

Multipurpose Mobile Signage Application

UX and Database Design Portfolio



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A comprehensive sign data collection application and database solution for real-estate and property holdings.

SCENARIO

In 2018, the University of Pittsburgh Medical Center (UPMC) embarked on a 6-year, \$60 million systemwide exterior signage rebranding program for all 1,700-plus properties owned or leased by UPMC, including hospital campuses, outpatient centers, medical buildings and satellite offices. The program coincided with the large health system's recent marketing campaign which involved a new logo and color scheme, a new corporate tagline, and an increased presence in television, print and internet advertising.

Along with the fact that most signage at UPMC facilities had not been rebranded or even maintained for over 25 years, the company was about to complete acquisition of the Susquehanna Health System in Central PA, the Pinnacle Health System in and around Harrisburg, PA, and the Western Maryland Health System in Cumberland, MD, each comprised of multiple large hospitals and hundreds of satellite offices.

A new way to catalog and replace hundreds of thousands of individual signs was clearly a priority for the fledgling sign rebranding program.

GOALS

- Move from archaic and inflexible project management methods (usually a pen & paper, a tape measure and a phone camera) to a mobile digital system that would reduce on-site and after-visit time by 70%.
- Organize 1,700+ individual sites into an easily identifiable, geographical region-based, unique alphanumeric code.
- Scale and grow the system with an ever increasing amount of new and existing properties.
- Make it easy and convenient for project managers and design contractors to photograph, obtain sign and building dimensions and take notes for each individual sign on a property.
- Streamline the process of tracking and managing project phases, tasks, deliverables, etc.
- Host the applications on a Cloud server so everyone is able to access the files - wherever and whenever.

SOLUTION

The solution ultimately fulfilled each of the functional requirements. After more than six years, it is being used on a daily basis, though it has gradually transformed over the years.

Users navigate the applications with as few clicks as possible, and I strategically designed the layouts to minimize manual entry. Users generally respond positively to software that does not hinder their work, so it had to be fast. It also needed to work on the types of devices they prefer, whether it be desktops, laptops, tablets, or mobile phones.

The applications have advanced and scaled along with the changing needs and requirements of its users. The mobile app has undergone multiple design iterations since its introduction.

UPMC Signage Team



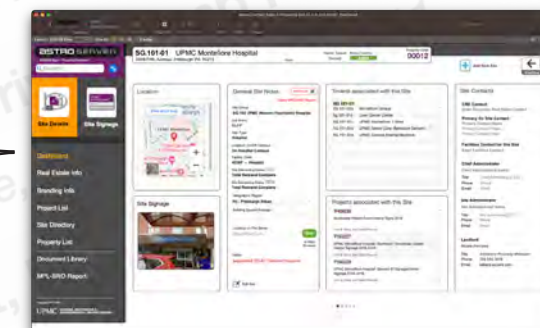
Mobile App



UPMC Healthcare Facilities

- 40 Hospital Campuses
- 350+ Outpatient Centers
- 1300+ Medical Buildings & Satellite Offices

Cloud Database





Mobile Sign & Property Data Collection Application Pittsburgh, PA, 2018-Current

Problem

With over 1,700 individual sites to research and audit as part of UPMC's systemwide rebranding program, our team needed a quick, efficient way to collect visual and clerical information about each sign on a property.

Solution

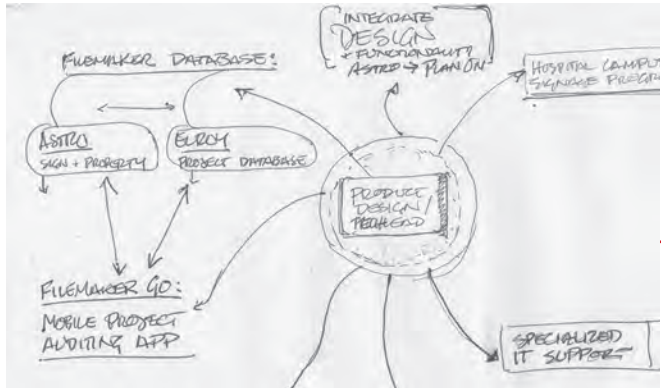
I designed and built a mobile application (which is a full-fledged database) that allows anyone to easily gather and record branding implementation and site specifics on any site. The program is a series of data records that follow a project from inception to completion. Collected data seamlessly integrates wirelessly with a much larger cloud-based sign and property database.

