
Meet our latest
MapScale® model
Galileo
Pointr

Housekeeping

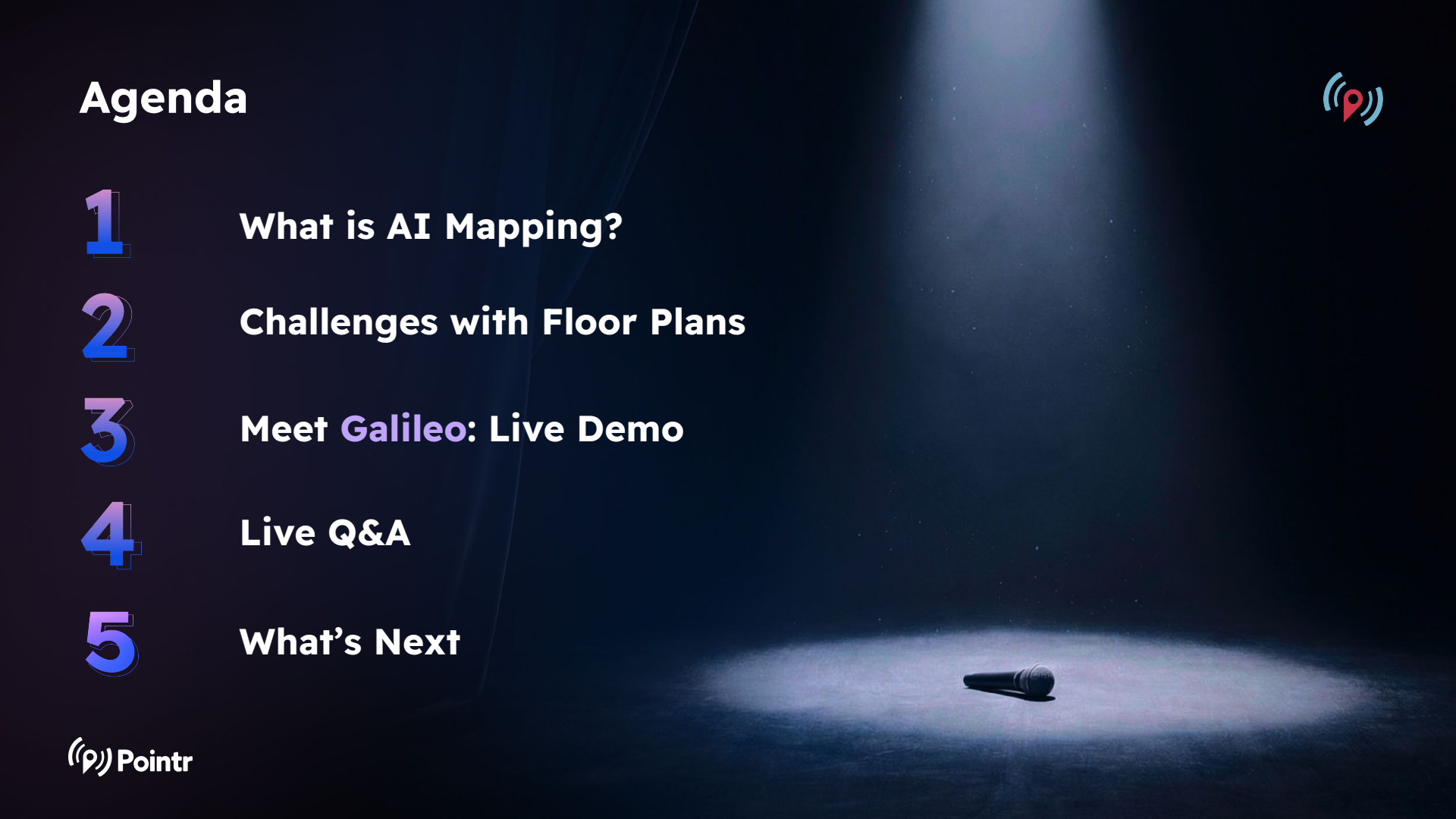
Webinar Format	30-minute live discussion followed by a 10-minute Q&A session.
Submitting Questions	Use the Q&A feature to submit your questions at any time. Our speakers will address questions at the end.
Follow-Up	If we don’t get to your question, we’ll follow up after the webinar.
Recording & Resources	This webinar is being recorded and will be shared after the session.



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Agenda

1. What is AI Mapping?
2. Challenges with Floor Plans
3. Meet Galileo: Live Demo
4. Live Q&A
5. What's Next



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Your Speakers



Ege Akpinar

CEO

Pointr



Can Tunca

Chief R&D Officer

Pointr



Eva Cheng

Product Marketing Manager

Pointr

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What is AI Mapping?



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Back in 2019

A client (macy's) was interested in buying our location platform. However, they had to fix their maps first (which were refreshed only every 2 years).

