

Case Study

SignAgent 

Denver International Airport

Learn how Denver International Airport is using SignAgent to streamline its signage and wayfinding efforts.



Overview

The third busiest airport in the United States (2023)

Welcomes 80M+ passengers annually (2024)

Contains more than 10,000 wayfinding and informational signs within the main terminal

In need of a centralized system to track signage and wayfinding assets and information



The Client

Denver International Airport (DEN) – known for its iconic tent-like structural design – is a major transportation hub located in Colorado. According to a 2023 report on total passenger traffic, Airports Council International (ACI) ranked DEN as the 3rd busiest airport in the U.S. and the 6th busiest airport in the world. DEN's well-organized structure includes one main terminal and three concourses, facilitating both domestic and international travel.

The Situation

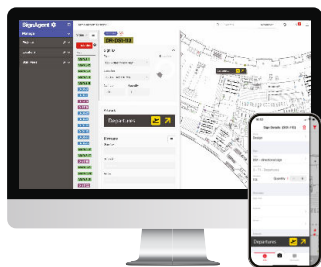
Capital improvement projects and operational changes (including updates to passenger processing systems) had left various parts of the overall signage program in different states. The process for keeping signage cohesive and intact had become rigorous and time consuming.

DEN was using multiple methods to document and communicate about signage. Location plans and message schedules were carefully maintained in Adobe Illustrator and saved as individual PDFs. The documents showed where each sign was, but individual signs also had associated Illustrator files that needed to be cross referenced with the location plans and message schedules. DEN had considered using Revit or Bluebeam to digitally catalogue their signs, but both systems were considered cumbersome for keeping track of ever changing and evolving signage needs.

Three Key Challenges

1. No Single Source of Truth

As DEN completed signage work across the airport, individual plans and files needed to be updated manually – one sign at a time – to ensure the documents always reflected current reality. That information also had to be routinely shared with various teams, consultant groups, and organizations for progress reviews and approvals. The documents were used as individual sources of truth, but data integrity, version control, and collaboration were a constant challenge.



SignAgent Manage puts all of your sign information at your fingertips. The position and orientation of each sign is mapped to its location on your floor plans, along with messaging, sign type, sign designs, sign hardware, and more.



2. An Inefficient, Expensive Process

Dedicating resources to their existing process was expensive but necessary; it was also labour intensive and error prone. Signage was increasingly challenging to manage in DEN's fast-paced work environment, as updates often lagged behind the rapid pace of changes. By the time documents could be updated, new developments would often emerge. DEN needed the ability to make real-time updates on a platform that was easily accessible by multiple users.

3. An Upcoming Renovation

DEN started renovating the main terminal, which required updating the signage in the Great Hall to meet passenger needs and operational changes. This project led to new signage requirements, challenges, and workflows. DEN's existing on-call team of three began doing this work on a monthly basis. It quickly became apparent that the demands of the project had outgrown their existing process. DEN needed a better solution and they needed it quickly. This prompted the wayfinding team to explore best practices and systems for maintaining existing signage, introducing new signs, and planning for future signage needs.

The Solution

In 2022, DEN hired a new design firm — Selbert Perkins Design (SPD). SPD recommended that DEN adopt SignAgent to streamline their internal processes and achieve greater control of their sign data and assets.

The first step in using SignAgent for an existing facility is to upload PDF location plans. Then, individual sign location markers and accompanying information can be added to the plans within the platform. SignAgent's Mobile App can be used in the field to complete on-site sign surveys in order to collect photos of existing signs, plot their locations, and add any relevant notes. SignAgent can also be used to create sign systems in brand new or renovated facilities.

Sign templates for simple sign layouts can be created in Adobe Illustrator and integrated with SignAgent so that each sign's messaging, font, symbols, and colours can be changed directly in the SignAgent platform without the need to edit individual sign files in Illustrator.

SignAgent also enables collaboration. Project stakeholders can be invited in to reject or approve signs or add comments, and work orders can be created for internal sign fabricators or external sign vendors. The SignAgent Mobile App can then be used to guide installation in the field.

Ultimately, SignAgent becomes a single, reliable source of truth for an organization's sign data and a collaborative hub for all project stakeholders. In SignAgent, sign locations and information are always up to date, and changes can be tracked by date and by user.

Getting Started with a Pilot Project

SignAgent recommended that DEN begin with a smaller pilot project to learn the platform and begin to address their immediate signage needs within the terminal. Through the pilot, DEN would be able to complete a survey of some of their existing signage to get their data into the system. They would also receive onboarding and consultation on proper setup in the platform. Completion of this initial phase of work would position them well for future new construction and renovation work.

DEN accepted SignAgent's proposal to complete the following deliverables for DEN's main Jeppesen Terminal:

- 3 days of surveying completed by SignAgent (3 surveyors)
- Data entry and categorization of signage from the survey
- 15 hours of advanced training and check-ins
- 6 months of full access to the SignAgent platform, with unlimited licenses for internal and external employees and vendors

SignAgent's team surveyed 4,000 signs on six floors in just three days. The sign survey focused on front-of-house (pre-gate) areas, including the check-in/ticketing area, lobbies, passenger pathways leading to security checkpoints, baggage claim areas, the parking garage entry, and some exterior signs in the arrival and departure areas.

The survey team used SignAgent's Mobile App to capture everything from baggage claim signage to regulatory, safety, and emergency signage. They even captured door asset tags.



While on site, SignAgent's Director of Professional Services assisted DEN and the Selbert Perkins team with the organization of their sign type families, guiding them through decisions about sign nomenclature and IDs to help them develop a well organized and searchable database. He also trained DEN's staff to use the SignAgent Mobile App themselves for future survey work.

The Results

A Complete Database and a Cost-Effective Process

With the implementation of SignAgent, DEN has experienced a transformative shift in efficiency. They now have a centralized, searchable database of their sign assets, making information instantly accessible. This makes future work faster and easier.

For example, prior to SignAgent, when a new airline was added at DEN a work order would need to be created for sign procurement. Accessing the necessary information required a detailed verification process that could take 4 to 5 days, all conducted on-site at the airport. Now, with SignAgent, the team is able to generate reports by sign type, location, or other variables in mere seconds, and compiling and sharing a work order with the sign shop takes just a few minutes more.

DEN will adopt an on-going SignAgent license, which will enable the airport to manage and maintain their signs over the long term.

Taking into account SignAgent's annual license costs, DEN estimates that getting all of their sign information into SignAgent will save them 70% on their annual sign management costs and those resources can be put toward other needs.

Future Considerations

With the pilot project complete, DEN now has the option to finish surveying their remaining signs on their own or continue to work with SignAgent (or another qualified SignAgent service provider) to complete future surveying and categorization work within the platform.

The DEN team has also been working with SignAgent's customer success team to identify which signs are good candidates for templating. Creating sign templates will enable DEN to create new signs and make changes to sign content within SignAgent, without having to open Adobe Illustrator.

Once DEN terminal's 10,000 signs are fully captured in SignAgent, DEN's wayfinding team will be able to more easily assess the effectiveness of their existing signage and begin to implement improvements that will enhance passenger flow and customer experience. They will also be in a better position to evaluate needs and costs for future projects, whether inside or outside of the terminal. As the Denver International Airport evolves, they will continue to capitalize on the efficiencies of SignAgent.

"SignAgent has already proven itself to be an improved solution for managing our signage on a daily basis and collaborating with our stakeholders and partners. This pilot project has been a great way to get started."



Maddison Tischler Ward
Wayfinding Project Manager | DEN

