# Insights in AutoCAD What they mean for the way you work

**Ashish Arora** 

Engineering Manager, Product Analytics **Brian Souder** 

Sr. Principal Data Strategist

Khurram Tahir

Product Manager, Autodesk Product Insights Dan Whitcombe

Product Manager, AutoCAD

#### **Presenters**









**Ashish Arora**Engineering Manager, Product Analytics

**Brian Souder**Sr. Principal Data Strategist

Khurram Tahir Sr. Product Manager, Autodesk Product Insights (moderator)

**Dan Whitcombe**Product Manager,

AutoCAD

#### Safe Harbor

The presentations today may contain forward-looking statements about our strategies, products, future results, performance or achievements, financial, operational and otherwise, including statements about our strategic priorities, business model transition, and guidance for the fiscal year 2021 and beyond; our long term financial and operational goals; our M&A strategy; and our capital allocation initiatives. These statements reflect management's current expectations, estimates and assumptions based on the information currently available to us. These forward-looking statements are not guarantees of future performance and involve significant risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from results, performance or achievements expressed or implied by the forward-looking statements contained in these presentations, such as a failure to successfully integrate acquired businesses; developments in the COVID-19 pandemic and the resulting impact on our business and operations; general market, political, economic, and business conditions; complete transitions to new business model and markets; failure of the construction industry to grow as anticipated; failure to develop new products; failure to successfully expand adoption of our products; and failure of product changes to have the desired benefits.

A discussion of factors that may affect future results is contained in our most recent Form 10-K and Form 10-Q filings available at www.sec.gov, including descriptions of the risk factors that may impact us and the forward-looking statements made in these presentations. The forward-looking statements made in these presentations are being made as of the time and date of their live presentation. If these presentations are reviewed after the time and date of their live presentation, even if subsequently made available by us, on our website or otherwise, these presentations may not contain current or accurate information. We disclaim any obligation to update or revise any forward-looking statement based on new information, future events or otherwise.

#### Non-GAAP Financial Measures

These presentations include certain non-GAAP financial measures. Please see the section entitled "Reconciliation of GAAP Financial Measures to non-GAAP Financial Measures" in the Appendices attached to the presentations for an explanation of management's use of these measures and a reconciliation of the most directly comparable GAAP financial measures.

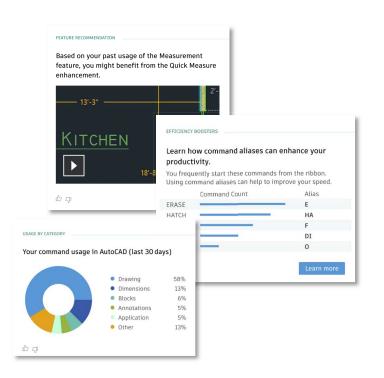
## Agenda

- A Closer Look at Insights
- Insights Factory Tour
- Future of Insights in AutoCAD