Challenge

2,000 floor plans
Updated hourly

Expectation

Yearly updates



Result

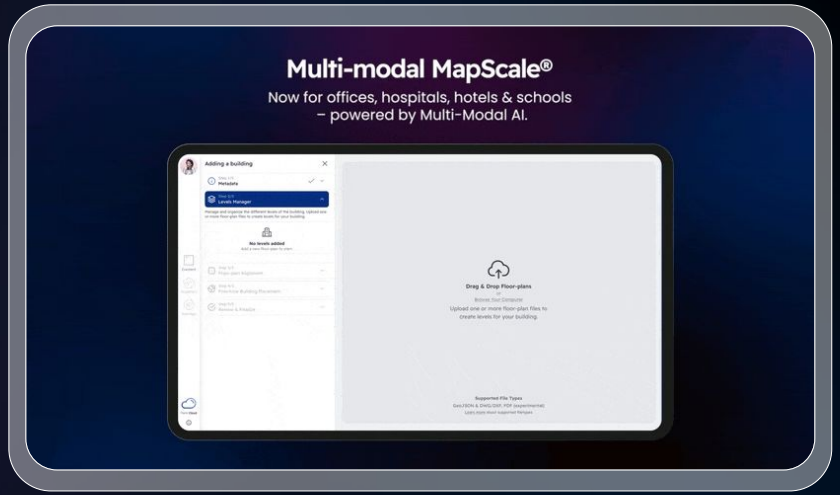
Always up-to-date maps
without human intervention

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Legacy vs AI



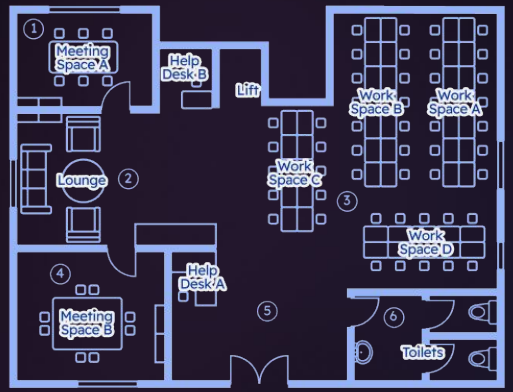
Legacy Mapping



MapScale®

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From floor plan to a digital map, MapScale® is an AI pipeline of 20+ processes



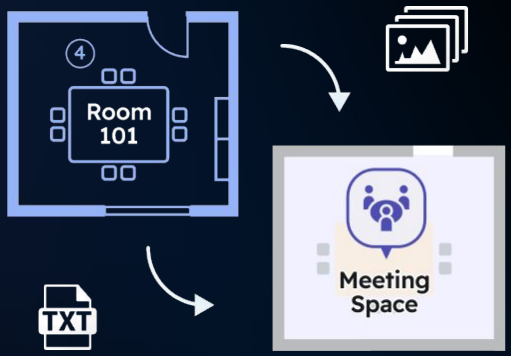
Data Ingestion

Reads your CAD files (.dxf, .dwg, vector PDF).



Visual Analysis

Detects rooms, units, furniture, and walls from visual data.

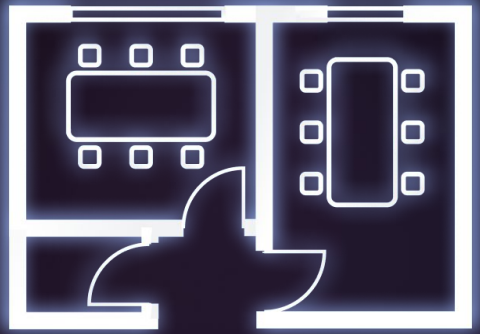


Multi-Modal LLMs Process

Analyzes text and visual data to enhance map accuracy.

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No manual effort. AI detects spaces, classifies them, and identifies key details automatically.



#1 Detection

Evaluates how well the model identifies spatial elements and their boundaries (e.g., walls, doors, POIs).



#2 Classification

Measures the accuracy of labeling elements (e.g., meeting space vs. workspace).



#3 Identification

Extracts and identifies floor plan metadata (e.g., unit names, IDs, annotations).

