BIM 360 and the Power of the Cloud

Brendan Dillon

Digital Facilities & Infrastructure Program Manager



Brendan Dillon

Digital Facilities & Infrastructure Program Manager

DEN is the sixth busiest airport in the United States and has developed a comprehensive BIM and Asset Management plan unsurpassed by any airport in the country. DEN's DFI program manages over 120 projects at a time with a net value in excess of \$2 billion. Prior to joining DEN, he had managed over \$1B in BIM projects, including as the BIM standards coordinator for the design team on Denver International Airport's South Terminal Redevelopment Project. Brendan is also the founder of the annual Airport Information Integration and Innovation (AI3) forum and is the founder of Red5ive Consulting, specializing in BIM deployment and integration for airports.

Emmy Thammasine

BIM/Asset Manager of the Special Projects Division

Sonepraseuth Emmy Thammasine is the BIM/Asset Manager of the Special Projects Division at Denver International Airport, DEN, and currently managing the "Great Hall Project," a major redevelopment of the airport's main terminal. DEN has grown and has become of the busiest airports in the world, and in the BIM and Asset Management world, DEN has set the bar high for Airports by being a leader in BIM Technology and Innovation. Emmy has contributed to DEN's BIM adoption and implementation in ways of research & development, establishing standard operating protocols and discovering solutions to enhance existing workflows & procedures and turning latest ideas and visions into realty. If he wasn't busy with managing projects, it'd be hard getting him to step away from Dynamo.

Ignacio De La Hera Sola

Senior Architect

Ignacio De La Hera Sola is a senior architect experienced in overall project lifecycle management, including design, construction, coordination, and execution. Ignacio is currently a BIM Manager at Ferrovial Agroman US corp. and working on the remodeling and commercial operation of the Jeppesen terminal at Denver International Airport, handling the BIM process from the conceptual stage through design, preconstruction, execution and maintenance.

Between 2015 and 2017, Ignacio worked in the BIM Department in TYPSA, a multidisciplinary team focused on providing support to the design and management teams in implementing BIM processes on projects, gathering state-of-the-art information, developing procedures and helping to consolidate and increase company's BIM related "know-how" and, therefore, its overall capacities

BIM 360 and the Power of the Cloud

Denver International Airport (DEN) has been capitalizing on the value of the BIM 360 platform for 8 years. Now DEN is deploying the latest tools on the BIM 360 platform on more than \$2 billion worth of capital improvement projects, for every purpose from production, coordination, quality assurance, and review in design, to inspections, asset data capture, and quality assurance and quality control in construction, to transitioning to operations at handover. BIM 360 Design Collaboration, BIM 360 Glue software, Navisworks software, BIM 360 Model Coordination, BIM 360 Docs software, BIM 360 Insight software, and BIM 360 Field Management have all provided value to DEN. With the latest BIM tools, it is becoming increasingly clear that leadership in BIM adoption must begin with the owner as the ultimate customer for all facility data.

Learning Objectives

LEARNING OBJECTIVE 1

Understand how cloud services increasingly give building owners greater flexibility.

LEARNING OBJECTIVE 3

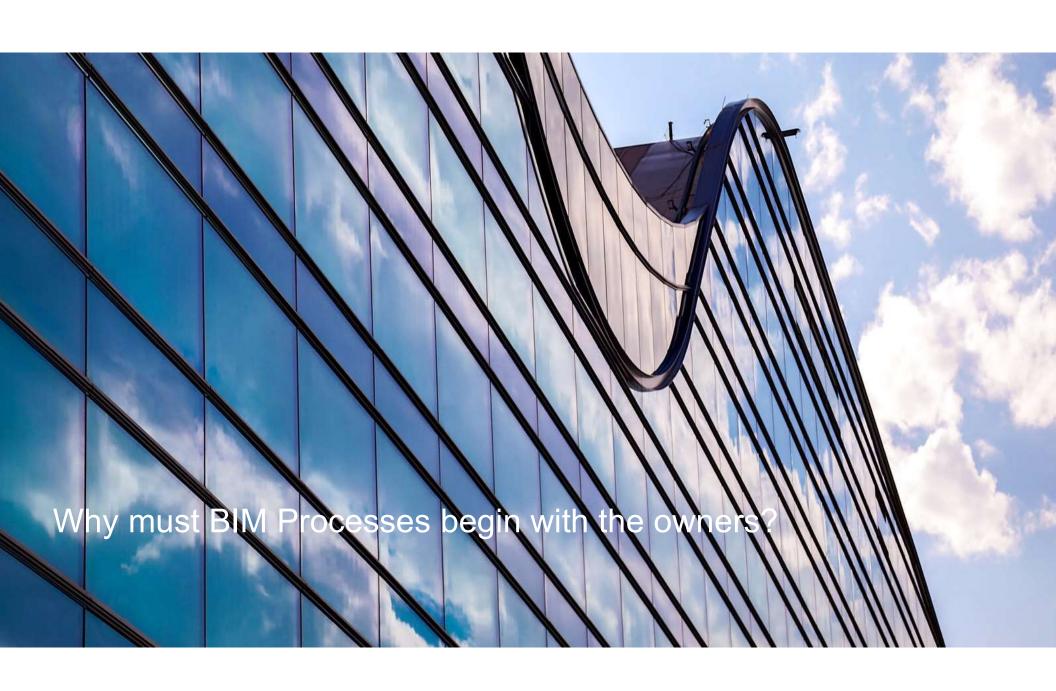
Learn how to use cloud services to improve productivity, reduce rework and waste, and enhance collaboration