## What is an insight



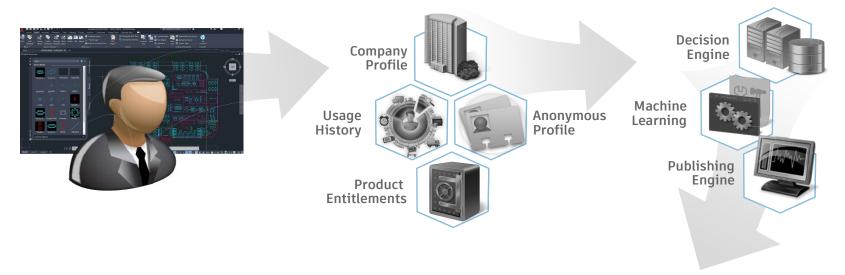
## Personalized

Timely

Actionable

Convenient

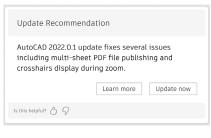
## **My Insights**

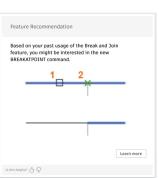




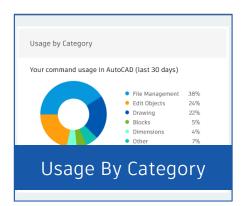


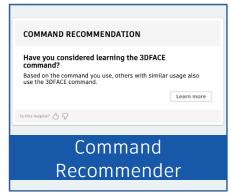


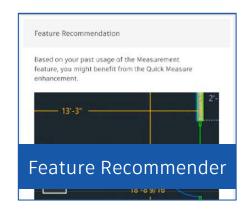




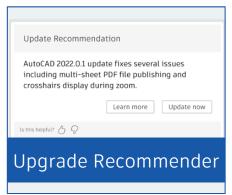
#### **Insight Themes**

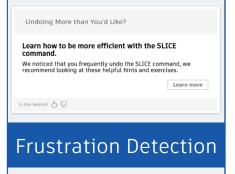


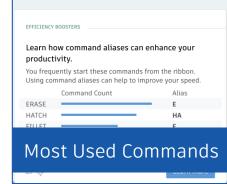


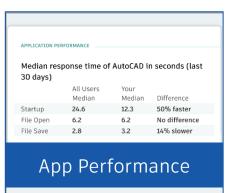




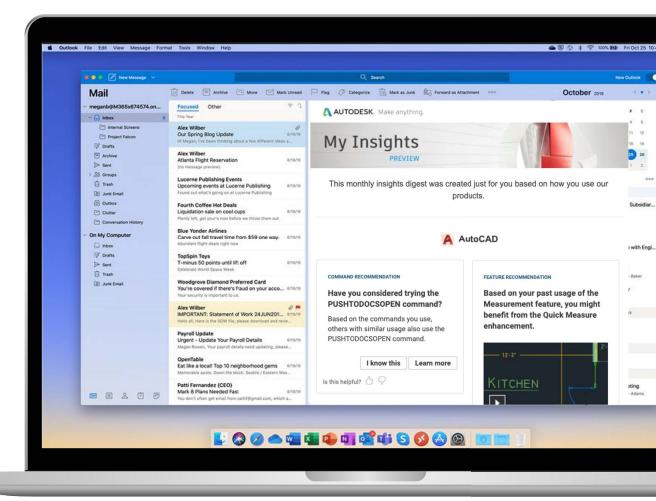




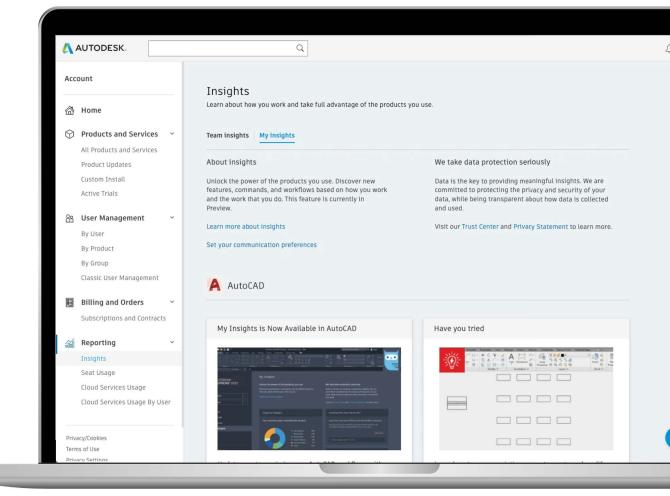




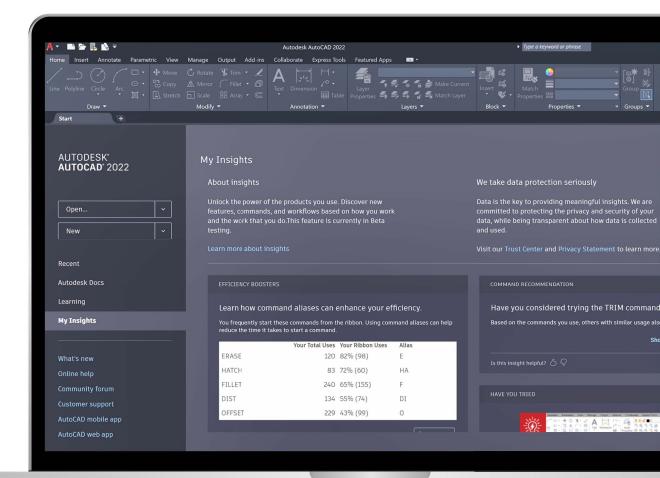
#### My Insights: Monthly Email



#### My Insights: Autodesk Account



#### My Insights: AutoCAD Start Tab





## **Guiding Principles**



**Customer first** 



**Trust and privacy** 

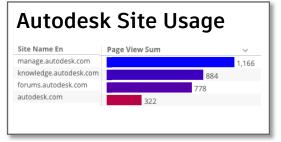


AI + Human

## Our raw materials?

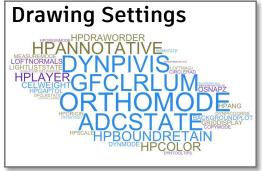