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Challenges with Floor Plans

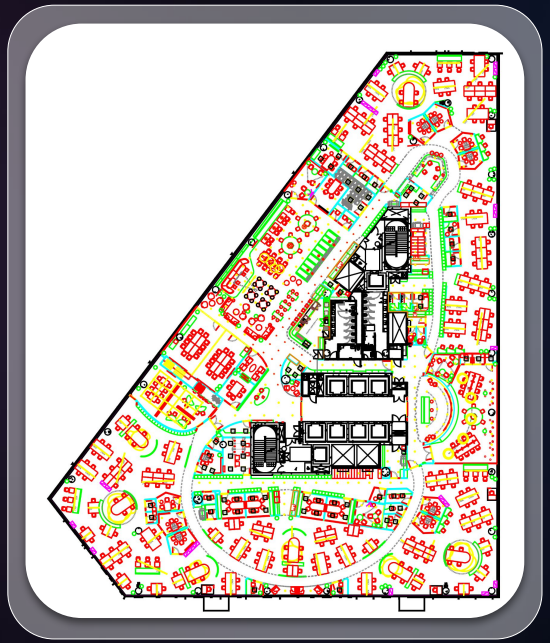


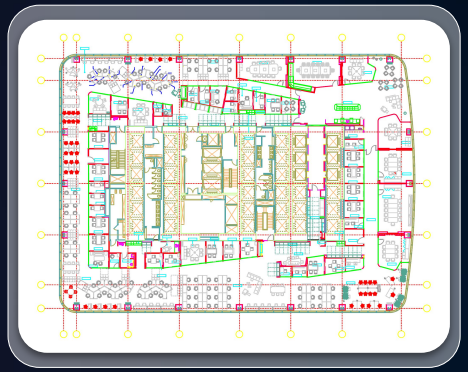
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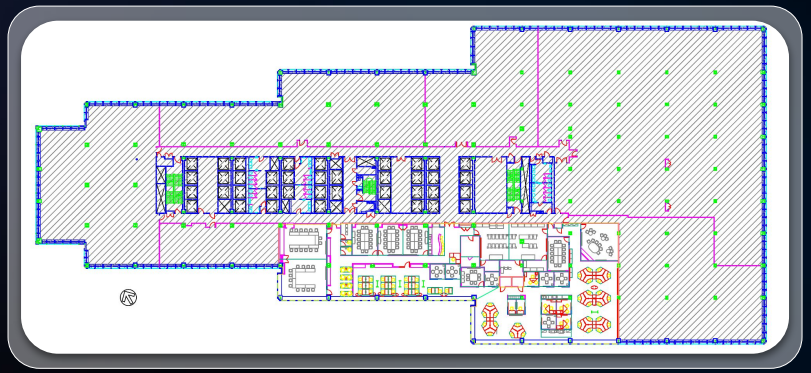
Raw floor plans are there, but they are now what you would expect...

No 2 floor plans are alike:

Different buildings, different architects/designers...

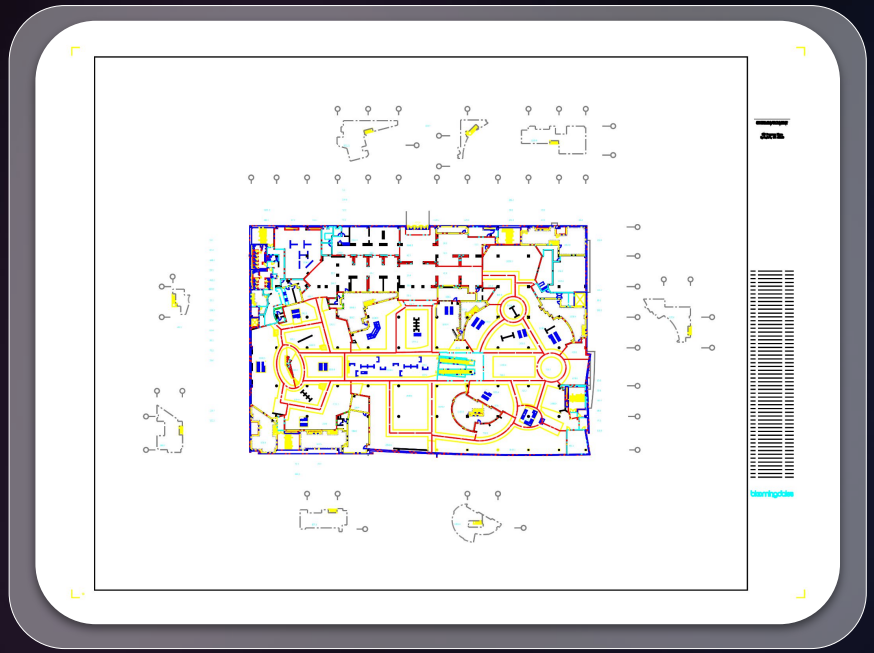


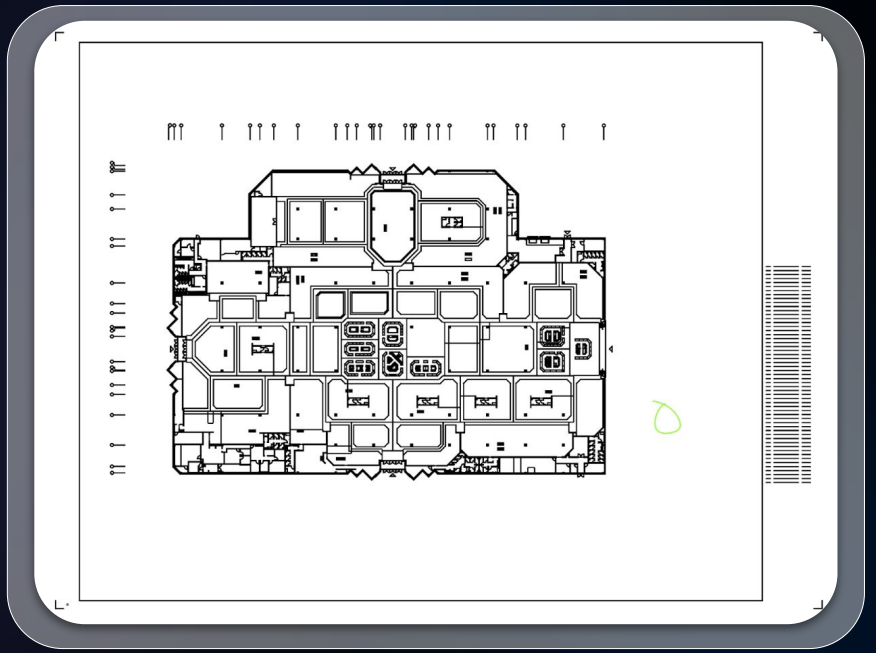




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Lots of irrelevant information, sketches, text, legends...