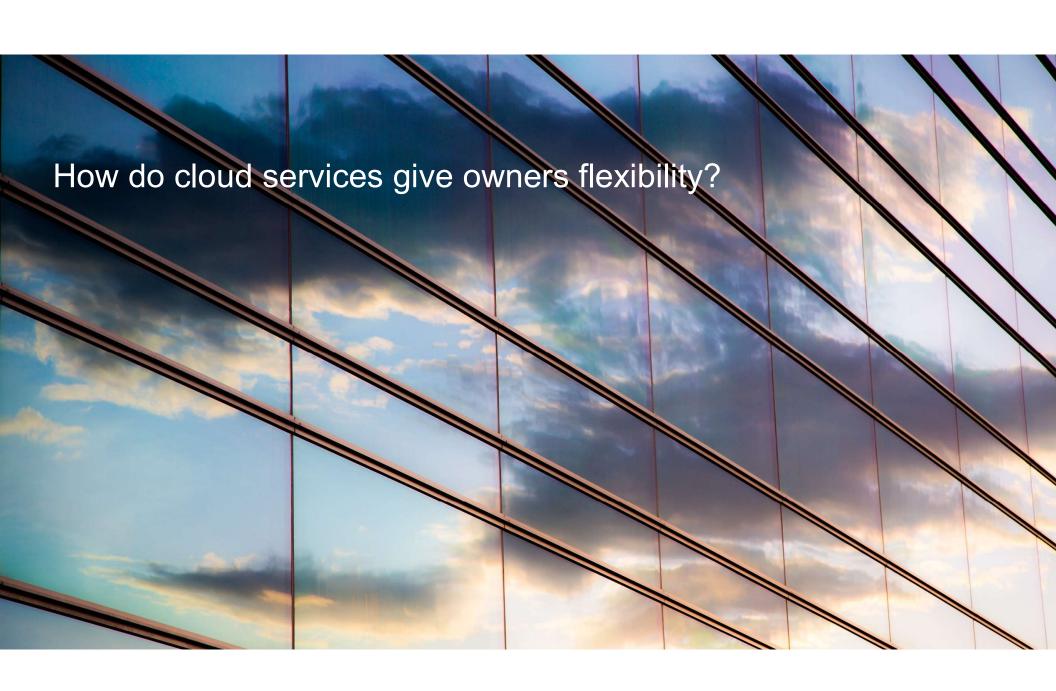
LEARNING OBJECTIVE 2

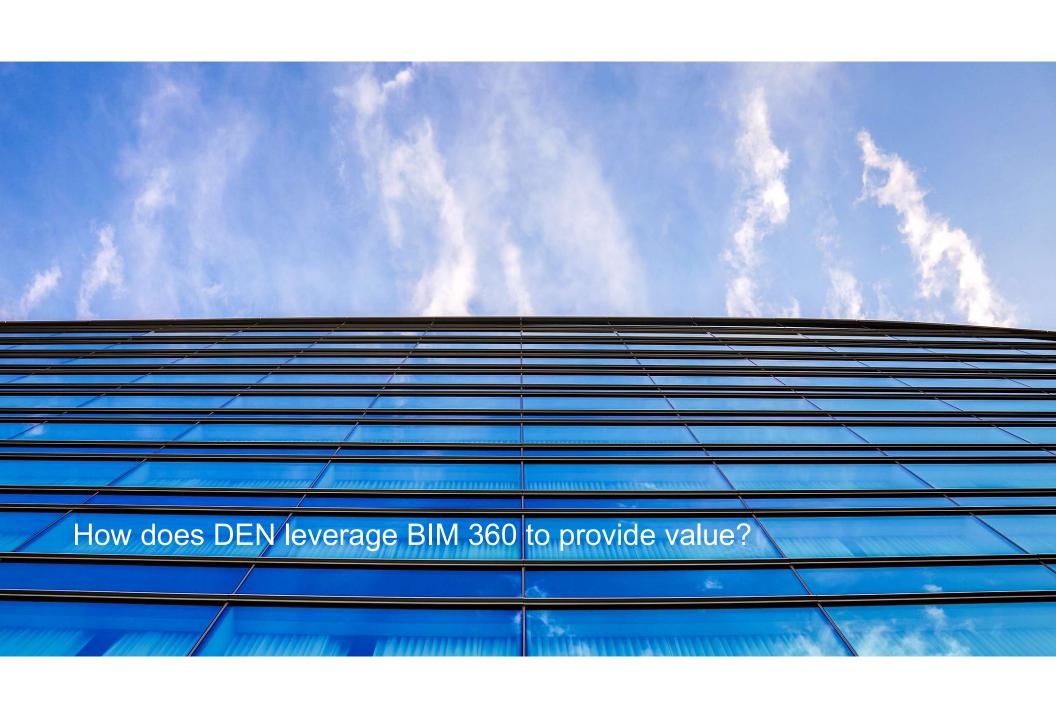
Discover how the 360 platform integrates, informs, and is informed by the needs of facility owners

LEARNING OBJECTIVE 4

Learn why BIM processes increasingly must begin with the owner







Activated Members 199 Active Projects: Design, Construction, Closeout, Warranty 500+ Partner Companies 700+ Users Members **Activated Projects** 150+ Internal Users 199 11 City Reviewers

Airport

246

Office

18

Streets / Roads / Highways

Quality in a service or product is not what you put into it. It is what the client or customer gets out of it.