#### Raw materials

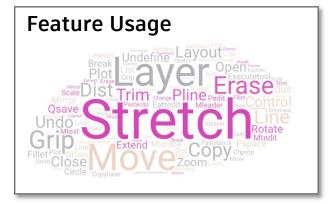








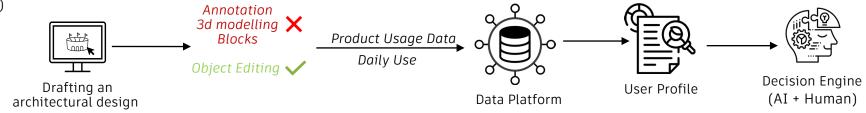


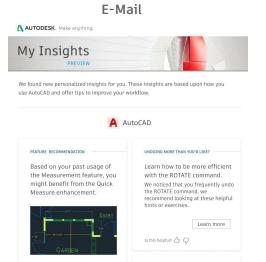


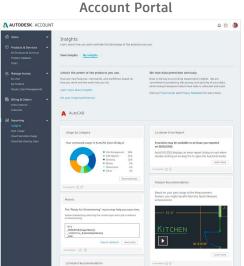
# Making of an insight

Rachel (CAD Drafter)









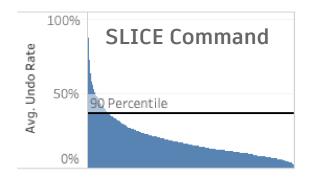




# Helping users that are struggling to use AutoCAD

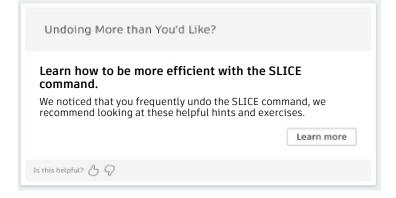
Frustration Detection Insight

- 1. Command Difficulty
- 2. User Learning Curve



Command 💌	Usage <b>■</b> UNDO	Count 🔽 Undo	Rate 💌
SLICE	51	32	63%
LOFT	62	29	47%
SUBTRACT	94	40	43%







# How to intelligently highlight commands that users might want to learn next

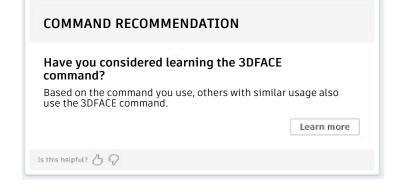
Command Recommender

Netflix-Style Collaborative Filter Machine Learning

Users	Line	Arc	Circle	Pline	Dim
2FHKRHW6UQV8	4	4	×	×	4
JMJGJMTWRHHC	4	×	4	4	4
GME6JDMEC99T	×	4	4	4	×
85QZK2ERZTLV	4	4	×	4	4
54U2Q9HGNMAV	×	×	4	4	4
HZ38Q5KK7HRL	4	4	×	4	4
8XABNACNXMMM	4	4	4	4	4
ZPU5KKM4RH6B	×	4	4	4	4
952DM5VZENKX	×	4	4	4	4
R944KNVJ6VZ4	×	×	4	4	4
5ZVAMMQ4F8A5	4	4	×	4	4