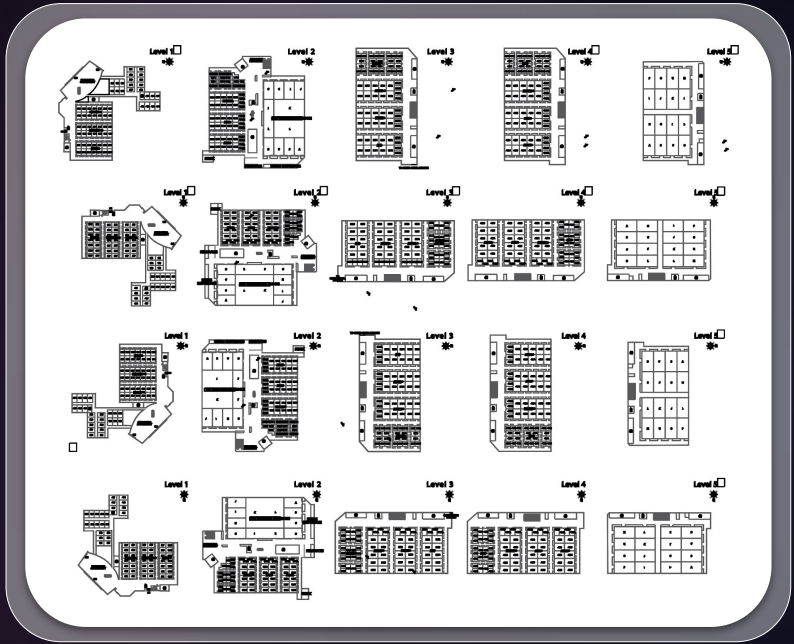




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It may be difficult to find the building/region of interest

This is a single floor plan containing many levels!

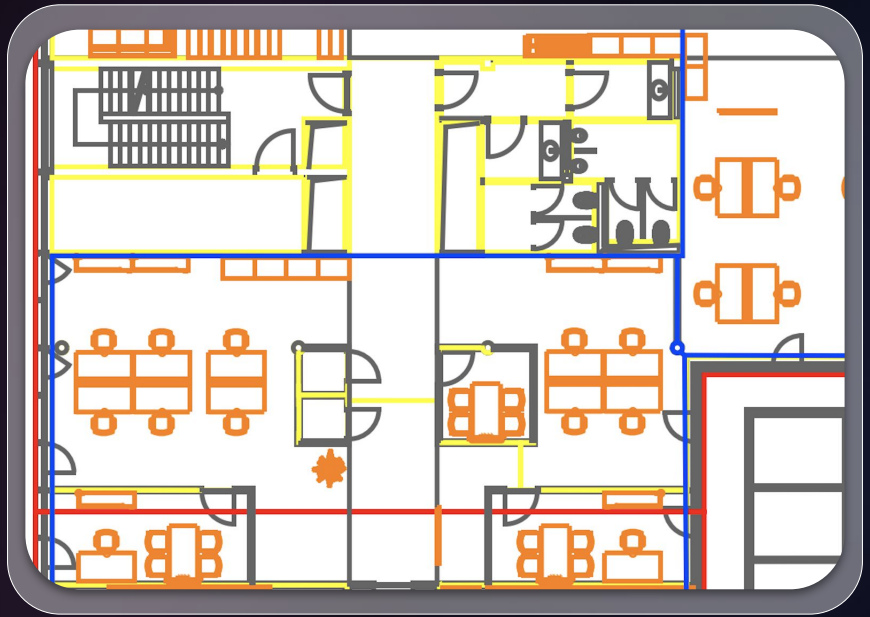




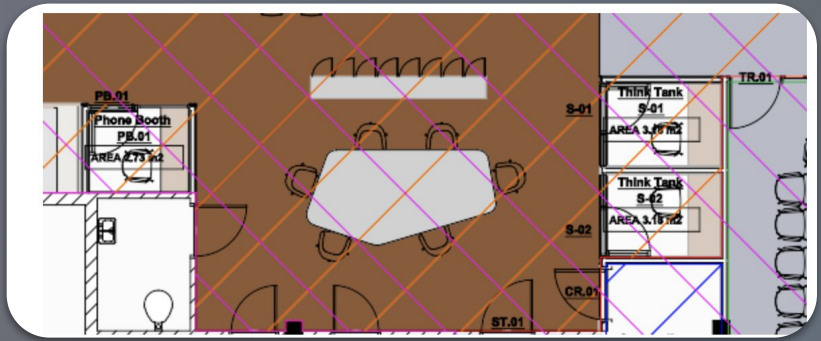
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So many irrelevant details, even in the regions of interest

Red: Power lines, Blue: Water pipes, Yellow: Actual walls!