Peter Drucker

DOCUMENT MANAGEMENT

Project Home



Insight



Document Management



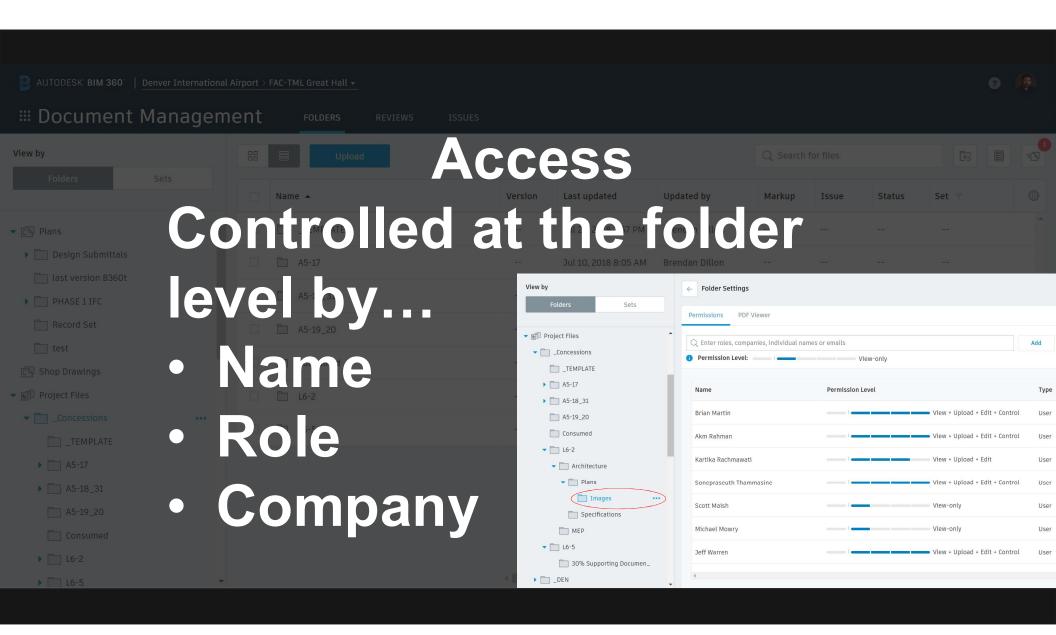
Project

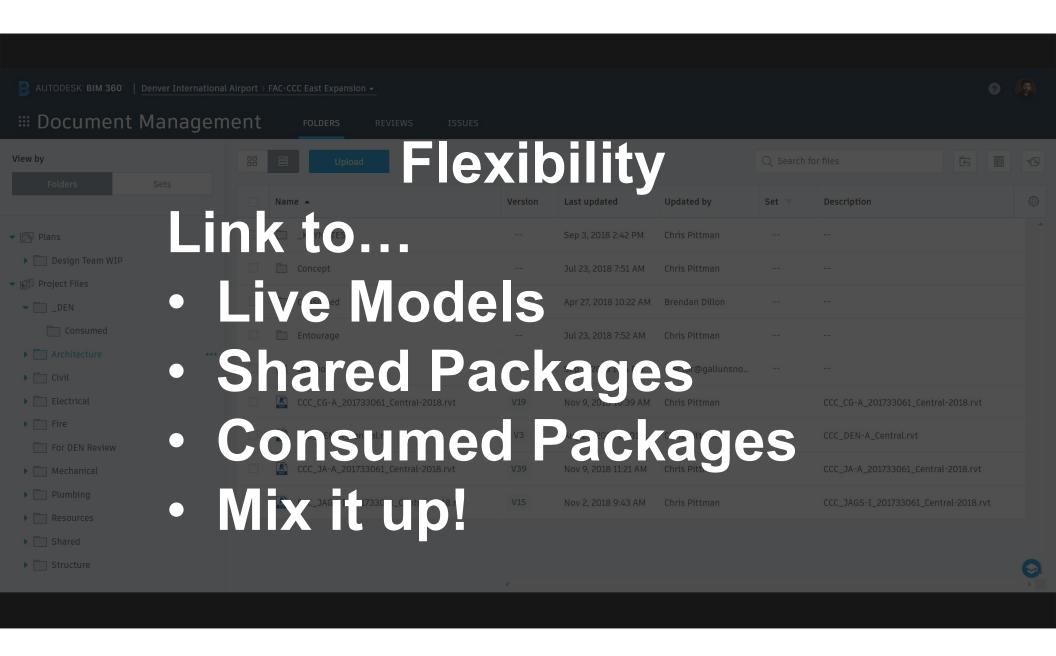


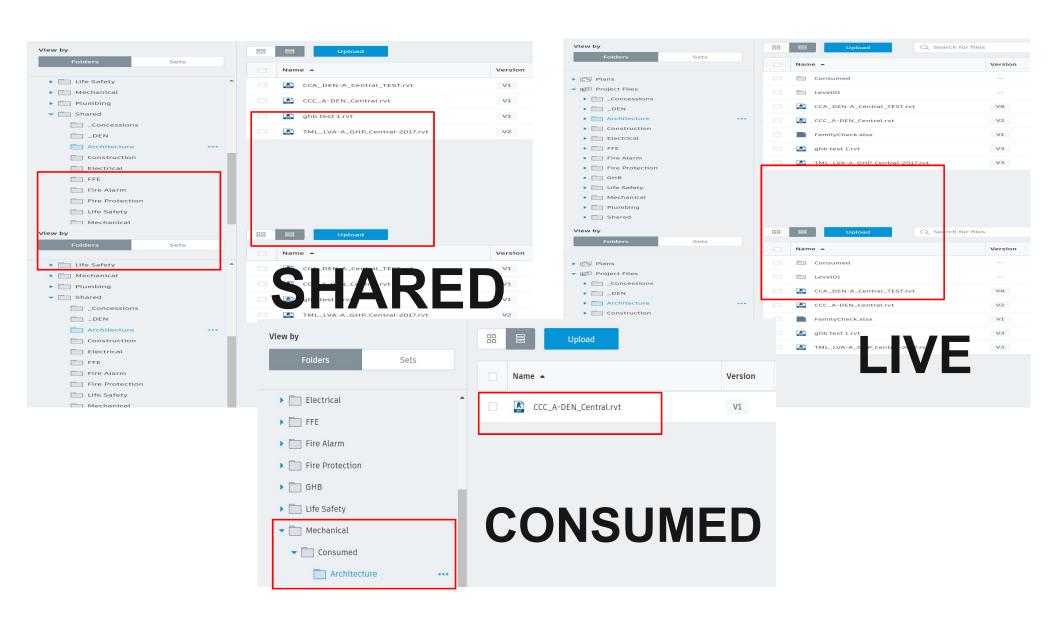
Design

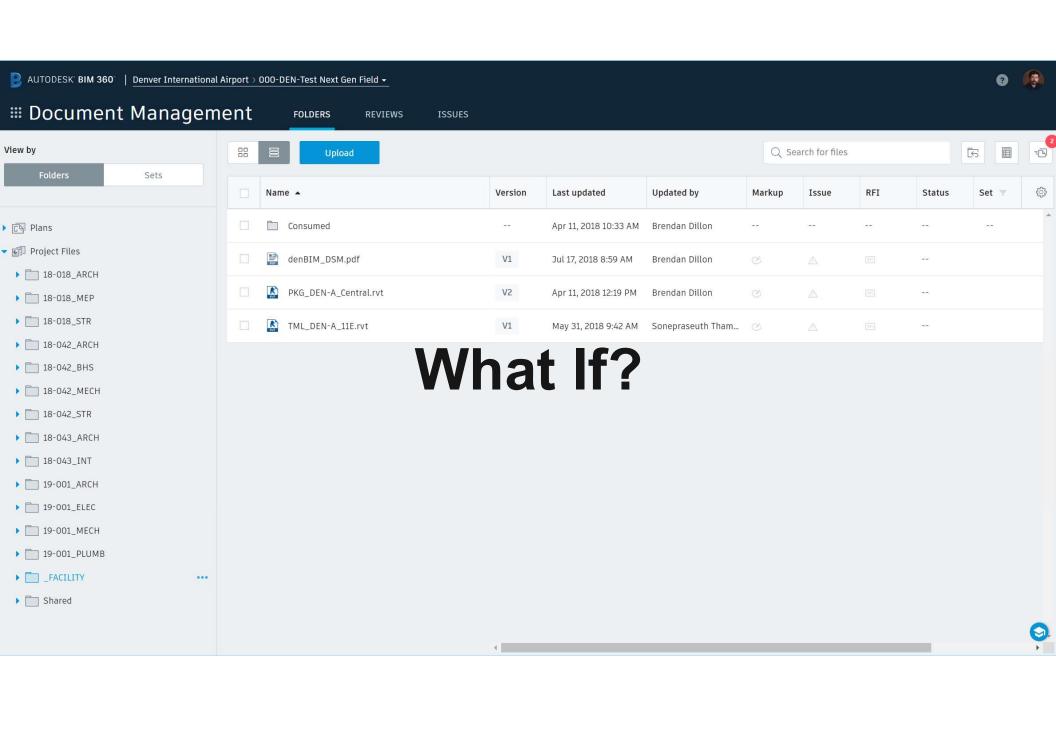


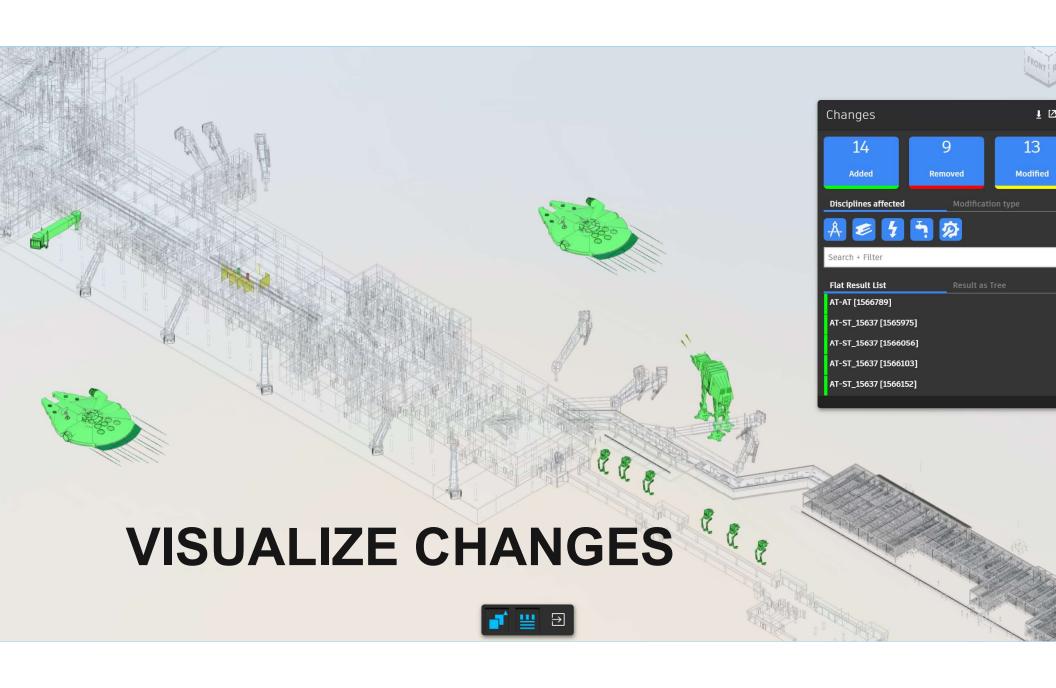
Model





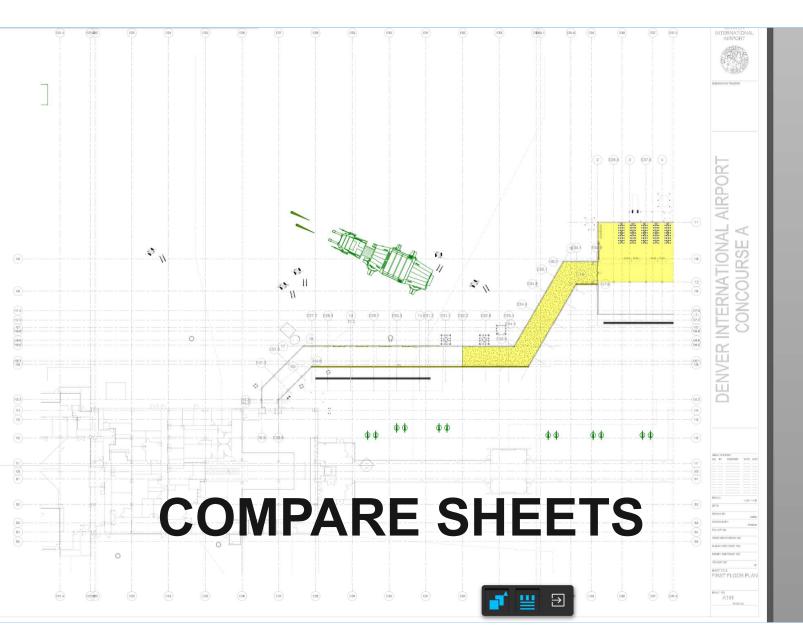


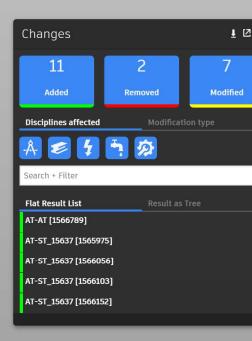












1	Name	Change	Modification Type	Properties
2	AT-AT [1566789]	added	and the second s	Production
3	AT-ST 15637 [1565975]	added		
4	AT-ST 15637 [1566056]	added		
5	AT-ST_15637 [1566103]	added	Evo	ort Changes
6	AT-ST_15637 [1566152]	added	CXP	ort Changes
7	AT-ST_15637 [1566269]	added		
8	AT-ST_15637 [1566428]	added		
9	Basic Wall [1553222]	added		
10	Basic Wall [1553223]	added		
11	Basic Wall [1553224]	added		
12	Basic Wall [552267]	modified	Transformation	
13	Basic Wall [552268]	modified	Transformation, Attribute	Length by 5.743', Area by 74.662' ² , Volume by 49.775 ft ³
14	Basic Wall [552303]	modified	Transformation, Attribute	Length by -1.595', Area by -20.730' ² , Volume by -9.501 ft ³
15	Basic Wall [552304]	modified	Transformation	
16	Basic Wall [552305]	modified	Transformation, Attribute	Length by -1.595', Area by -20.730' ² , Volume by -9.501 ft ³
17	Basic Wall [552306]	modified	Transformation, Attribute	Length by -1.595', Area by -20.730' ² , Volume by -9.501 ft ³
18	Basic Wall [552307]	modified	Transformation, Attribute	Length by -1.595', Area by -20.730' ² , Volume by -9.501 ft ³
19	Basic Wall [563464]	removed		
20	Basic Wall [563465]	removed		
21	Basic Wall [563466]	removed		
22	Basic Wall [568204]	modified	Geometry	
23	Basic Wall [568216]	removed		
24	Basic Wall [568217]	removed		
25	Basic Wall [568218]	removed		
26	Basic Wall [568219]	removed		