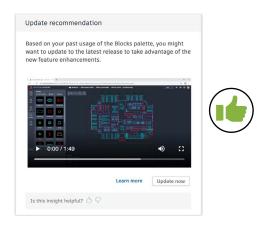
Command Name	Rating
MEASUREGEOM	2.9
AUTOPUBLISH	2.7
3DFACE	2.6

Deliver Insights

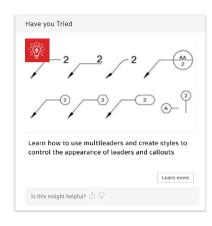




#### **Feedback**







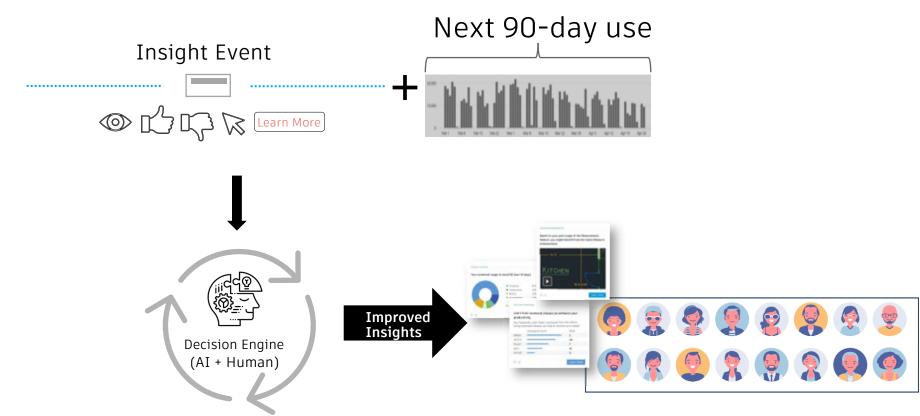








#### Decision Engine learns from user interaction



Reinforced Learning



#### **Customer Feedback**

"This feature is very very useful when it comes to improving my overall drafting efficiency. Love it!"

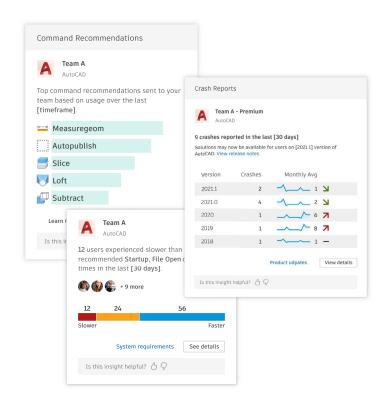
"I've added the new improved MEASUREGEOM command to my repertoire. Powerful measuring tool."

"Despite using AutoCAD for 30 years, I'm appreciating the tips. Sometimes I have overlooked a new command or just keep doing things the way I always have so I'm finding them valuable."