The solution is designed with the individual surveyor in mind regarding human factors, ease of use, modularity, and can be applied to different variations applicable to conditions in any construction field. The sky's the limit...



The application is designed for ease of use in the field by one surveyor.

Development Timeline



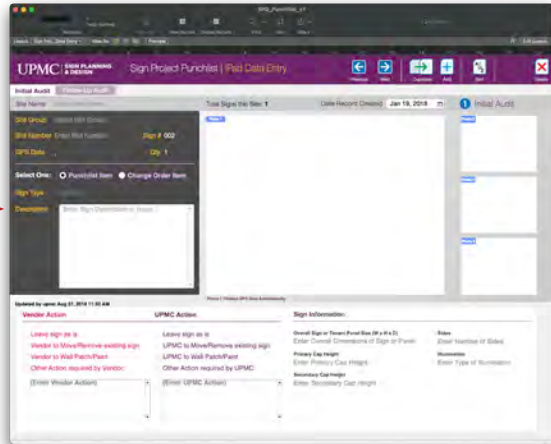
The original "napkin sketch" outlining the concept of an integrated system to handle the enormous task of collecting photographic and many other data points for each individual sign on each property.



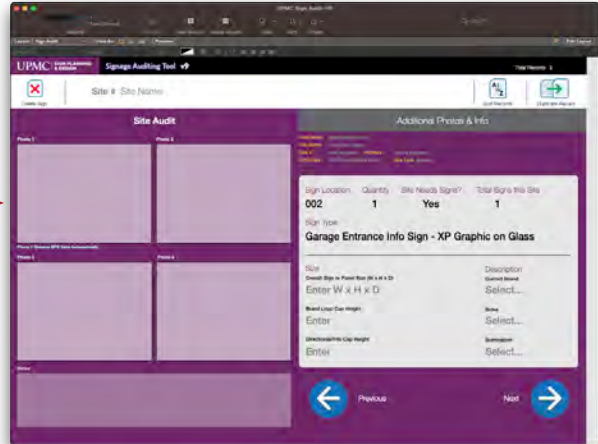
Version 1, Early 2018



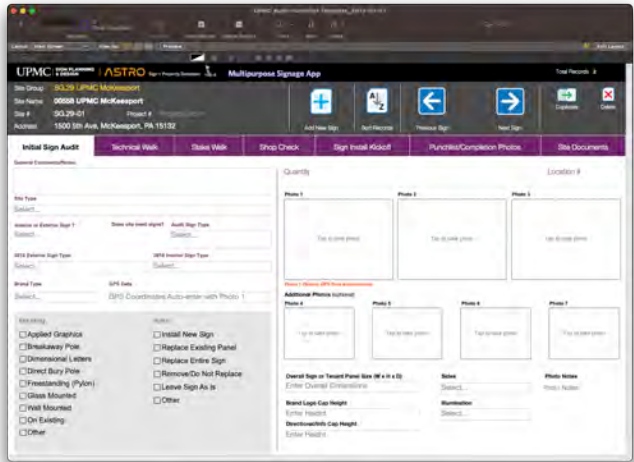
Version 2, Late 2018



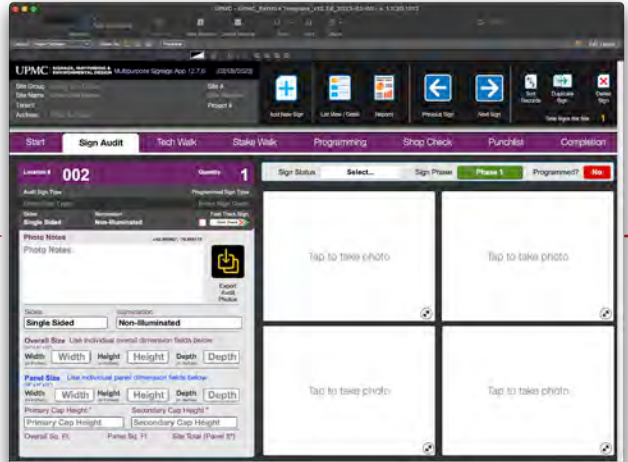
Version 2019



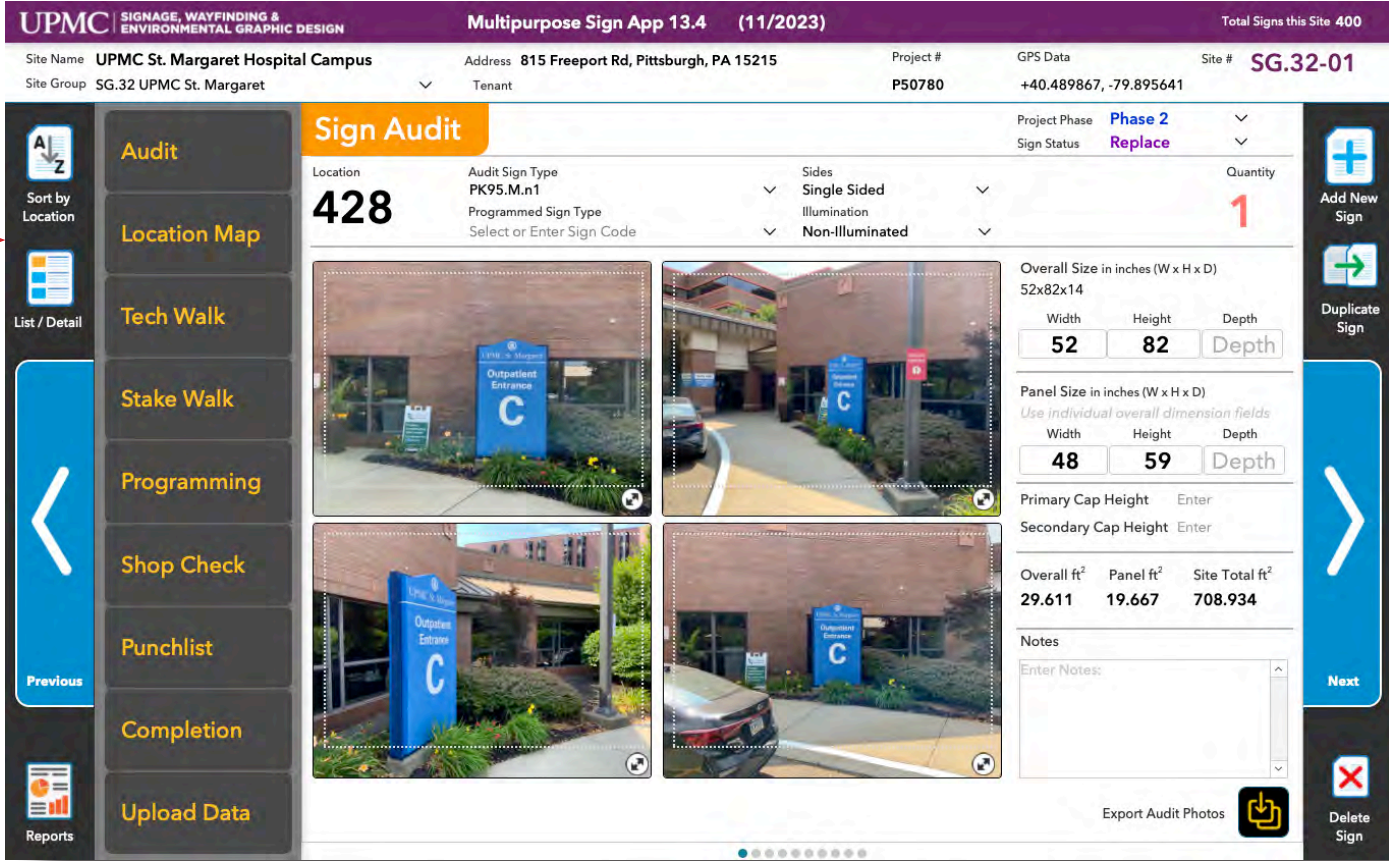
