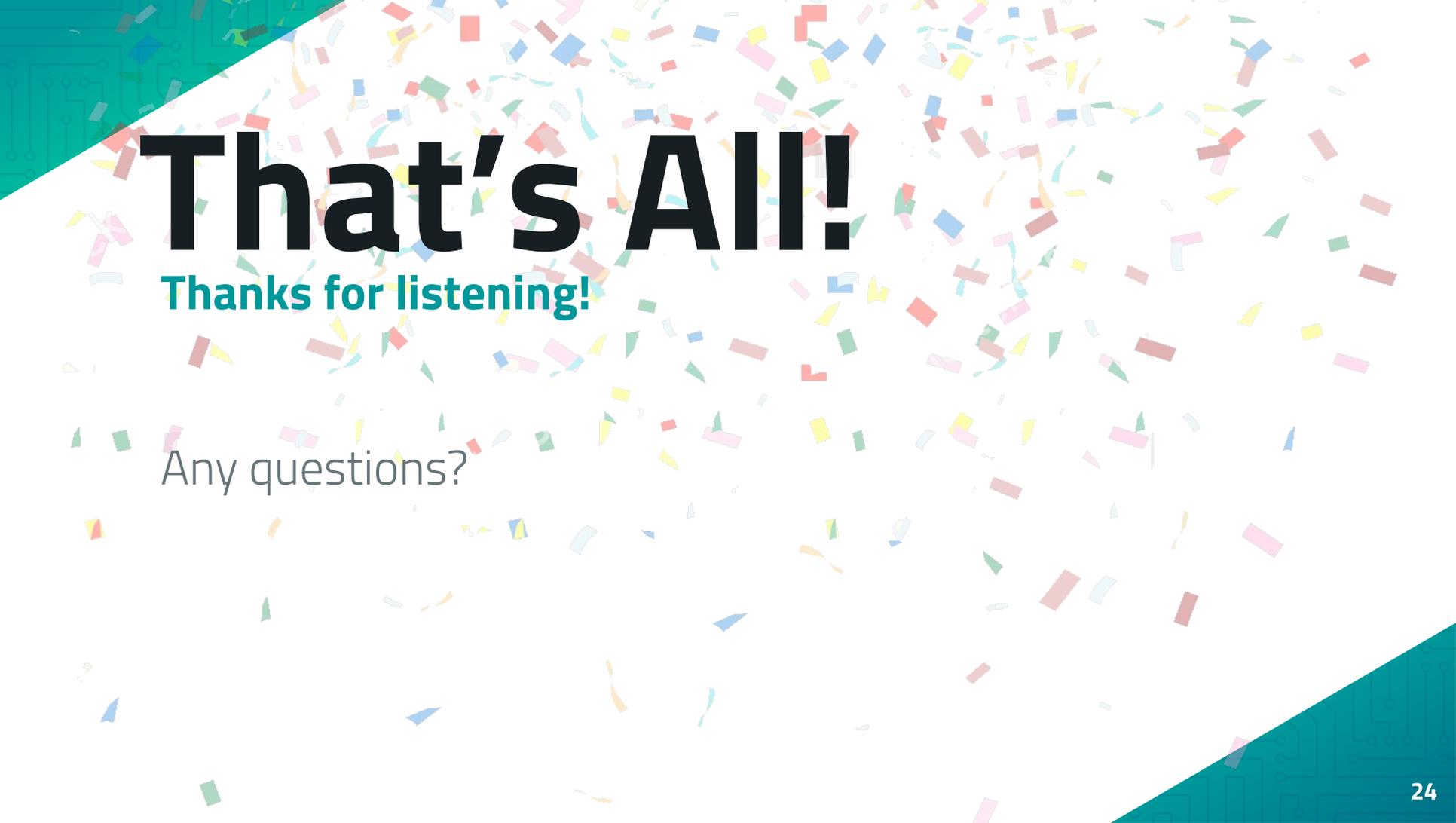
# Design Feedback for EAM

- **Keep it simple.**
- **Minimize the number of clicks/taps required to perform common tasks.**
- **Customize the default EAM Welcome Page to be more user friendly.**
- **Leverage different designs for different user groups.**
- **Make EAM mobile friendly.**
- **Continue employee outreach on improving and understanding EAM.**

# Where to from here?



- Unfortunately, our involvement with this project ends with our Spring semester.
- **However, our findings can be used and implemented by the Dept. of Parks and Recreation to dramatically improve the experience of using EAM long after the end of our design study.**
- We believe our recommendations will make EAM **simpler, more intuitive, easier to use, and more effective** than it has ever been in the past.
- Going forward, our findings will inform both the future work of the Department and future UX Design Studies our team members will perform in the future
- This experience was a valuable example of what a UX Design Study is like in the real world, and we all learned a ton



# That's All!

Thanks for listening!

Any questions?