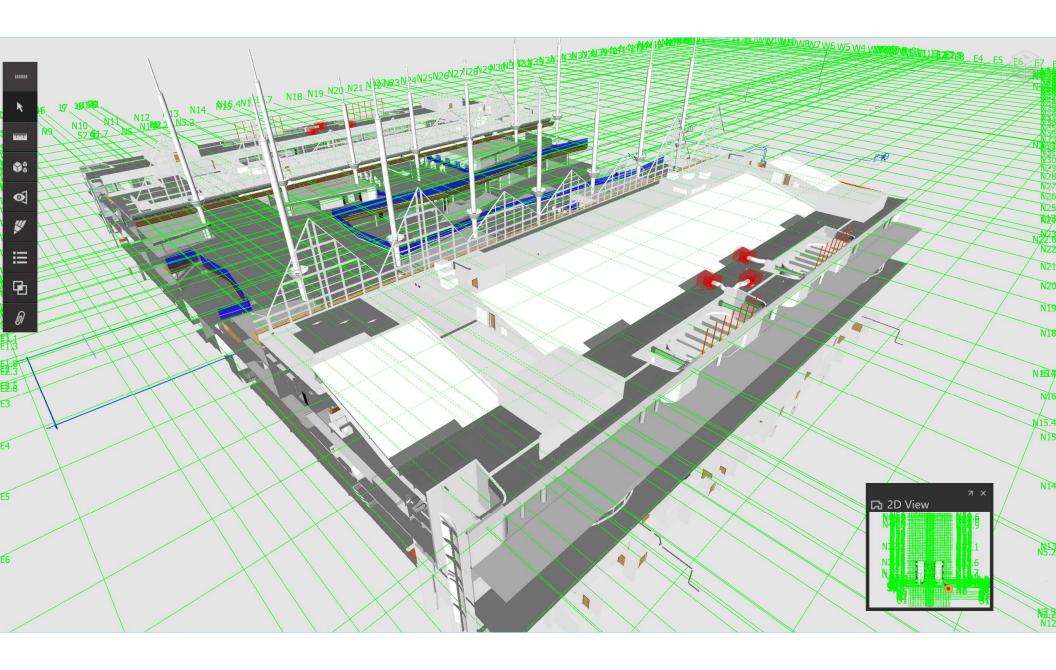


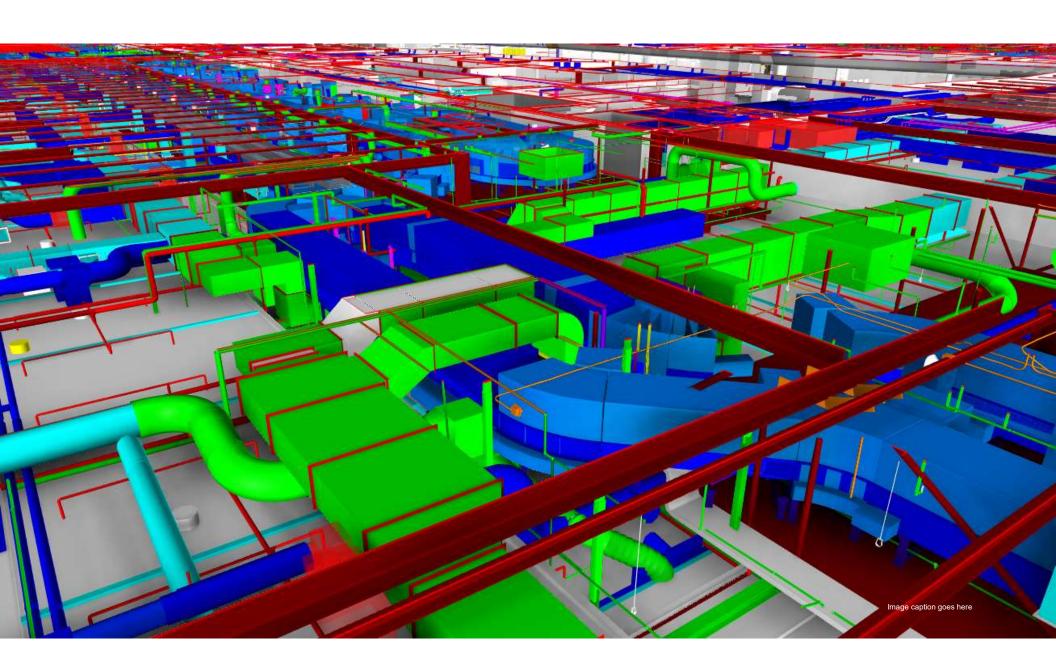
BIM 360 Glue

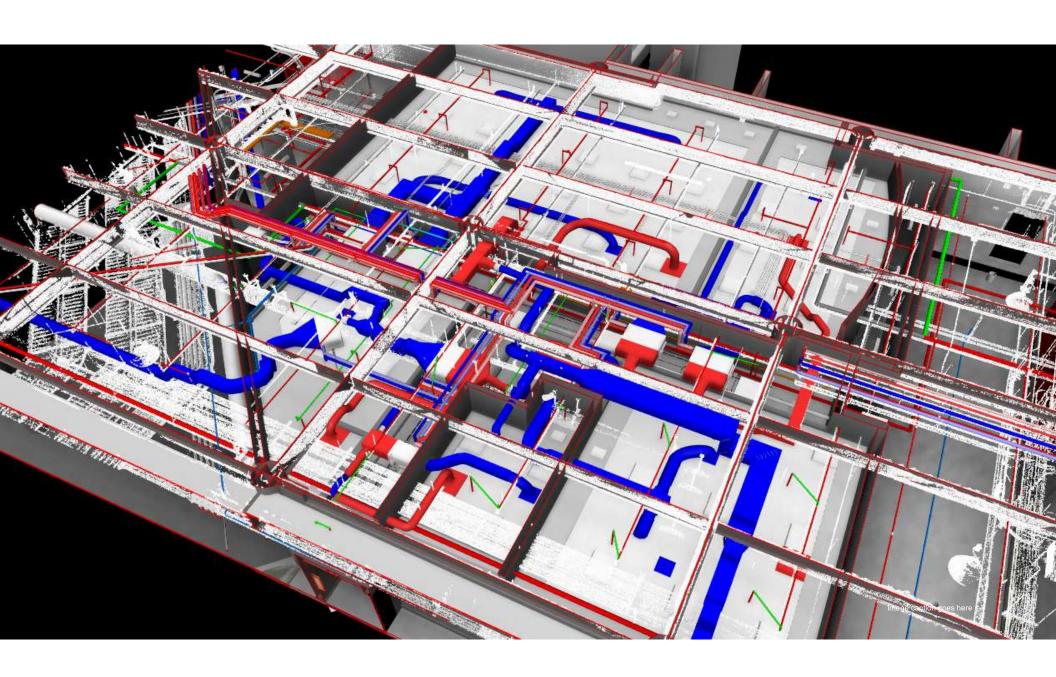
BIM 360 Field

Privacy | Terms and Conditions

© 2018 Autodesk Inc. All rights reserved.











