

April 2026

# GeoAI for Smart Buildings



# Meet **Pointr Maps™**



**Pan**  
Click, hold and drag



**Zoom**  
Scroll or pinch



**2D & 3D Rotate**  
Hold 'ctrl' and drag



Scan for a  
**GWF Demo**



# The Top Choice for **Fortune 100**

Chosen by Fortune 100 companies for our unmatched precision and innovation in indoor mapping.

**7 Billion**

Square feet of space mapped

**5,000+**

Venues

**35+**

Countries



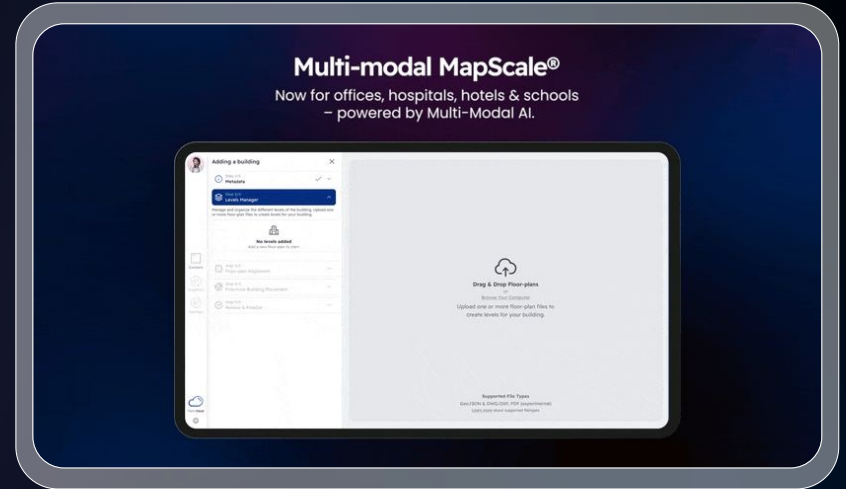


# What is AI Mapping?

# Legacy vs AI



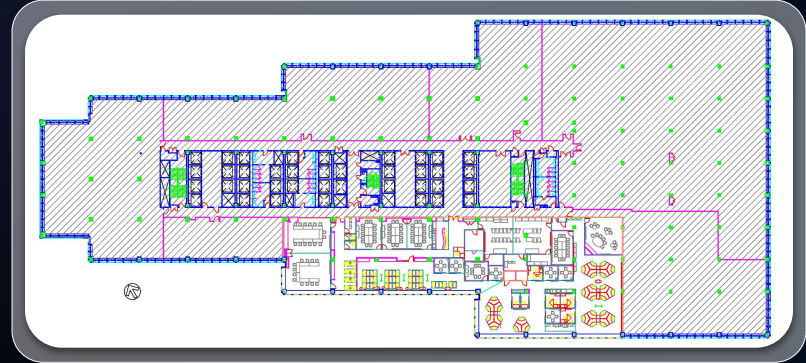
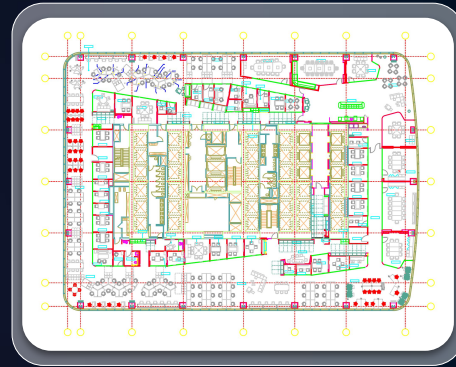
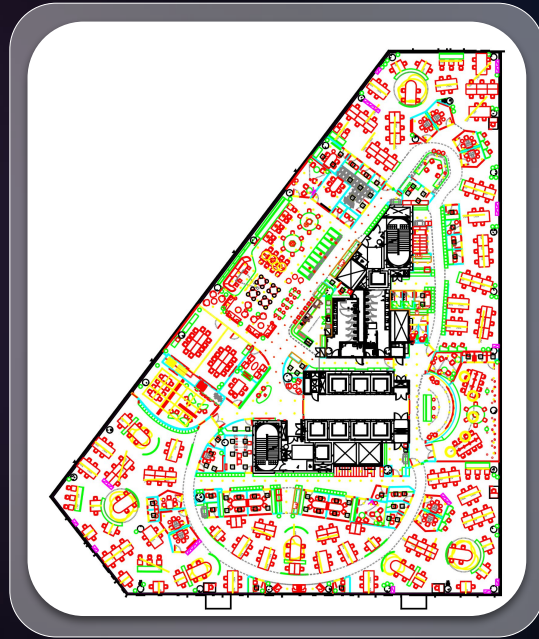
Legacy Mapping



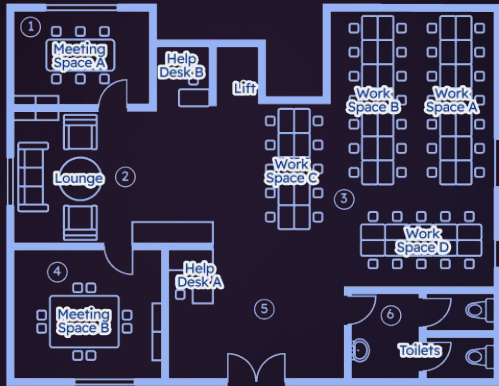
MapScale®

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

No 2 floor plans are alike:  
Different buildings,  
different architects/designers,  
lots of irrelevant information...