Version 2020



Version 2021



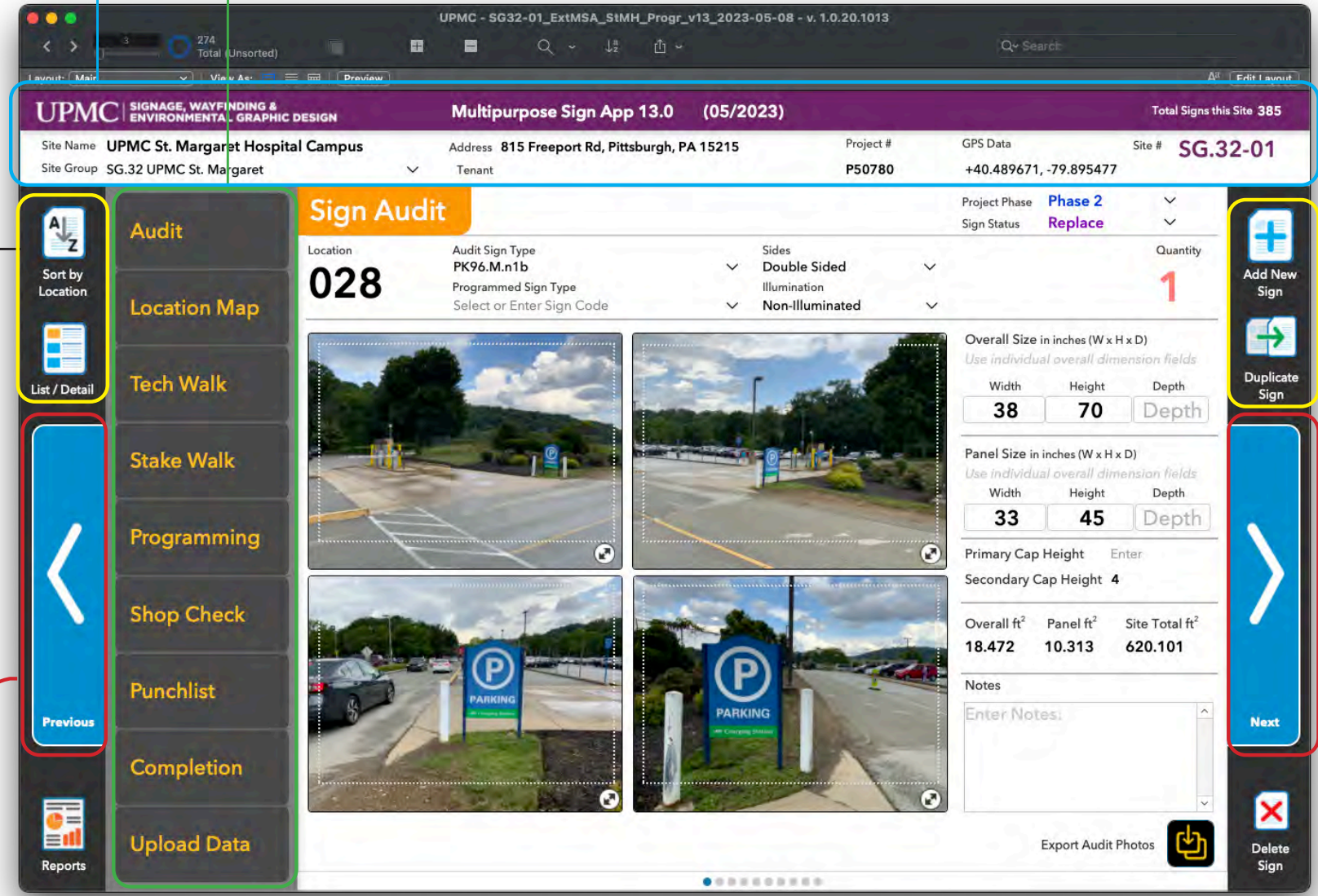
Version 2022



With each progressive version of the app, many new features were added to increase functionality and ease of use.

Latest Features

- 1 Site information area has been compacted to create more space.
- 2 The menu bar has been moved to a vertical configuration closer to the side of the screen for easier navigation.



