



# The New Standard in Shade

Justin Lee

Senior Product Manager

# Mission

**We improve people's lives by creating and managing the world's digital domain for property and structures.**



# What we do



## High Resolution Aerial Image Quality and Coverage

**50+** Petabytes of imagery, **300** million images



## Accuracy and Reporting of Big Data

**20k+** reports per day that can scale to **40k** per day. **5.6M** property attributes detected with **+93%** accuracy.



## Transformative Workflows:

**4.3m** virtual inspections in 2018 versus physically rolling a vehicle



SunSite Complete

# 3D Building Geometry

**Delivers precise roof 3D models derived from aerial imagery**

## Edge to edge measurements

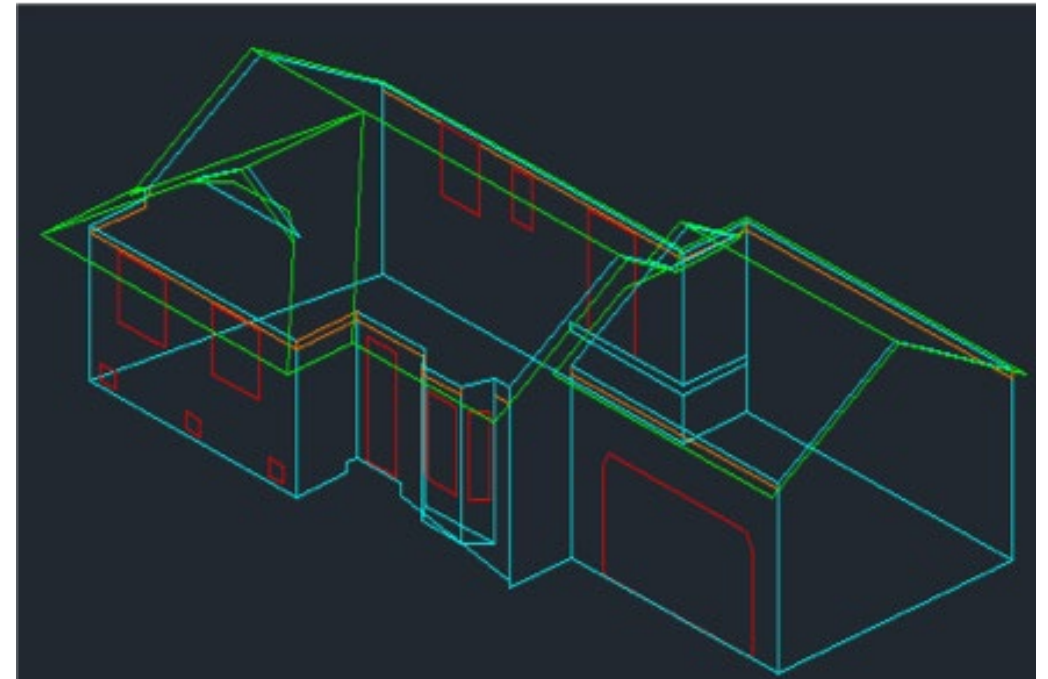
- Horizontal & vertical measurements

## Rooftop Penetrations

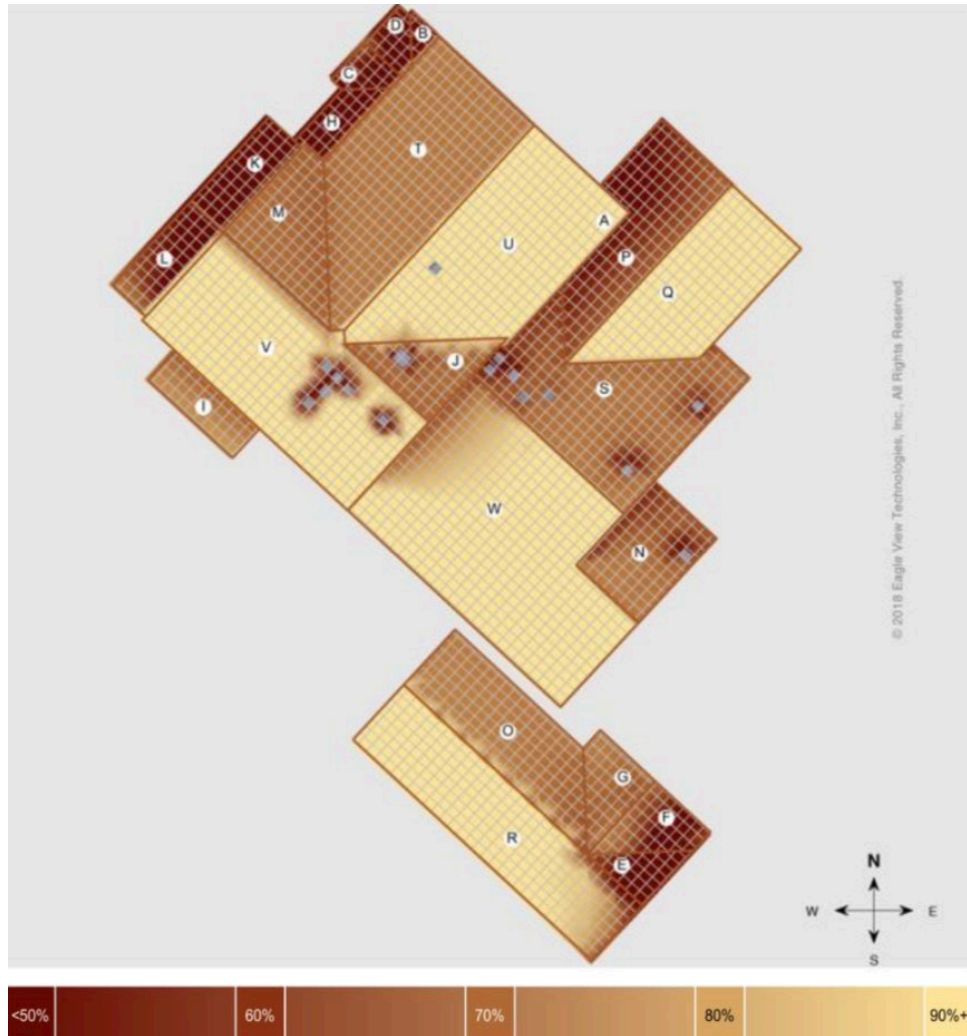
- Size & location measurements

## Data classification

- Facets & penetrations
- Line type designation



# Detailed, Site Specific Shading



## Benefits



Get detailed shade values for the entire roof



Get more accurate shade values

