



DevCon

Introduction to Autodesk Construction Cloud API

Mikako Harada
Senior Manager, AEC

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Motivation



We want to move to ACC (from BIM360). But we cannot because the project creation API is missing

How can I activate API access for my account?

I don't see API to upload files to ACC.
Is it possible?

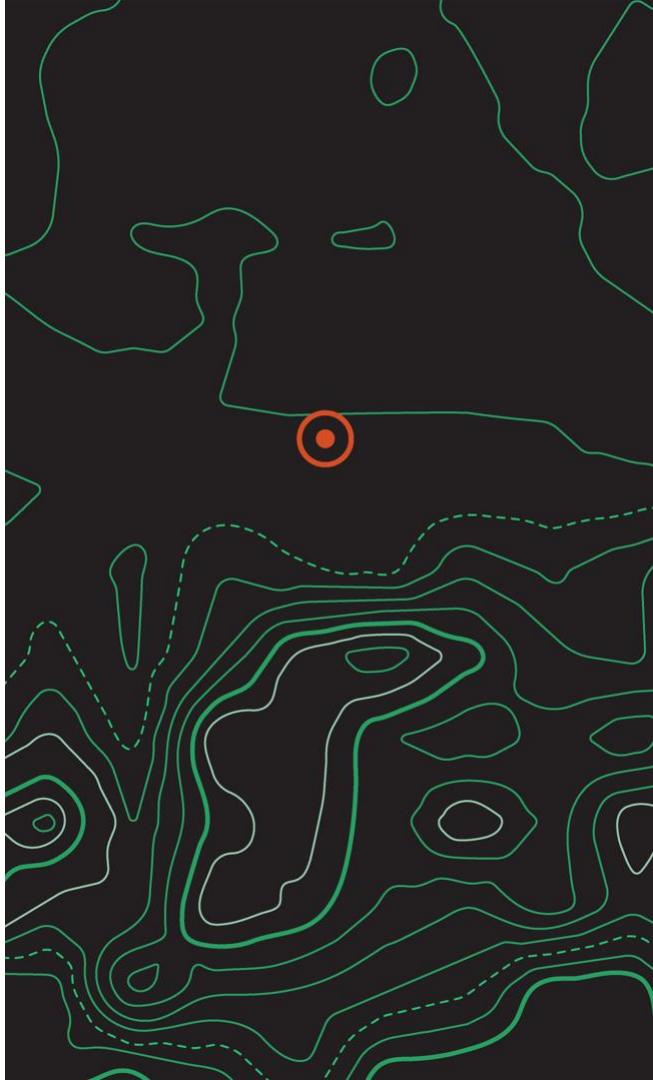
I can get Fusion hubs, but not ACC or BIM 360 accounts.
Why ?!?

What is hub?

I followed the step-by-step tutorial to upload a file. It works with Fusion, but not Docs 😞

Agenda

- 1 Autodesk Construction Cloud Family Products Overview
- 2 API - Big Picture
- 3 Accessing Project Data
- 4 Accessing Model Data: Model Properties API
- 5 Q & A