3 Common functions have been moved to the left and right columns for easier access in the field.

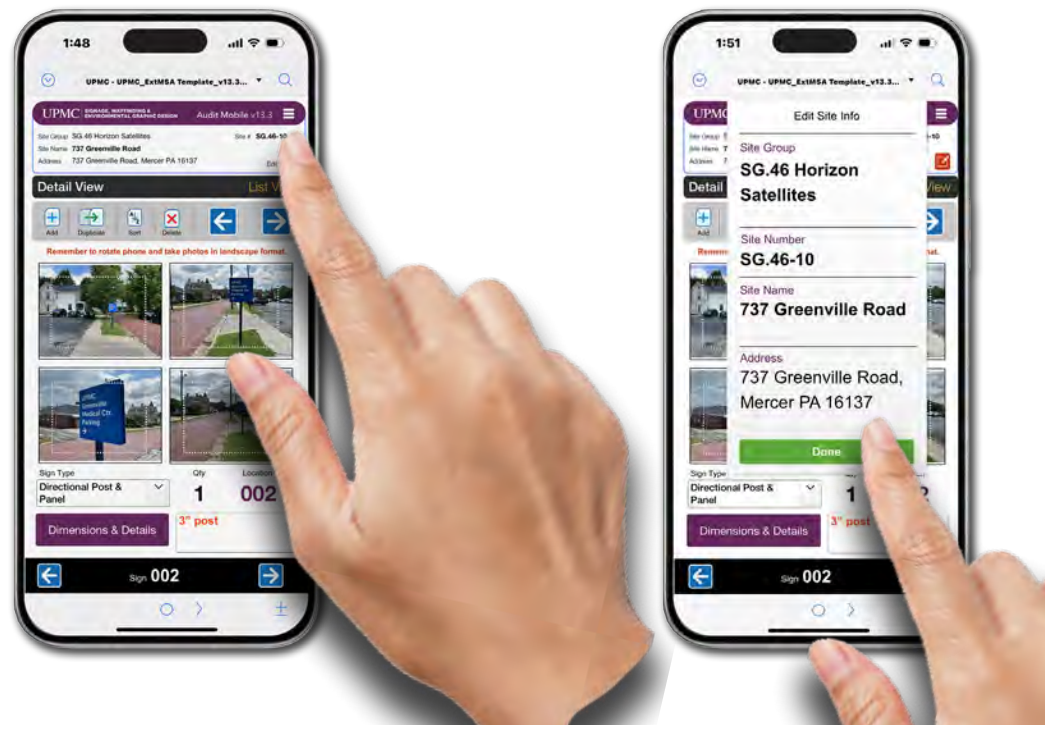
4 Navigation between sign records has been changed to 'Paddle-style' for increased efficiency in the field.

Mobile Data Collection Application - Maintenance & Software Updates
Pittsburgh, PA, 2018-Current

Software is a living product. Regular updates to new functions and the user interface were released continuously to make the product and survey process better with each iteration of the software.

Updates to the latest version include:

- A "paddle bar" layout similar to a game controller to make it easier for the user to scroll between records.
- Ability to sort by location number or sign type.
- Easier exporting of photos - either for one record or all records. A script names each exported photo file with the site number, location number and photo number 1-4.
- New built-in layouts that allow the surveyor to use an iPhone instead of an iPad with the same functionality.

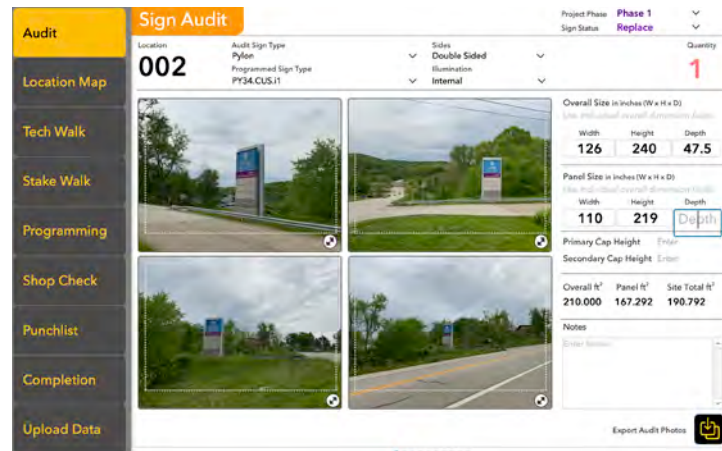


The software automatically detects what device it is opened on, allowing the user to use a mobile phone instead of a tablet.

Project Phase Tabs

Each menu item represents a different phase of the project, and follows the progress from start to finish. During each phase, users can upload project changes to the cloud server in real time.