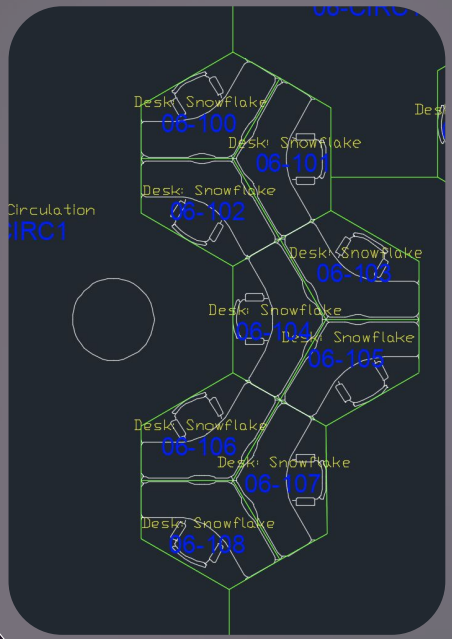


Visuals overlaid on actual objects, e.g. hatches

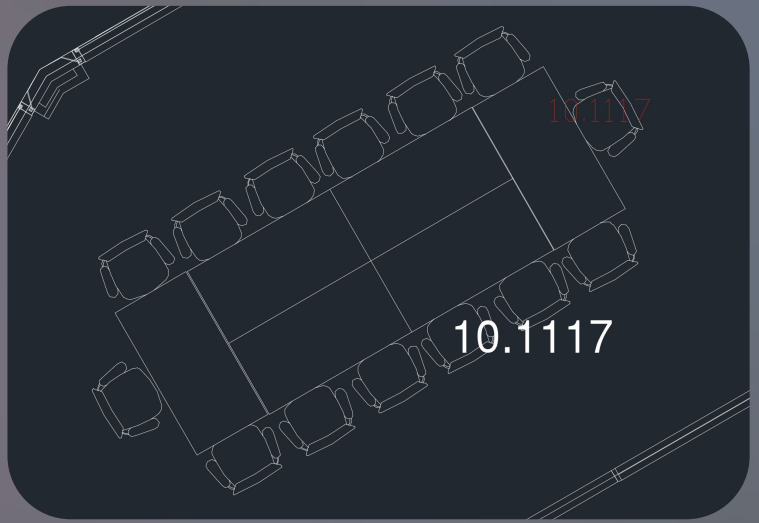


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So many different types of furnitures...



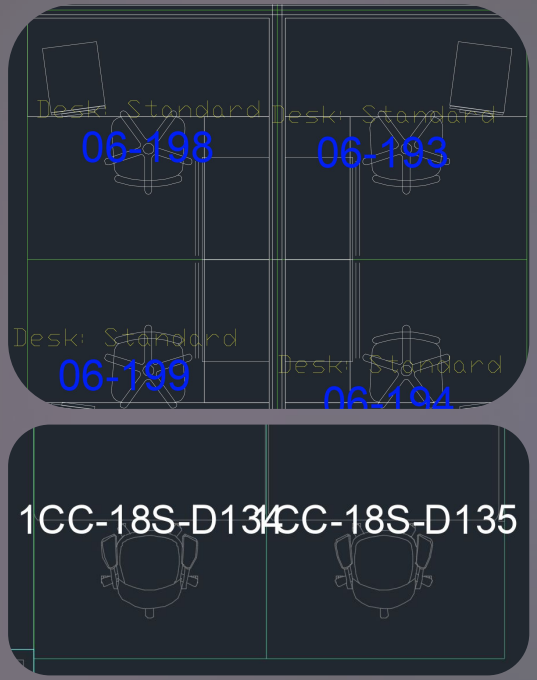
Tables (small and large), cubicles, chairs...



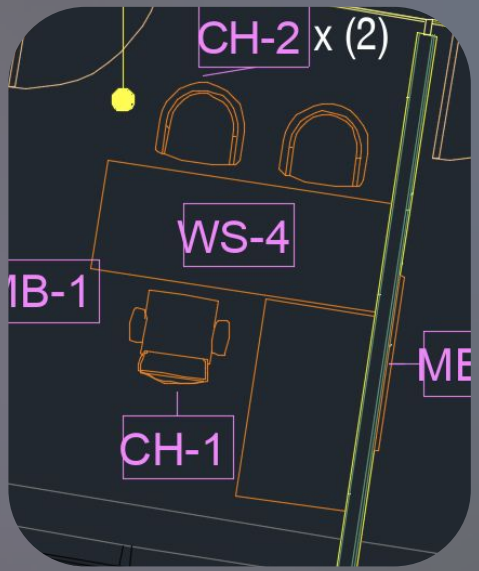


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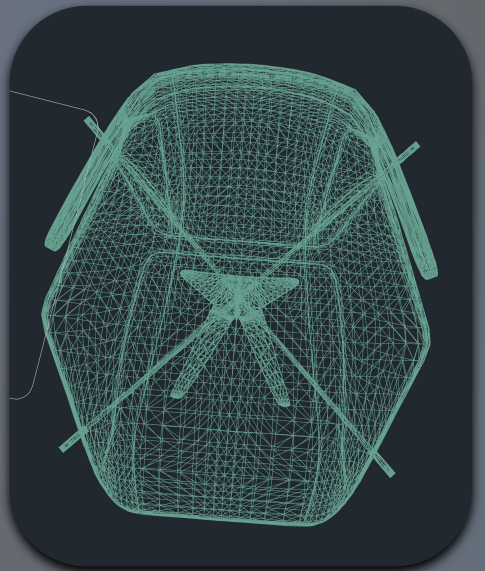
So many different types of furnitures...



Different styles even in the same floor plan!