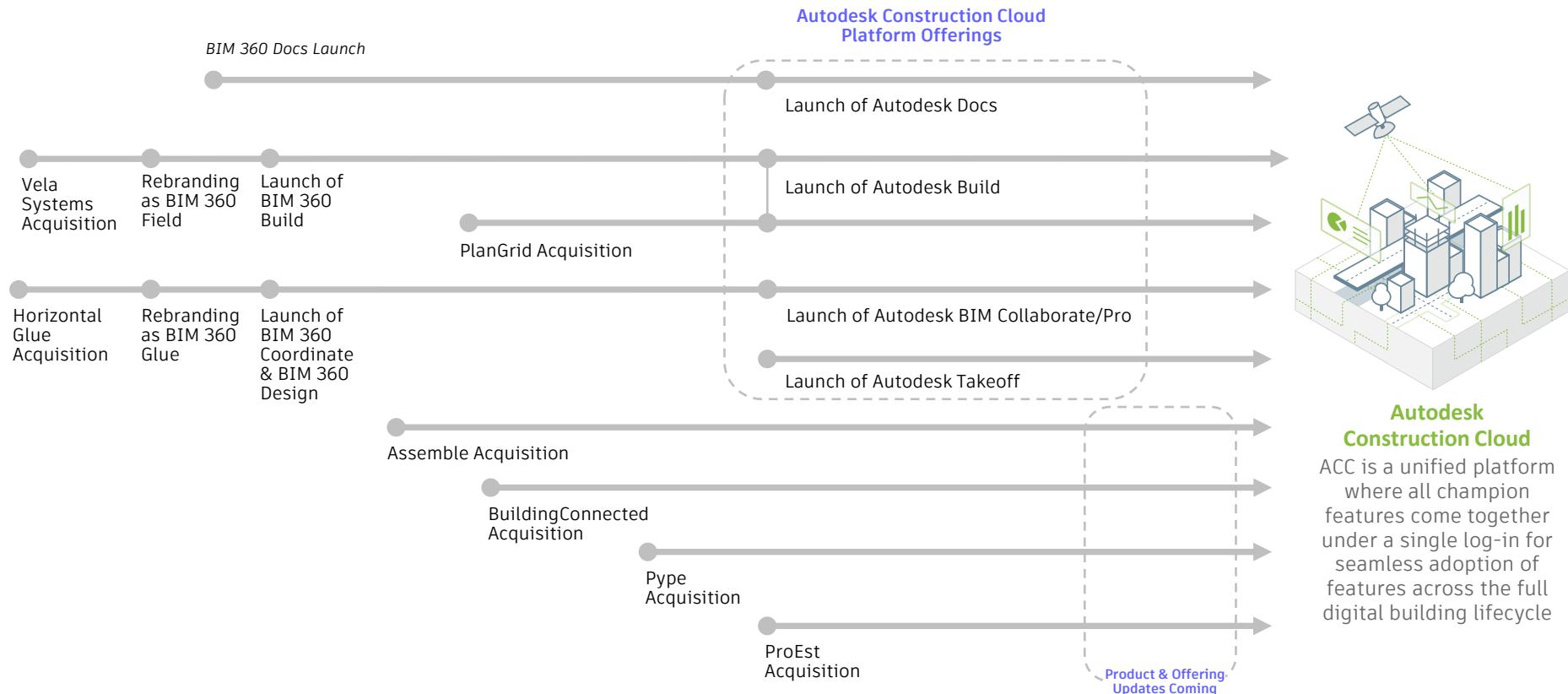


Autodesk Construction Cloud Product Overview



Construction Management @ Autodesk

High Level Product & Offering Evolution



Autodesk Construction Cloud Products

Latest product offering

AUTODESK Construction Cloud

+1 866-475-3802 | Log In | Get Demo >

Products Solutions Resources Customer Stories Pricing

Autodesk Construction Cloud Products

The work may be challenging, software shouldn't be. Autodesk Construction Cloud products help you build better in a simple, user-friendly interface.

B Build Comprehensive field and project management software that delivers a broad, deep and connected set of tools for builders. 

T Takeoff Perform accurate 2D takeoffs and generate automated quantities from 3D models in a single online solution. 

C BIM Collaborate Connect decision-makers and construction teams to manage design reviews and automate model coordination with trades. Improve design quality and constructability from the office to the field. 

D Docs Centralized document management solution that acts as a single source of truth across the project lifecycle for all project teams. 

[LEARN MORE](#) [Try Now >](#)

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ADDITIONAL PRODUCTS

AUTODESK CONSTRUCTION CLOUD MOBILE

Mobile-first, field collaboration app, now part of Autodesk Build.

[LEARN MORE](#) [Contact Us >](#)

BIM Collaborate Pro

Co-author designs, perform design reviews, and automate model coordination with trades. Collaborate in design tools anytime, from anywhere and improve design quality and constructability from the office to the field.

[LEARN MORE](#) [Try Now >](#)

ASSEMBLE

Query and connect BIM data to design reviews, takeoffs, estimating, change management, and value engineering to reduce risk and improve efficiency.

[LEARN MORE](#) [Get a Demo >](#)

BUILDING CONNECTED

The largest real-time, construction network with an easy-to-use platform that streamlines the bid and risk management process.

[LEARN MORE](#) [Get a Demo >](#)

PYPE

Create and review submittal logs, collect closeout documentation and create dynamic document turnover packages while reducing risk and increasing accuracy.