# Where are we going next?

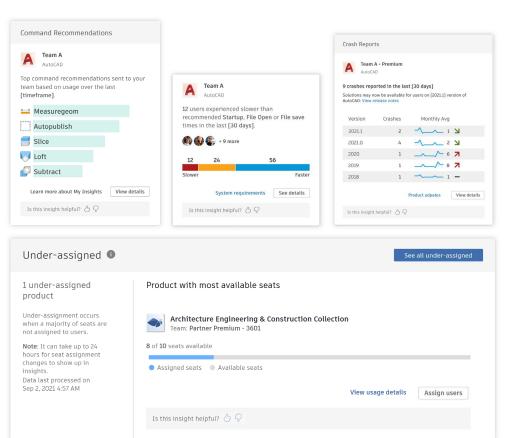
## **Team Usage Insights**





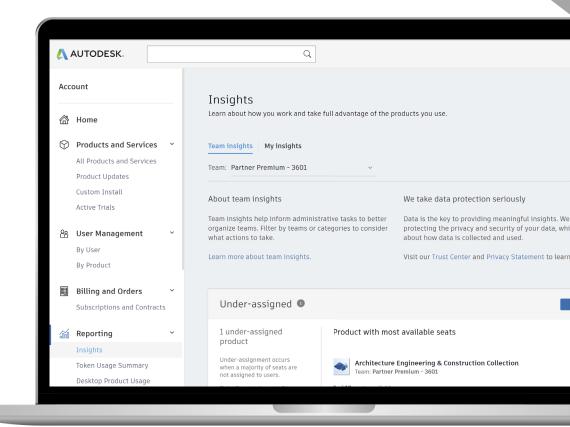
#### **Team Usage Insights**

 Insightful bird's eye view of how your team uses AutoCAD



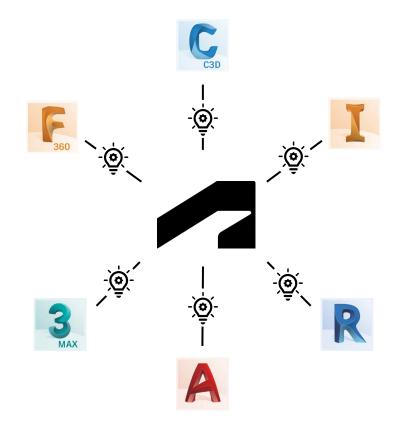
#### Team Usage Insights

- Insightful bird's eye view of how your team uses AutoCAD
- Available to primary AutoCAD admin via
   Autodesk Account



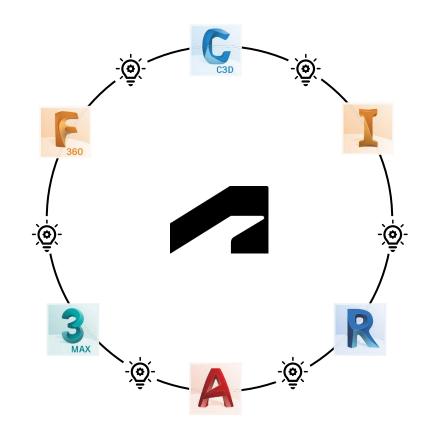
## **Looking ahead**

Bringing insights to more Autodesk products



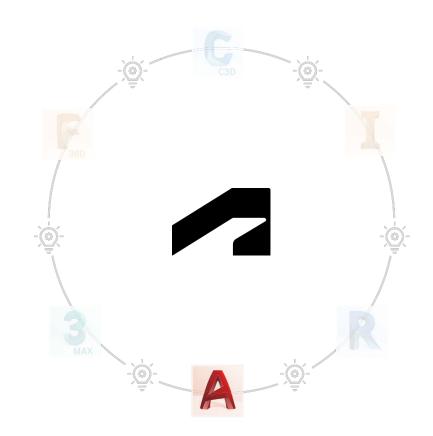
#### **Looking ahead**

- Bringing insights to more Autodesk products
- Providing valuable crossproduct insights



## **Looking ahead**

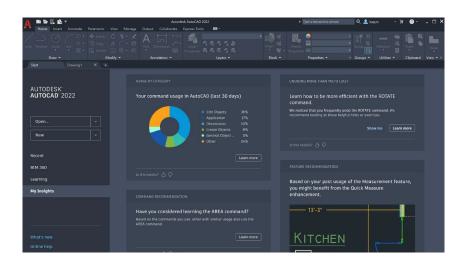
- Bringing insights to more Autodesk products
- Providing valuable crossproduct insights
- Going deeper in AutoCAD