Design Collaboration



Document Management



Project Management



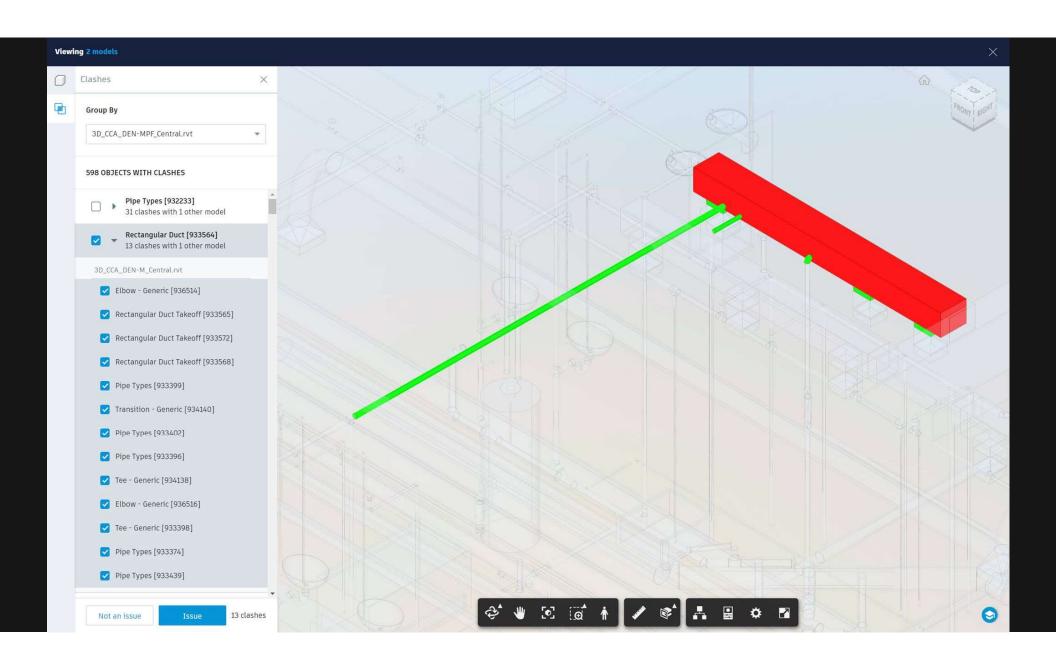


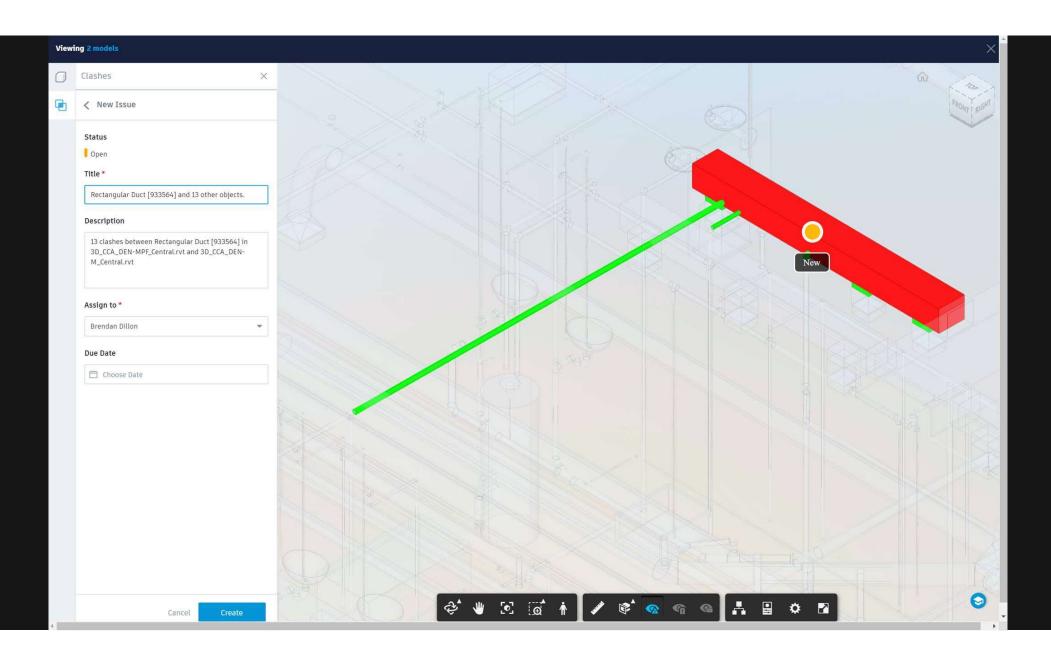


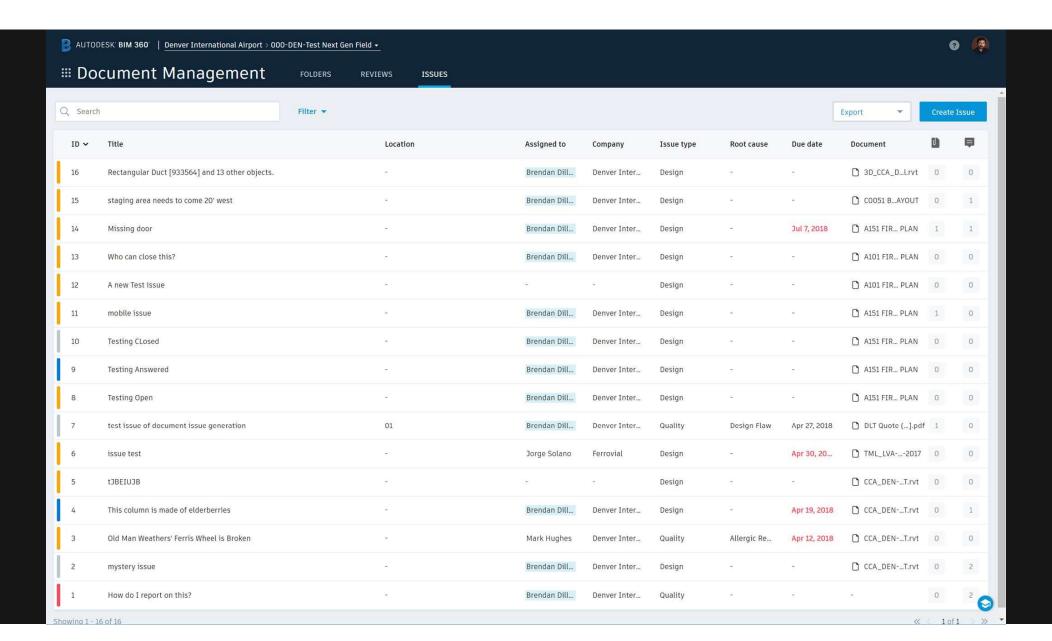




■ Model Coordination MODELS CLASHES												
Active Closed						Last updated Y	esterday at 18:32					
All models ✓ Q Search for models												
	3D_CCA_ DEN- A_Central.rvt	3D_CCA_ DEN- E_Central.rvt	3D_CCA_ DEN-MPF_ Central.rvt	3D_CCA_ DEN- M_Central.rvt	3D_CCA_ DEN- S_Central.rvt	3D_CCA_ DEN-TX_ Central.rvt	3D_CCA_ HNTB-A_ WESTEXP2017.rvt	3D_CCA_ SRI-MP_ WESTEXP2017.rvt				
3D_CCA_DEN-A_Central.rvt 532 clash groups		94	175	175	411	3						
3D_CCA_DEN-E_Central.rvt 268 clash groups	130		65	65	106	2						
3D_CCA_DEN-MPF_Central.rvt 1315 clash groups	392	82		598	454							
3D_CCA_DEN-M_Central.rvt 1315 clash groups	392	82	598		454							
3D_CCA_DEN-S_Central.rvt 417 clash groups	295	59	174	174								
3D_CCA_DEN-TX_Central.rvt 3 clash groups	1	2										