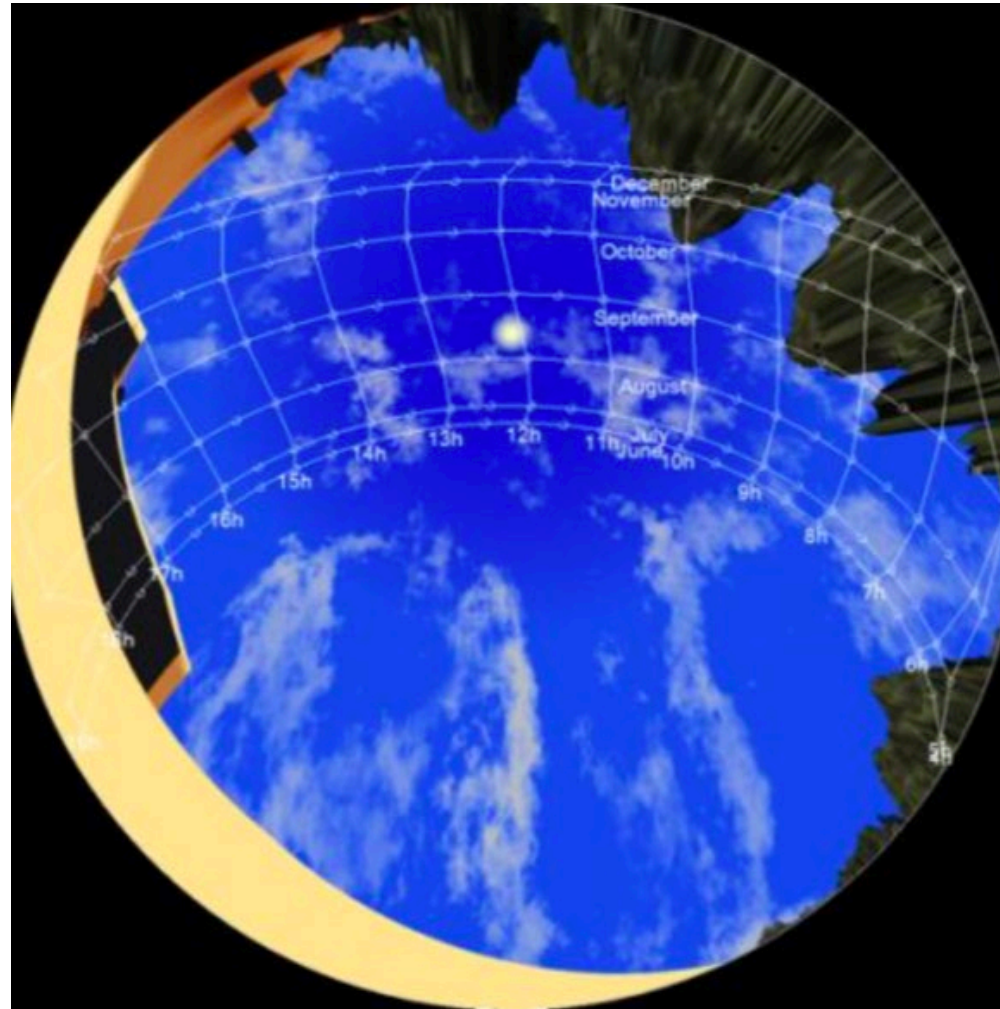


Eliminate site visits



Structured Data to analyze and build on



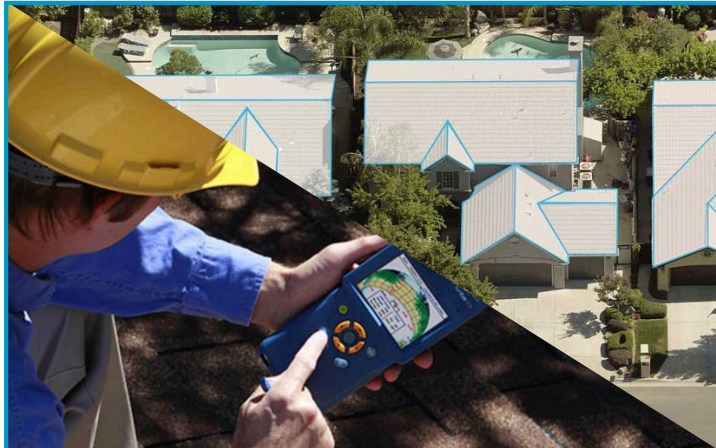




Does it work?

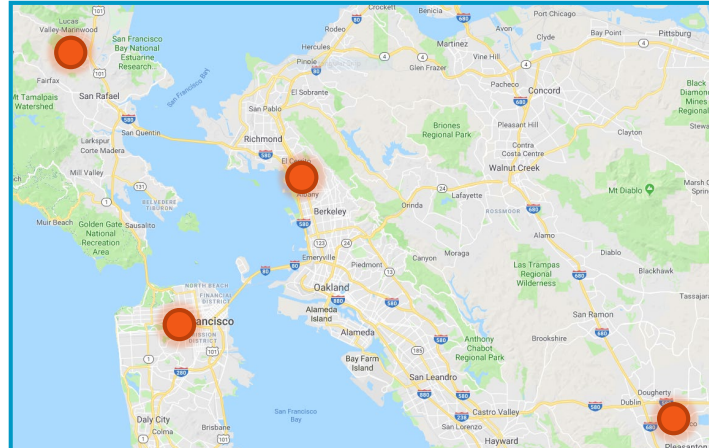


# Assessment methodology



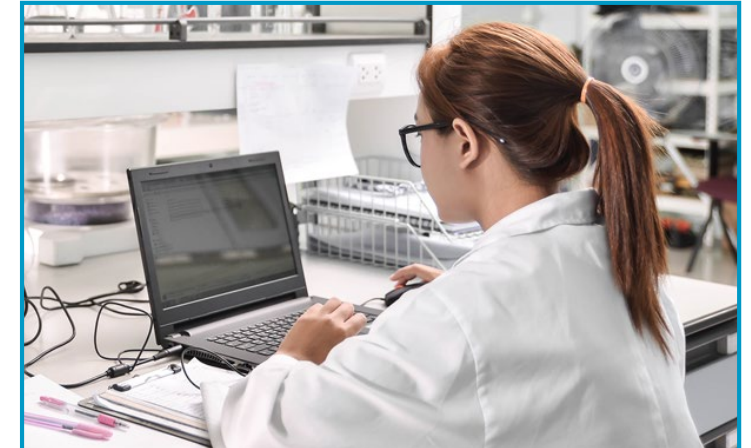
## Different capture approaches were selected

- EagleView SunSite Complete which measures solar access values remotely based on aerial imagery
- Solmetric SunEye 210 handheld measurement device equipped with image processing and GPS software



## Representative test sites were identified

- 4 residential sites in California were chosen based on the diversity of the type of shade affecting them, such as nearby buildings, trees, and rooftop shade-causing objects



## Solar Access Values were captured and analyzed

- EagleView SunSite Complete generated measurements and solar access values from multiple aerial vantage points for the four sites
- Using the handheld, an Institute for Building Technology and Safety (IBTS) technician collected measurements facing south capturing 21 points across the four sites