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



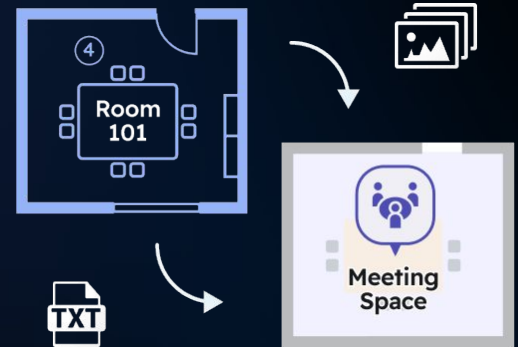
## Data Ingestion

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



## Visual Analysis

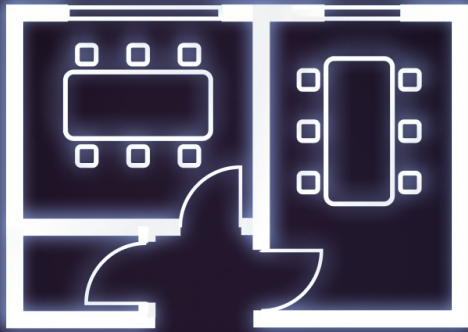
Detects rooms, units, furniture, and walls from visual data.



## Multi-Modal LLMs Process

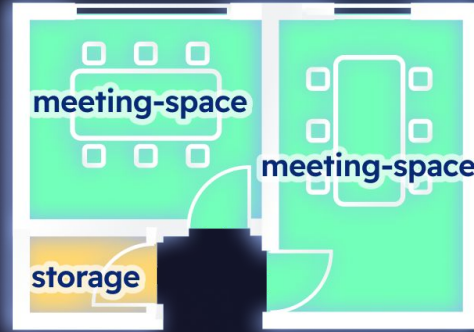
Analyzes text and visual data to enhance map accuracy.

**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).

# +10% Accuracy Improvement with Galileo

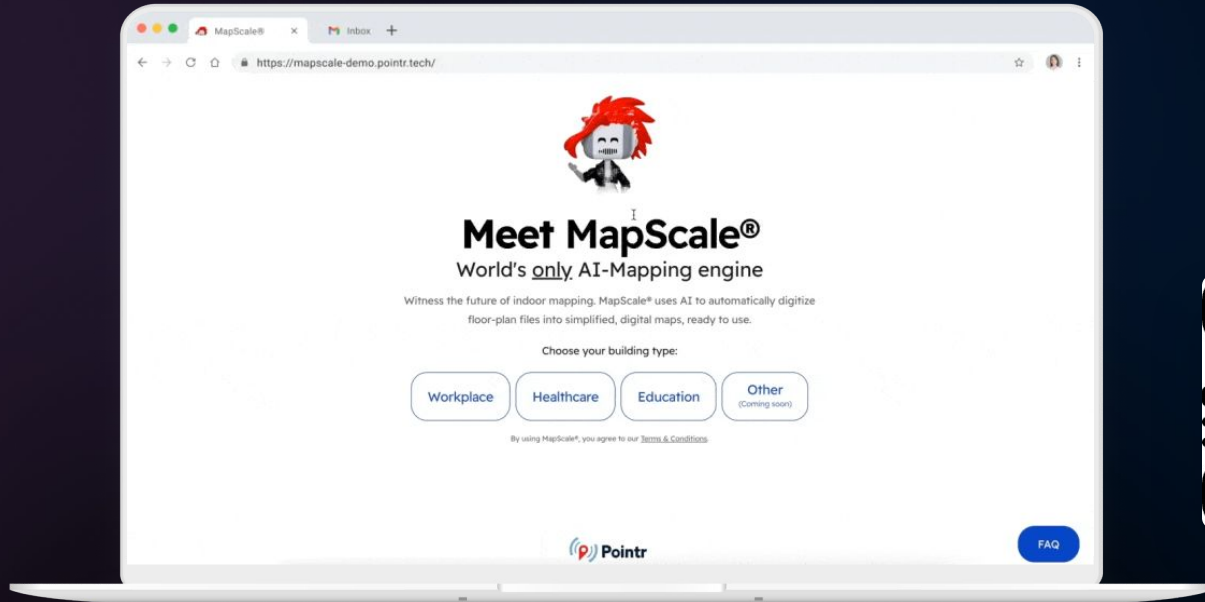
- All MapScale® Models
- MapScale® Galileo v10.0
- MapScale® Galileo
- MapScale® v9.2
- MapScale® v9.0
- MapScale® v8.17



# AI Mapping

## Try MapScale® out yourself

<https://mapscale.ai/>



# Pintr is giving AI agents a sense of space



## Agentic AI

Can you book me a meeting at 3pm?