Initial Audit Screen



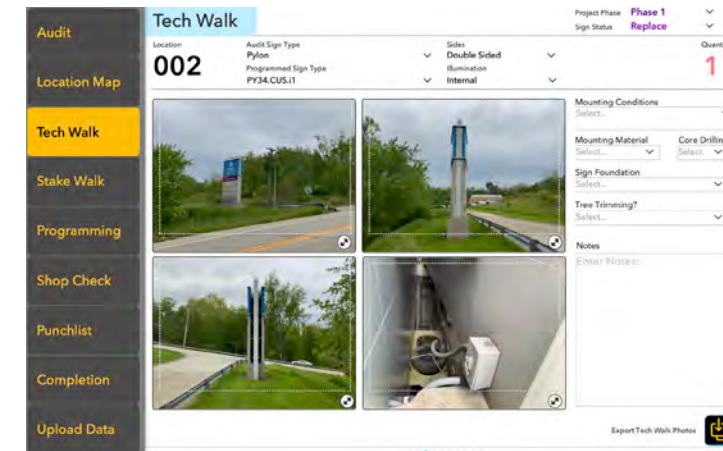
User performs initial sign audit.

Sign Location Map Screen



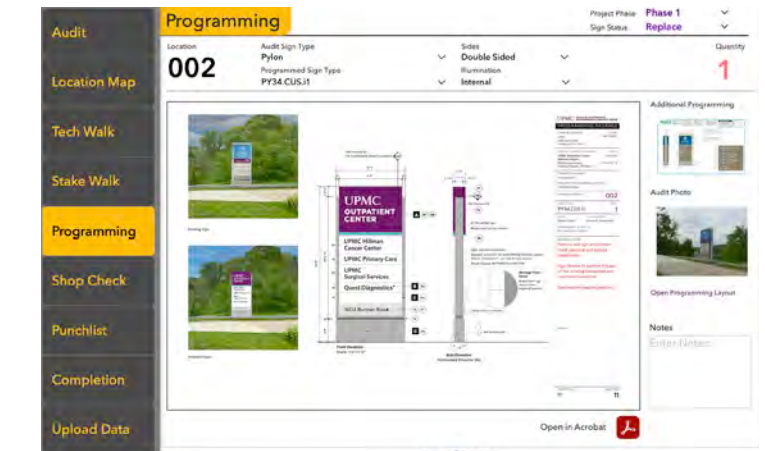
User can insert completed sign location map for easy reference while visiting site.

Technical Walk Screen



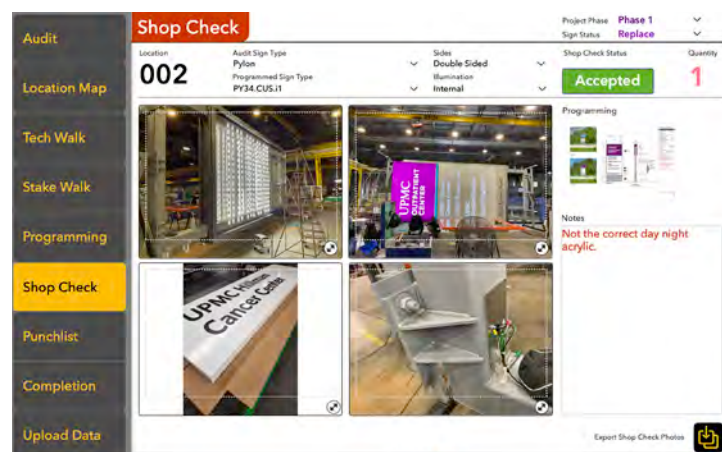
User performs technical walk of site to identify problems to potential fabricator and site admins.

Sign Programming Screen



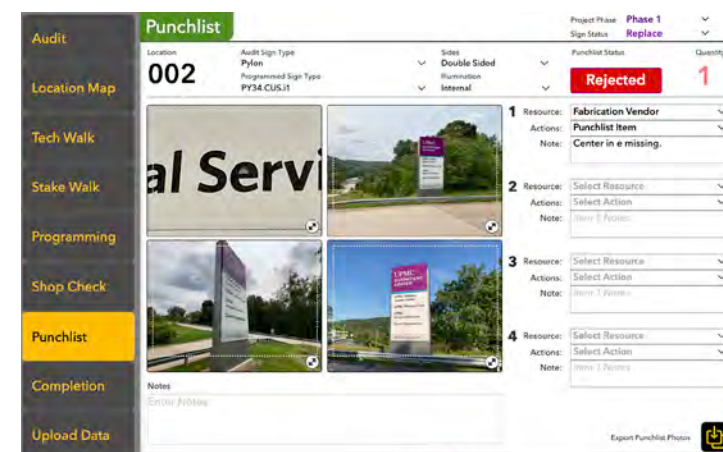
User can insert completed sign programming page for easy reference while visiting site in later phases.

