

2022 Winter Workshop | December 14 & 15

## Autodesk Takeoff

Hands-on workshop

Nicole Thomas AEC Education Account Manager| Autodesk Education



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### About me



### **Nicole Thomas**

AEC Education Account Manager Autodesk, Inc.

- Located near Salt Lake City, Utah
- Joined Autodesk in 2016
- AEC industry experience in Design, Support, Consulting, & BIM/VDC Management

Email | nicole.thomas@autodesk.com

### **Zoom Housekeeping**



#### Key Zoom Notes

- 1) Audio Options
- 2) Mute / Unmute & Video Status
- 3) Additional features menu (R-click)
  - Virtual background / filter
  - Profile picture
  - Change displayed name
- 4) Attendee view options
- 5) Meeting being recorded
- 6) Participants list pane
- 7) Chat (Q&A)
- 8) Share screen if applicable

### **Event Q&A in Slido**

How to join:

OR

• Scan the QR code



• Go to Slido.com and enter code #2330806

- Enter your email address & name
- Confirm email with verification code

⊊Q&A	,∣∣ Polls	
S Type your question		
Popular Recent		6 questions
S Steve Strickland 4 weeks ago		2 🖒
How do I use Navisworks with ACC?		
Nicole Thomas 4 weeks ago		2 凸
What's the difference between BIM 360 a	nd ACC?	
Welcome to		
Autodesk Digital Construction	Verify your email	×

Autodesk Digital Construction	Verify your email	
School - Winter 2022 Nov 14 - Dec 15, 2022	Please check your email inbox for PIN code we have sent you to	
Email address *	Enter verification code	
8 Full name *	Confirm	
✓ I agree to use my profile details while using Sildo. Learn more	Resend code	
Join event	Didn't get the email? Check also spam and junk folders.	
Back to search		

### **Workshop session details**



- Autodesk ID email MUST match registration email
- Project Invite emails sent to all workshop registrants for both imperial & metric projects from: <u>acc-no-reply@autodesk.com</u>
  - Go to your Project
  - Sign in or Create Account
- Content is repeated everyday for all workshop sessions
- No software installations required for training
- Google Chrome is recommended browser
- Licenses & projects active for 30 days

Questions - Email us at construction.cloud.edu@autodesk.com

### Autodesk Takeoff workshop dates and times

*Times shown are U.S. Eastern Time	DAY 1 Wednesday, December 14 <sup>th</sup>	DAY 2 Thursday, December 15 <sup>th</sup>	
11:00 – 11:15 am	WELCOME / OPENING REMARKS		
11:15 am – 12:30 pm	Autodesk Docs Document Management	<b>Autodesk Takeoff</b> 2D & 3D Quantity Takeoff	
12:45 – 2:00 pm	Autodesk BIM Collaborate 3D Model Coordination	Autodesk Build Project & Field Management	
2:00 – 2:30 pm	OPEN OFFICE HOURS / Q&A		
2:30 – 3:45 pm	Autodesk Build Project & Field Management	Autodesk BIM Collaborate 3D Model Coordination	
4:00 – 5:15 pm	<b>Autodesk Takeoff</b> 2D & 3D Quantity Takeoff	Autodesk Docs Document Management	

### **Presentation agenda**

- About Autodesk Takeoff
- Student Exercises
- Project administration and setup
- Autodesk Takeoff (Hands on)
- Learning resources and case studies
- Q & A





## Autodesk Takeoff

Classroom ready exercises

### **Classroom ready exercises**

**Autodesk Construction Cloud** 

## Autodesk Takeoff for quantification

- 2D takeoff workflows
- 3D takeoff workflows

### **Autodesk Docs**

Document management

Course applications Construction estimating 1 & 2 Introduction to BIM

### Assets include:

For educators

- Getting started guide
- Exercise answer key
- FAQ
- Datasets (RVT, PDF, XLS)

#### For students

 Getting started guide and exercises

### **Classroom ready exercises**

#### **Autodesk Construction Cloud**



#### Available now for download !

#### Autodesk Construction Cloud classroom assets

Access student exercises for preconstruction and field management using a cloud-based construction platform to reduce project risk and improve efficiency.