Sure! Room C booked for 3 PM.  
Invites sent. Need a map to find it?

Yes, please.

All set! Tap below to navigate  
to your meeting room.

Take me there

# Agents = Chatbots?

Context + Attention + Choice + ACT 🦾 = Agentic AI

## LLMs Alone

- **Low autonomy;**  
Require direct user input for each step
- **Limited tool use;**  
depend on training data and cannot act in the real world



## Agentic AI



### LLMs

Plans next steps using context.

### MCP

Exposes available tools & APIs to the agent.

### APIs & Tools

Extends LLMs beyond text into action.

## Agentic AI

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**Feedback Loop**  
Verify, adapt, retry.



# Taxonomy is key to help AI Agents understand space

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 pool



## 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



## Pointr

Two-Level Hierarchy  
Simple

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

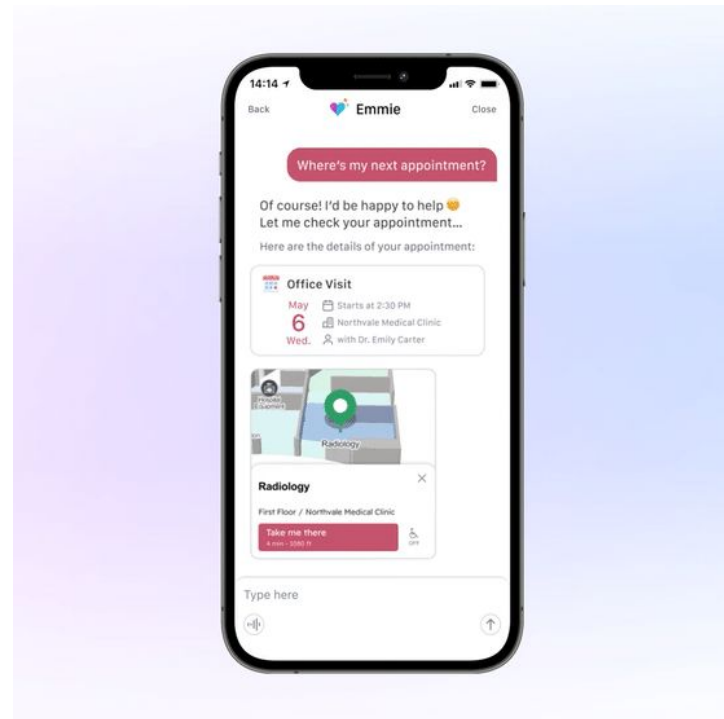
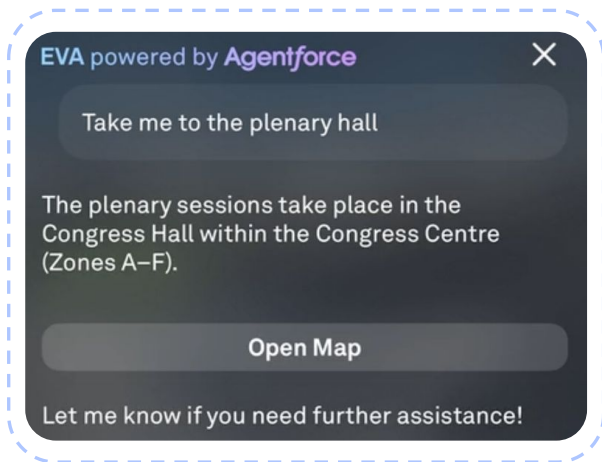
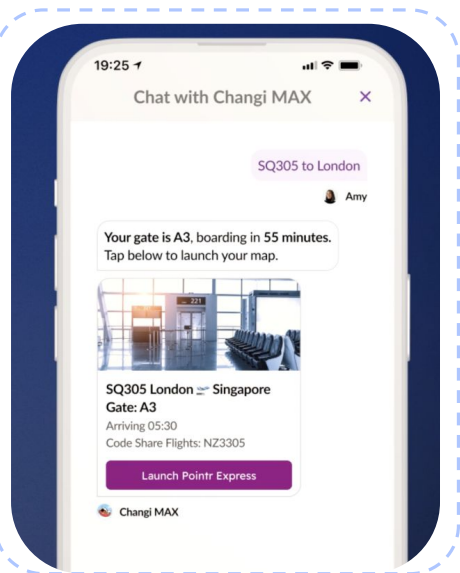
- ✓ **Clear parent-child hierarchy**  
Using mainType/subType
- ✓ **Optional depth**  
Only mainType is required; subType and additional properties can be used if available and needed
- ✓ **Attributes separated from taxonomy**  
Fields like gender and cuisine stay outside the type hierarchy, making the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

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

# Agentic AI is Guiding People in Every Building



Live at the World Economic Forum in Davos with Agentforce



# Thank you!



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