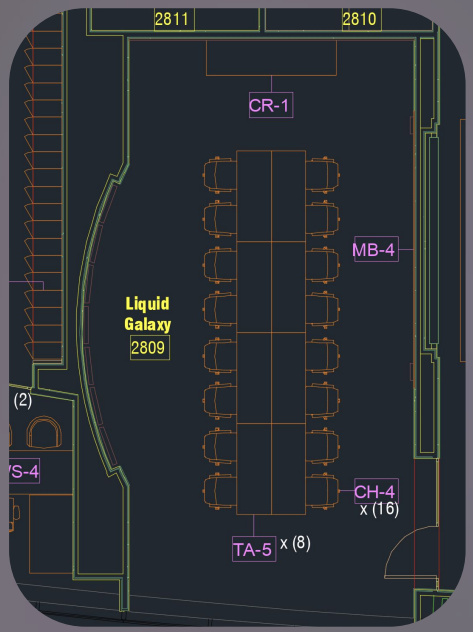


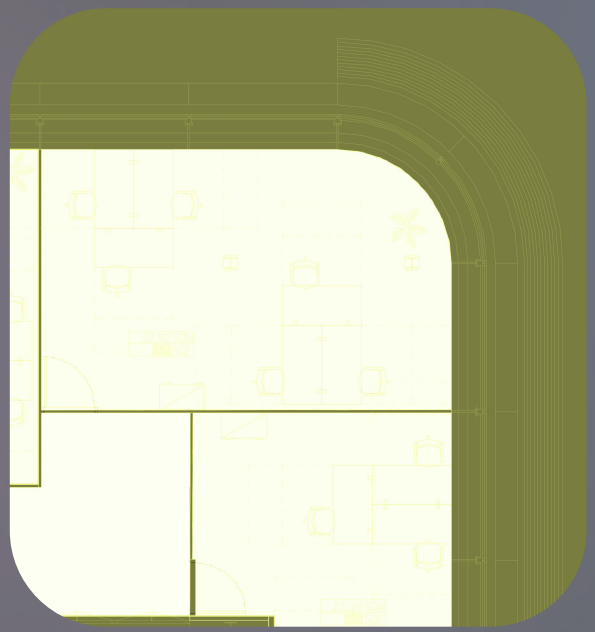
Insane level of detail!

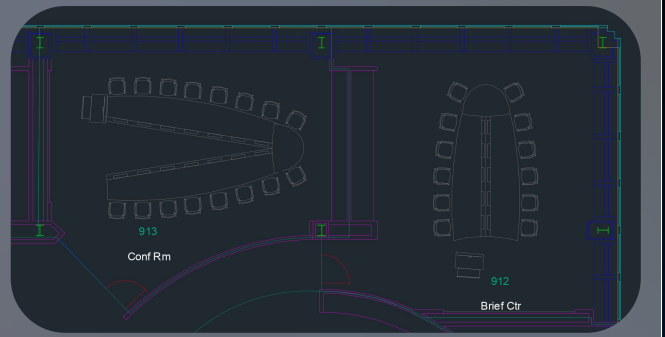


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Walls are not so simple...