#### **In-product AutoCAD features**

#### **My Insights: Dashboard**

Available today with AutoCAD 2022.1

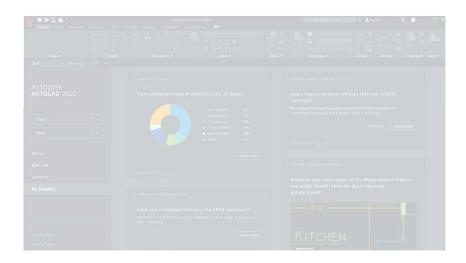


In-product aggregate view of your personalized product usage insights

#### **In-product AutoCAD features**

#### **My Insights: Dashboard**

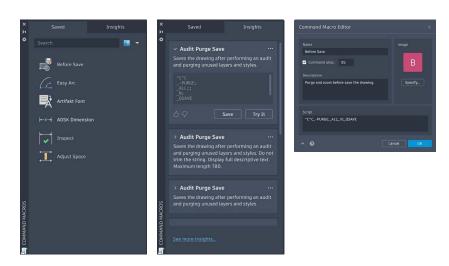
Available today with AutoCAD 2022.1



In-product aggregate view of your personalized product usage insights

#### **My Insights: Macro Advisor**

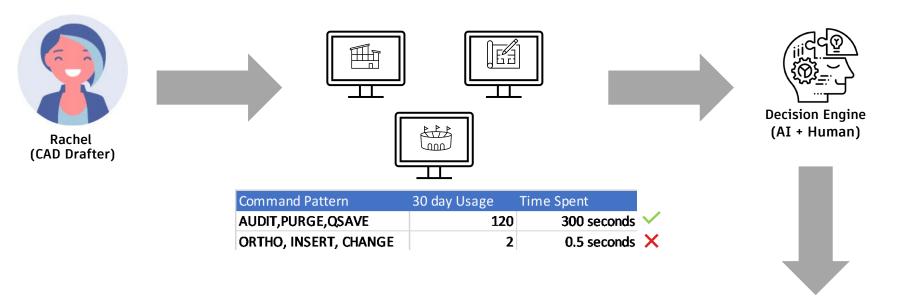
In-progress



Personalized non-intrusive command macro suggestions surfaced in-workflow and relevant to the way you work

# Click here to view "Macro Advisor" feature demo

#### **My Insights: Macro Advisor**

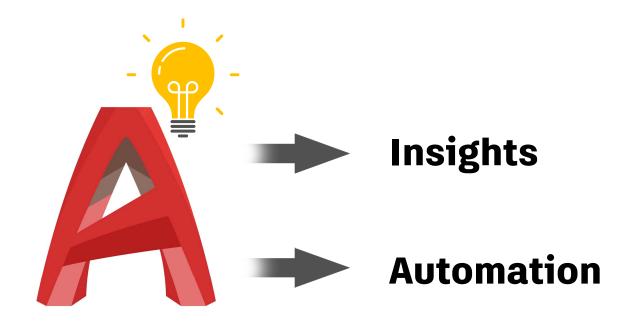




#### **Evolution of the AutoCAD legacy**



#### **Evolution of the AutoCAD legacy**



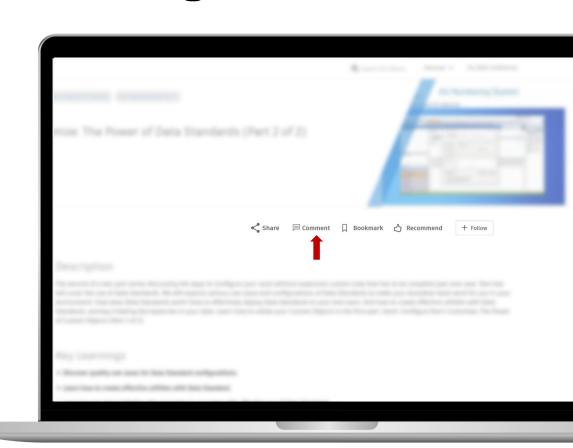
#### AU events/classes to learn more:

- Keynotes Autodesk, AEC, AutoCAD
- Class AutoCAD Markup and Collaborative Feedback

## We want to hear from you!

#### Engage with the future of insights

Leave a comment on our AU class page to let us know the types of insights you want to see in the future!



# AUTODESK UNIVERSITY