#### Autodesk Takeoff for quantification

These exercises introduce students on how to quantify projects for estimating in Autodesk Takeoff from 2D sheets and 3D models.

 $\bigcirc$  Download assets



#### Autodesk Build for field management

These exercises introduce students on how to manage building projects in Autodesk Build using RFIs, checklists, and submittals.

 $\bigcirc$  Download assets

Coming in 2023 – Model Coordination with BIM Collaborate

### Workshop prework

#### Autodesk Takeoff



Launch Google Chrome





Login acc.autodesk.com



Open project Autodesk DCS Winter 2022 - Imperial or Metric





Account name: Autodesk Education Training

### Workshop prework

#### **Autodesk Takeoff**



Set Module to Docs





Download

Autodesk Takeoff





## **About Autodesk Takeoff**

### **Autodesk Construction Cloud Products**



#### AUTODESK Takeoff

Enable estimators to perform more accurate 2D takeoffs and generate automated quantities from 3D models.



2D Takeoff



3D Takeoff



Scope Analysis



Document Management





### **Autodesk Quantification and Estimating tools**



Quantification: 2D and 3D



Quantification: 3D model-based Advanced rule-based quantification Advanced visualization

## PrůEst

A cloud-based cost estimating solution Works with third-party cost databases to streamline estimation workflows



## **Autodesk Takeoff**

Student Exercises – 2D Takeoff

#### Autodesk Takeoff

Sheet S101:

Columns W 10 X 49

Count \_\_\_\_\_each

Footings—72" x 48" x 18" (1.83 m x 1.22 m x 0.46 m)

Count \_\_\_\_\_ each

\_\_\_\_\_ cubic yards or cubic meters

Footings—96" x 72" x 18" (2.44 m x 1.83 m x 0.46 m)

Count \_\_\_\_\_ each

cubic yards or cubic meters



#### Autodesk Takeoff

Sheet S101 & A401:

Foundation 12"—Concrete (0.30 m)

- Wall Height \_\_\_\_\_\_ feet and inches or meters
- Distance \_\_\_\_\_ linear feet or meters
- Volume \_\_\_\_\_\_ cubic yards or cubic meters

Foundation 20"-Concrete (0.51 m)

- Wall Height \_\_\_\_\_\_ feet and inches or meters
- Distance \_\_\_\_\_ linear feet or meters
- Volume \_\_\_\_\_\_ cubic yards or cubic meters



#### Autodesk Takeoff

Sheet S101:

Floor—Concrete 4" (0.10 m)

- Area \_\_\_\_\_\_ squared feet or squared meters
- Volume \_\_\_\_\_ cubic yards or cubic meters

Calculate the total cubic yards or cubic meters of concrete for the project (floors, footings, and walls). Solve by hand or use formulas in Microsoft Excel after exporting the inventory table. Round up or down to the nearest whole integer.

Total volume \_\_\_\_\_ cubic yards or cubic meters





## **Autodesk Takeoff**

Student Exercises – 3D Takeoff

#### Autodesk Takeoff

#### Revit 2022\_Small Bldg\_All disciplines.rvt:

Windows 60" w x 60" h

Count \_\_\_\_\_ each

#### Windows 72" w x 60" h

Count \_\_\_\_\_ each

Windows 60" w x 48" h

#### Count \_\_\_\_\_ each



#### Autodesk Takeoff

#### Revit 2022\_Small Bldg\_All disciplines.rvt:

Exterior-Brick on Mtl. Stud

- Area \_\_\_\_\_\_ squared feet or squared meters
- Length \_\_\_\_\_\_ linear feet or meters

Interior—4 7/8" Partition

- Area \_\_\_\_\_\_ squared feet or squared meters
- Length \_\_\_\_\_\_ linear feet or meters