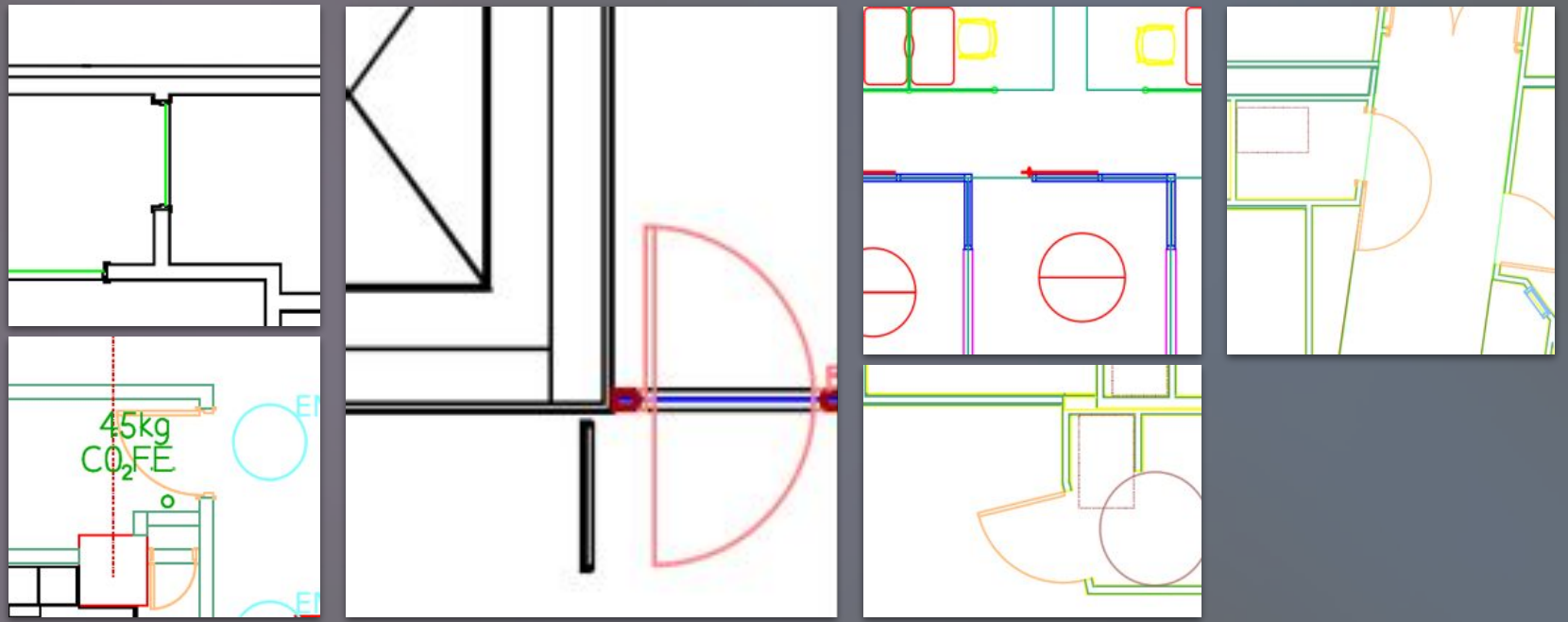






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You would expect doors to be easy...



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Lack of Standard on Core Taxonomy Design Principles

Scenario: Create a wheelchair accessible Mexican restaurant with vegan menu

Google Maps

Flat

```
"primaryType": "restaurant",
"types": ["mexican_restaurant",
          "vegan_restaurant", "food"],
"accessibilityOptions": {
  "wheelchairAccessibleRestroom": true
}
```

- ✖ **No explicit hierarchy**
- ✖ **Insufficient granularity**
  Properties like restroom gender, cuisine cannot be represented directly
- ✖ **Meaning split across fields**
- ✖ **Restricted extensibility (outdoor-focused)**

primaryType choices: *250+*
items allowed in types: *multiple from same poolç*

Apple IMDF

Deep Hierarchical

```
"feature_type": "occupant",
"properties": {
  "category": "mexican.modern",
  "anchor_id": "123",
}
```

- ✖ **Complex model**
  Requires multiple interconnected entities (e.g., Occupant, Unit, Anchor) to represent a single POI
- ✖ **Rigid & limited type list**
- ✖ **Inflexible syntax**
  Dotted categories with strictly predefined values and ordering

category choices: *900+*

OpenStreet Map

Key-Based / Tag Composed

```
"amenity": "restaurant"
"cuisine": "mexican"
"diet:vegan": "yes"
"wheelchair": "yes"
```

- ✖ **Requires parent-bucket selection first**
  Classification must first fit into fixed buckets such as amenity, shop, tourism, etc.
- ✖ **No formal hierarchy**
  Hierarchy is defined via selected key (json model changes according to type!)

key choices: *10*
values choices: *20-100 for each*

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Simple Two-Level Hierarchy

```
"mainType": "food-beverage",
"subType": "restaurant",
"cuisine": "Mexican",
"dietaryOptions": ["Vegan"],
"wheelchairAccessible": true
```

- ✔ **Clear parent-child hierarchy**
  Using mainType/subType
- ✔ **Optional depth**
  Only mainType is required; subType and additional properties can be used if available and needed
- ✔ **Attributes separated from taxonomy**
  Fields like gender and cuisine stay outside the type hierarchy, making the AI model easier to reason about