\* Ratio of shaded insolation over unshaded insolation at a given point.

# Results

**Average difference** was **between -1% to 0%** in annual SAVs between EagleView SunSite Complete and SunEye 210

**“EagleView SunSite Complete is viable tool for estimating shade impact on the roof of common residential/low-rise structures.”\***  
- DNV GL

Average annual SAVs from SunEye and EagleView along with their difference

Site	Point	SunEye SAV (%)	EagleView SAV (%)	Δ SAV (%)
Bolanos	A	57	59	2
	B	64	66	1
	C	62	65	2
	D	80	80	0
	E	92	85	-8
	Average of 5	71	71	0
Evelyn	A	85	85	<1
	B	98	93	-5
	C	88	94	6
	E	91	90	-1
	F	93	92	0
	Average of 5	91	91	1
Grove	A	94	95	1
	B	95	98	3
	C	89	90	1
	D	78	87	9
	E	92	92	1
	Average of 5	90	92	3
Laramie	A	64	71	6
	B	76	77	1
	C	73	76	4
	D	63	63	1
	E	69	62	-7
	F	69	57	-12
	Average of 6	69	69	-1
All	Average of 21	80	80	0

\*DNV GL. "Technical Assessment: Review of Shade Estimation Tool – Eagle View Technologies, Inc." Document No. 10123339-OAL-R-01-C, November 21, 2018.

# Why does this matter?

Simplify and speed up sales processes

Foundation for automated system design

De-Risk the solar lifecycle



eagleview