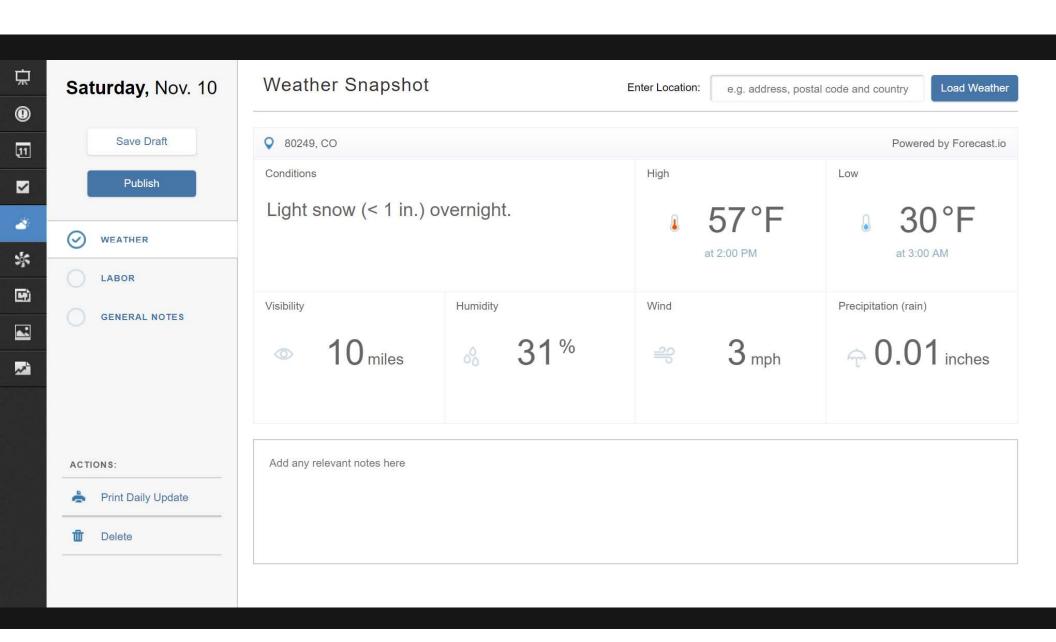
FIELD (CLASSIC)

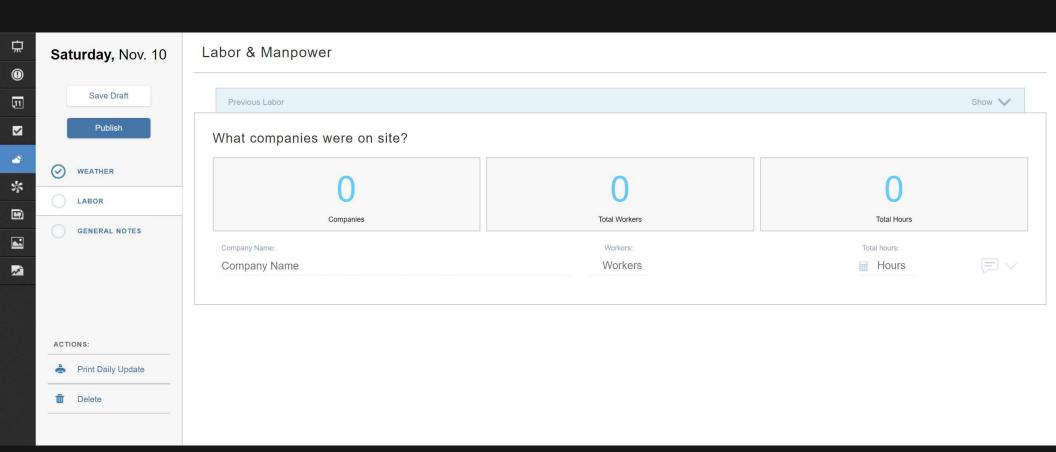
BIM 360 Field 🔀

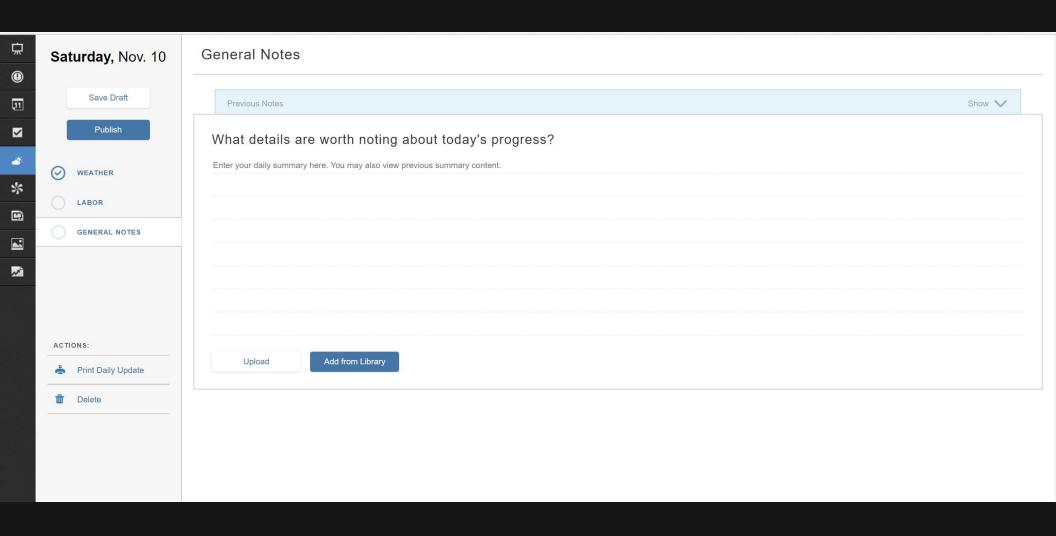
Privacy | Terms and Conditions

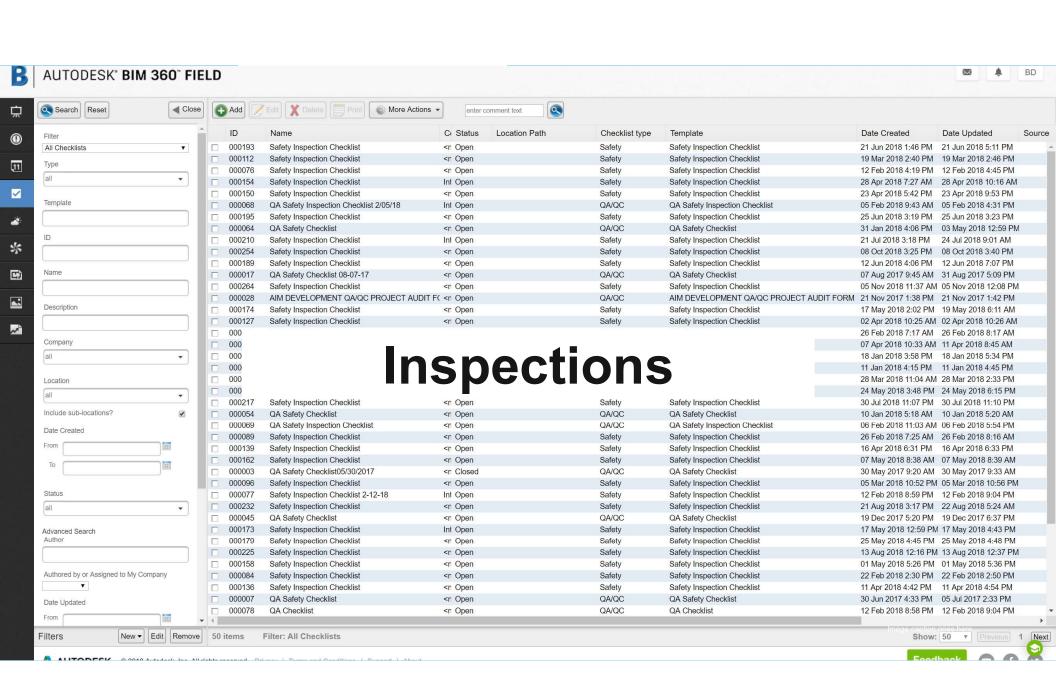
© 2018 Autodesk Inc. All rights reserved.