mainType choices: *44*
subType choices: *423*

Meet Galileo: Live Demo



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Meet Galileo

5Bn sqft training data

12,000+ curated floor plans

~250k tokens per floor plan

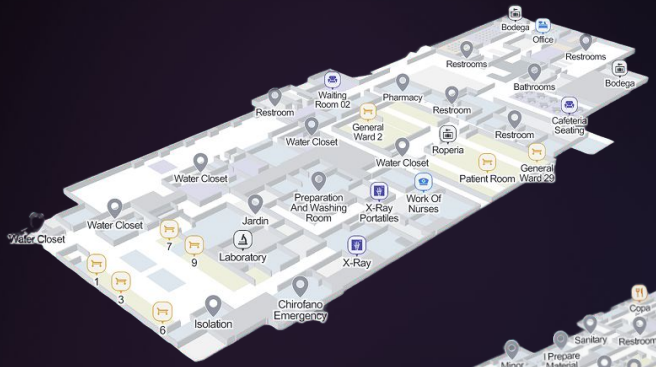


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Meet Galileo

Live Demo 👀

Meet Galileo: Live Demo









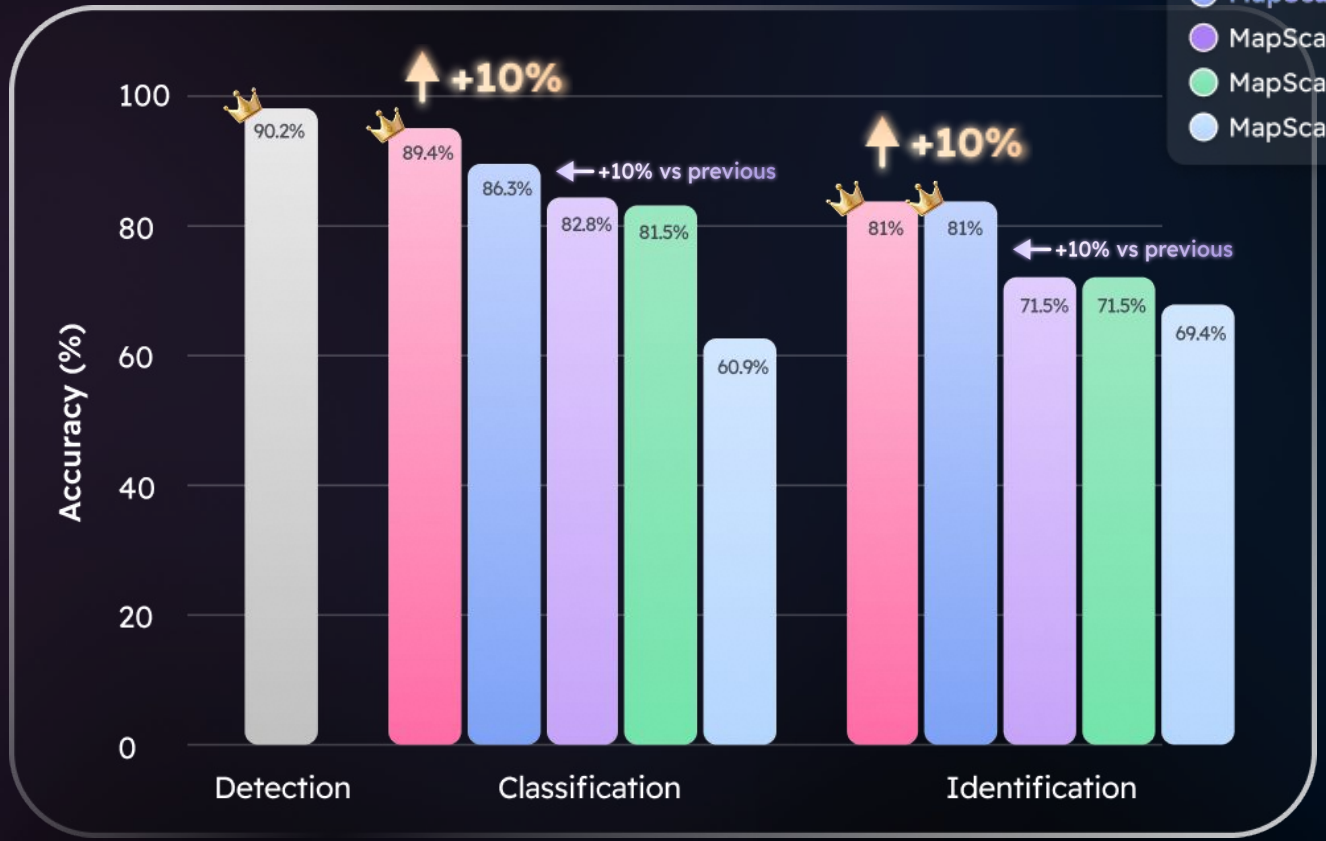
Education

Healthcare

Workplace

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+10% Accuracy Improvement with Galileo



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Live Q&A

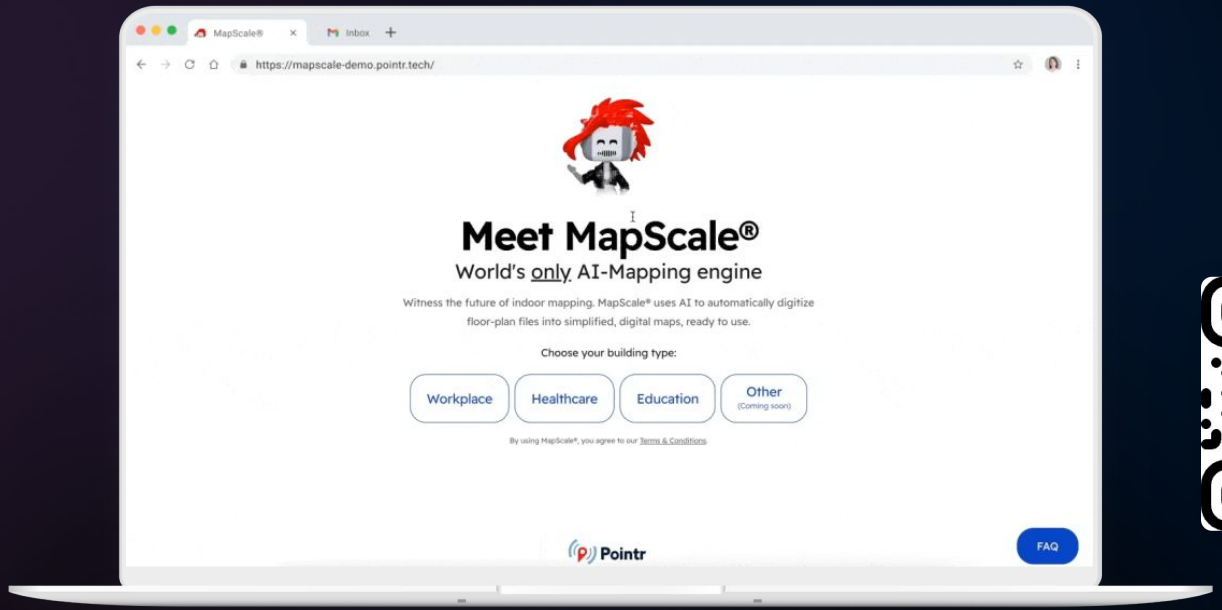


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AI Mapping

Try MapScale® out yourself

https://mapscale.ai/





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THANK YOU!



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