#### Autodesk Takeoff

#### Revit 2022\_Small Bldg\_All disciplines.rvt:

Floor 4" - Concrete

- Area \_\_\_\_\_\_ squared feet or squared meters
- Volume \_\_\_\_\_ cubic yards or cubic meters

Foundation 12" – Concrete

- Area \_\_\_\_\_\_ squared feet or squared meters
- Length \_\_\_\_\_\_ linear feet or meters
- Volume \_\_\_\_\_\_ cubic yards or cubic meters

#### Footing 20" - Concrete

- Area \_\_\_\_\_\_ squared feet or squared meters
- Length \_\_\_\_\_\_ linear feet or meters
- Volume \_\_\_\_\_\_ cubic yards or cubic meters





## **Autodesk Takeoff**

Project administration and setup

### **Project Admin & Setup**

- 1. Assign users licenses
- 2. Create Project
- 3. Set up Folders & Permissions
- 4. Add Users
- 5. Assign Module Access
- 6. Define Classification
- 7. Upload Files
- 8. Publish Files to Takeoff
- 9. Create Package

Welcome, Nicole Here's what's happening on your project today.		111 Mcinnis Parkway San Rafael, CA 94903, United States
Getting Started		
Define classification and measurement systems for your project in Settings.	eps: 2 Upload 2D and 3D files in Sheets & Models to use during takeoff.	3 Treate takeoff packages to organize your scopes of work.

### **Project admin – Define Classification**



### **Project admin – Upload & Publish Files**



### **Project admin – Create Packages**

AU	TODESK Construction Cloud				
	Takeoff 👻	Your Project Name 🔹 🔹			
$\widehat{\mathbf{w}}$	Home				
۲	Packages 1	Packages			
	Sheets & Models	Nicole, organize	vour takec	off work into packages	
C	Files	Group work into takeoff packages to keep quantities separate and organized. Open a package to start takeoff.			
00	Members	Take the tour Learn	more		
Ś	Settings				
		Work in progress			
		work in progress	+ Create p	backage 2	🔄 Save snapshot 🔀 Export all 🔍 S
			Title ^		Updated by
				Create package	×
				Enter a title	
					Can 4 Create package



## Autodesk Takeoff

Hands on Demonstration

### Workshop prework

#### Autodesk Takeoff



Launch Google Chrome





Login acc.autodesk.com



Open project Autodesk DCS Winter 2022 - Imperial / Metric





Account name: Autodesk Education Training

### Autodesk Takeoff hands-on

- Autodesk Takeoff user interface overview
- Packages
- 2D Takeoff
  - $\circ$  Count
  - $\circ$  Linear
  - $\circ$  Area
- 3D Takeoff
- Inventory & Export





## Autodesk Takeoff

Learning resources and case studies

### Learning resources

#### Autodesk Takeoff

Learn Autodesk Construction Cloud portal





Curriculum (14 min)			
Introduction to Autodesk Takeoff (1 min)			
Getting Started in Takeoff			
Account Navigation Basics (3 min)			
Project Navigation (1 min)			
Project Home (1 min)			
Packages Settings (3 min)			
Exporting Classification Systems (1 min)			
Where to Find Help			
Help Resources (3 min)			
🖼 Short Survey			
Conclusion			
📄 Course Wrap-Up			
📄 Related Content			

Training and Support

#### Partial listing shown

### **Case studies**

Autodesk Takeoff



WATCH



How Autodesk Takeoff Slashes Quantity Takeoff Time for Carroll Estimating

Carroll Estimating supports main building contractors and developers to understand their tender and construction costs b.....

**Customer Story** 



DPR Enhances Its Quantification Workflows with Autodesk Takeoff, Saving Time and Resources

DPR Construction (DPR) exists to build great things. To help deliver great results for its customers, DPR is partnering .....



Windover Construction Reduces Quantity Takeoff Time by More Than 50% with Autodesk Takeoff

Windover Construction (Windover) is a construction management firm that takes an outcome-focused approach to projects, a.....

Customer Story

READ

READ

Customer Story

# Questions and Answers

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