Shop Check Screen



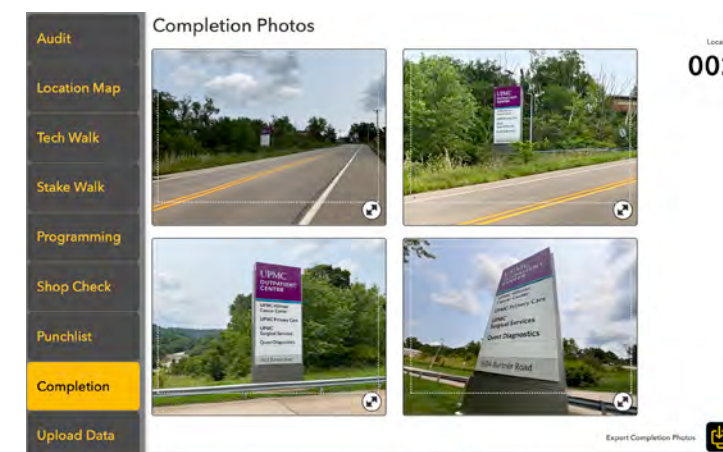
User performs shop check at fabricator and can accept or reject sign progress with fabricator.

Installation Punchlist Screen



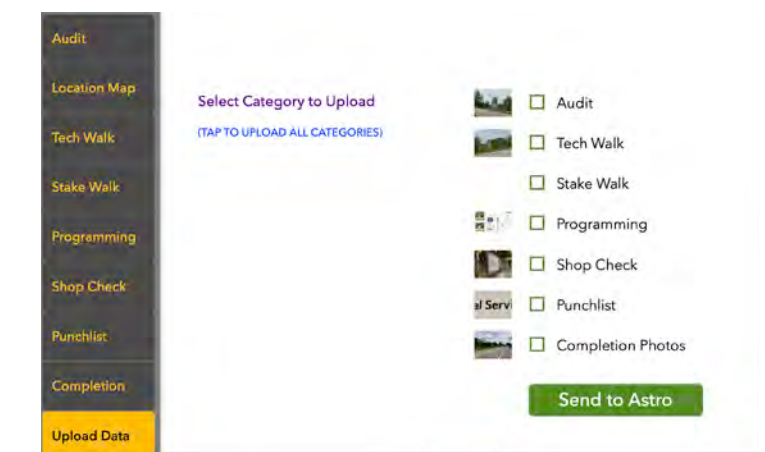
User performs punchlist walk and can report mistakes to fabricator to remedy the situation.

Completion Photos Screen



User takes completion photos of finished project.

Server Upload Screen

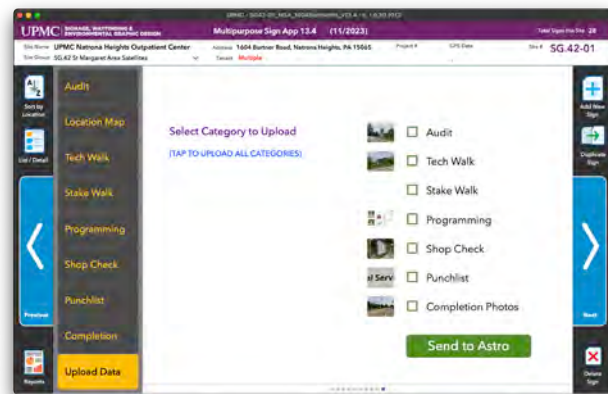


User can upload progressive phases to cloud server after each phase is complete.

"Astro" Sign & Property Database Pittsburgh, PA, 2018-Current

"Astro", a human-centered, enterprise level FileMaker database, tracks every one of UPMC's real estate holdings and features critical site information and a visual catalog of all signage programming for each site.

I built this cloud-based FileMaker database solution from the ground up to allow users to easily find signage photos, real estate information and current branding information at any UPMC site. Astro is fully integrated and cross-referenced with a separate Project Tracking database.



Audit data seamlessly integrates with the cloud-based FileMaker Sign and Property Database, "Astro".

ASTRO SERVER
SWEGD Sign + Property Database

1 / 5,017 Found (Unsorted)

Layout: SPD V8 Sites View As: Preview Edit Layout

SG.42-01 UPMC Outpatient Center Burtner Road Owned / Leased **Leased** Active / Inactive **Active** Property Code **00517**

1604 Burtner Road, Natrona Heights, PA 15065 Suite

[Add New Site](#) [Previous](#) [Next](#)

Location

View larger map

THE VERLAND INDATION

Little-Built Creek

Hawthorn

UPMC Hillman Cancer Center.