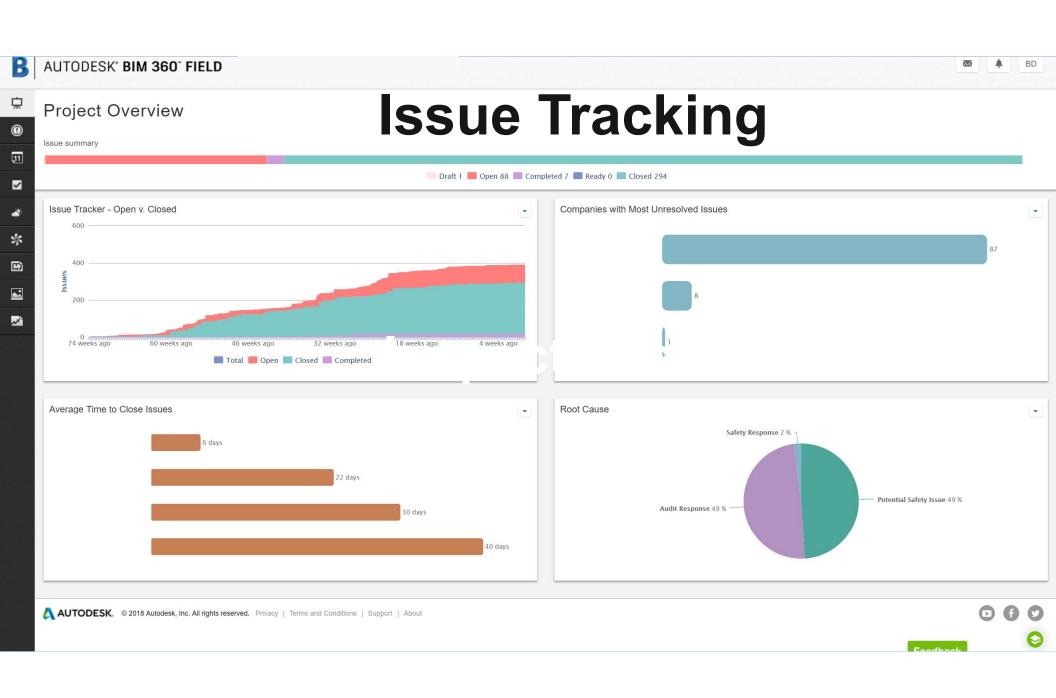
One Typical Project 5 Change Orders | 52 submittals | 515 Contractor Daily QC Reports | 312 Field Reports | QA Materials Weekly Reports | Survey Inspections | QA SI Reports | **Environmental Reports | Look Ahead** Schedules | Meeting Minutes | NCRs | Permits | 128 Drawing Sheets | 108 RFIs | Safety Reports | 126 Specifications

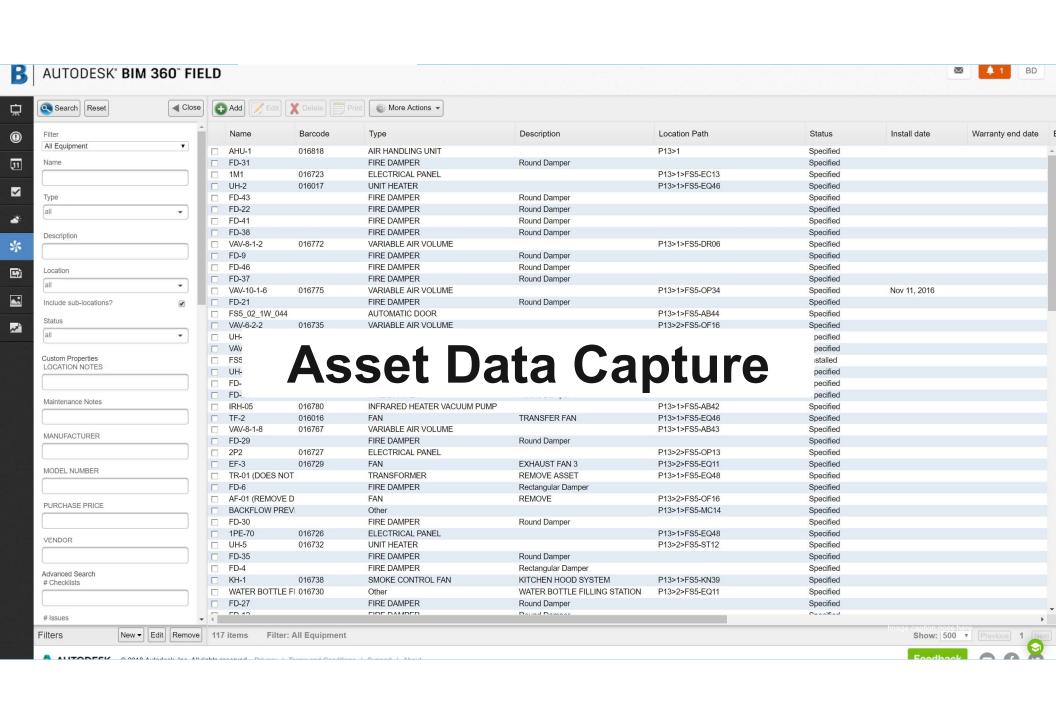














Where's the Value?

Use Case 1

Use Case 2

\$750k

SAVED

MINUTES

120

INSPECTORS

WEEKS

Printing and document distribution costs on a single major capital project

Time saved per day per inspector per Daily Report

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Payback period for all seats just based on inspector time saved



Autodesk and the Autodesk logo are registered trademarks or trademarks of Autodesk, Inc., and/or its subsidiaries and/or affiliates in the USA and/or other countries. All other brand names, product names, or trademarks belong to their respective holders. Autodesk reserves the right to alter product and services offerings, and specifications and pricing at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document.

© 2018 Autodesk. All rights reserved.