General Site Notes SRO Scope X
[Open MPL-SRO Report](#)

Site Group: **SG.42 St Margaret Satellites**

Sub Brand: **UPMC Outpatient Center**

Site Type: **Outpatient Center**

Location: On/Off Campus
OFF campus

Facility Code: **SOUT - Small Outpatient Center**

Site Rebranding Status: OLD
Total Rebrand COMPLETE (no action)

Site Rebranding Status: NEW
Total Rebrand COMPLETE (no action)

Geographic Region: **PS - Pittsburgh Suburban**

Building Square Footage: _____

Location on File Server: _____
SharePoint Link: _____ [Open in Web Browser](#)

Notes: **Site Notes**

[Edit Site](#)

Tenants associated with this Site

SG.42-01

- SG.42-01a Greater Pittsburgh Neurosurgical
- SG.42-01b Russelton Medical Group
- SG.42-01c Heart and Vascular Institute at Natrona
- SG.42-01d UPP Surgery - General
- SG.42-01e Valley Family Medicine
- SG.42-01f Focused Care Group
- SG.42-01g Department of Cardiothoracic Surgery
- SG.42-01h UPMC Hillman Cancer Center
- SG.42-01i UPMC Imaging Services

Projects associated with this Site

P50918
UPMC Outpatient Center Burtner Road Add Taggart to office signage Interior Signage 2020
[Link to Elroy Job Detail Record](#)

P52643
UPMC Outpatient Center Burtner Road St Margaret Sats Exterior Sign(s) 2022-2023
[Link to Elroy Job Detail Record](#)

P52817
UPMC Outpatient Center Burtner Road Renewal Interior Sign Package 2022
[Link to Elroy Job Detail Record](#)

Site Contacts

CRE Contact
Enter Corporate Real Estate Contact

Primary On Site Contact
Primary Contact Name
Primary Contact Phone
Primary Contact Email

Facilities Contact for this Site
Enter Facilities Contact

Chief Administrator
Zach Young
Title Executive Administrator II
Phone 412-647-2386
Email youngzk@upmc.edu

Site Administrator
Alyssa Pennington
Title Practice Administrator
Phone 412-784-5023
Email penningtona@upmc.edu

Landlord
David Niven
Title Landlord Title
Phone 856-667-7601
Email david@pretiumpm.com

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UPMC SIGNAGE, WAYFINDING & ENVIRONMENTAL GRAPHIC DESIGN



Fritz Motschman is a graduate of Industrial Design programs at **Carnegie Mellon University** and **Art Center College of Design (Europe)**. I possess an unusually wide range of project experience, featuring a unique mix of consumer and commercial product design with an acute sensitivity to human factors. I spent three years in Los Angeles as a designer and IT manager for the legendary Saul Bass & Associates, two years in Switzerland designing aerial tram cars and monorail cabins for CWA Constructions, a world-market Swiss manufacturer, and a year in London, England as a senior designer for PSD Associates, a prominent British product and communication design firm.

In Pittsburgh, I gained 20+ years of experience in the area of architectural signage design while further developing advanced skills in graphic design, website design and marketing, working for the owner of a prominent local signage manufacturer until joining UPMC in 2016. I conceived, designed, implemented and maintained a human-centered, enterprise level FileMaker database which tracks every one of UPMC's real estate holdings and features a visual catalog of all signage programming for each site.

I simultaneously developed a mobile data and photo auditing application that allows staff and vendors to capture site information and upload to the sign database remotely. Other responsibilities included supporting signage rebranding projects from initial conception to installation for UPMC Hillman Cancer Center and all of its satellite locations, producing comprehensive design and wayfinding packages for hospitals such as UPMC Memorial, UPMC West Shore, UPMC Lititz, UPMC St. Margaret, and working with various internal clients to achieve marketing and wayfinding initiatives.

I bring to the table worldwide, multi-disciplinary design management experience. I produce solutions that require cognitive problem solving ability, two- and three- dimensional design skills, aesthetic taste, and advanced software programming to routinely work through complex problems and find effective and elegant solutions.

If you have questions or would like to see more details about the projects outlined here (or more projects, for that matter), please get in touch and I'll be happy to explain more.

Fritz Motschman

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