[LEARN MORE](#) [Get a Demo >](#)

PROEST

Powerful cloud-based estimating solution that ensures estimates are accurate, bids are competitive, and projects are profitable.

[LEARN MORE](#) [Get a Demo >](#)

AUTODESK Construction Cloud Connect

Create powerful custom integrations easily. Build unique workflows that

<https://construction.autodesk.com/products/>

AUTODESK Construction Cloud

Unified Products



AUTODESK
BIM Collaborate



AUTODESK
BIM Collaborate
Pro



AUTODESK
Takeoff



AUTODESK
Build



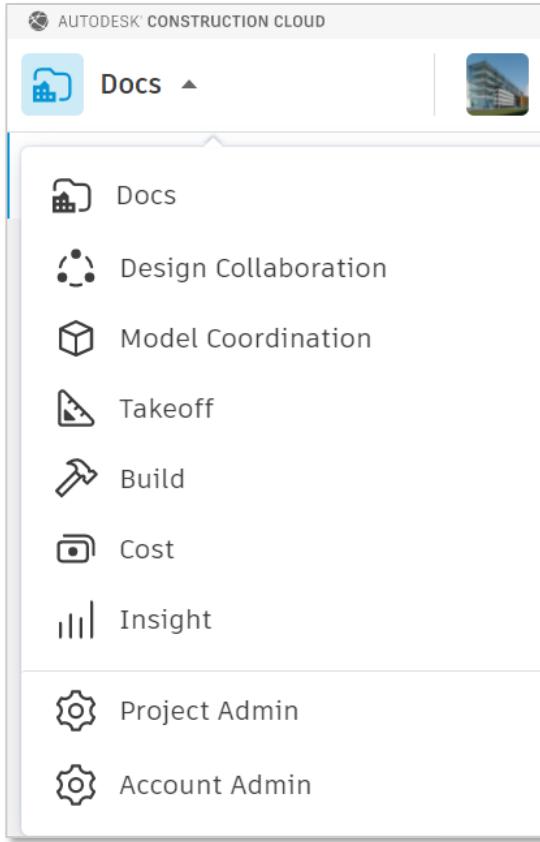
AUTODESK Docs

INSIGHTS

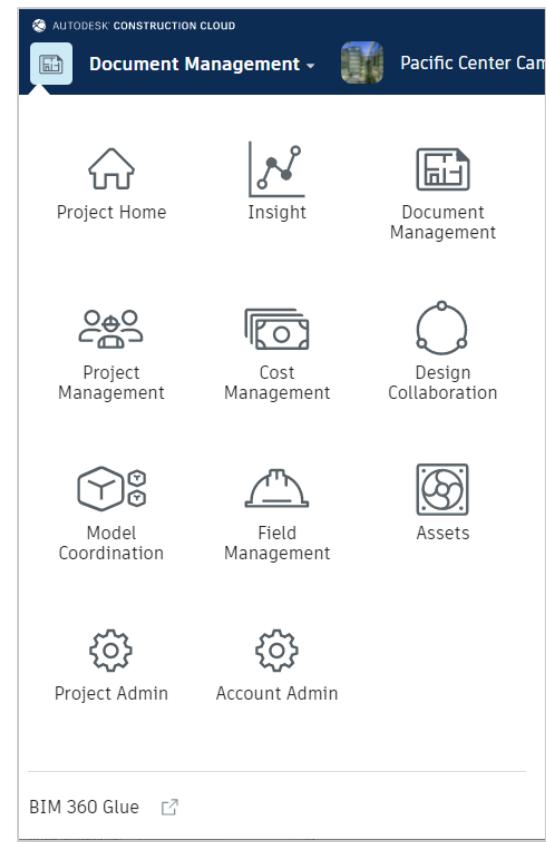
ADMINISTRATION

Products/Subscription & Modules

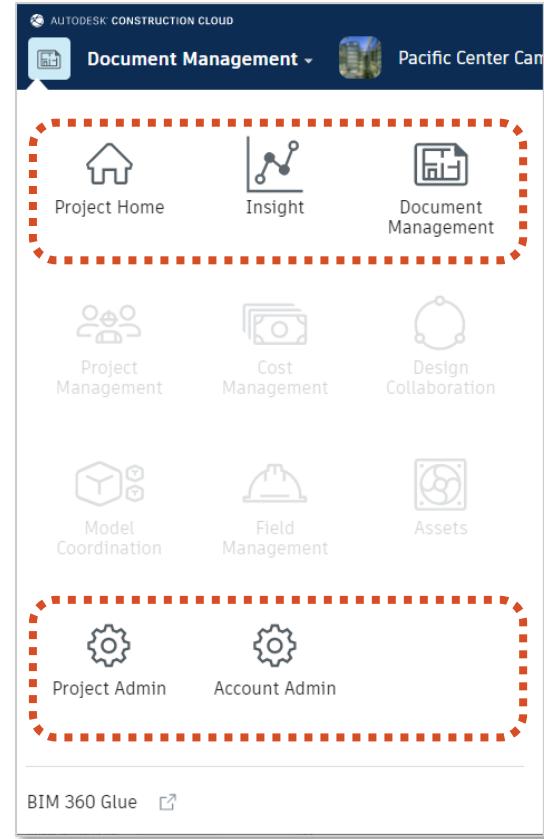
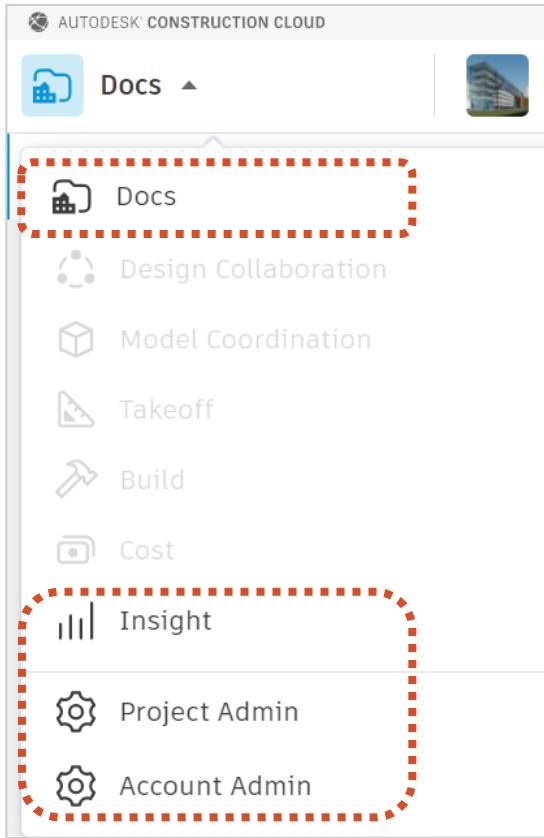
ACC



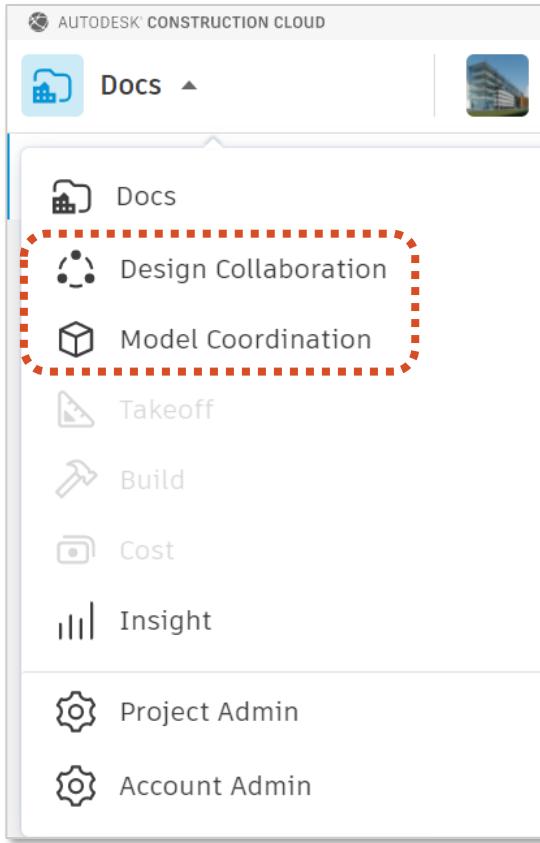
BIM 360



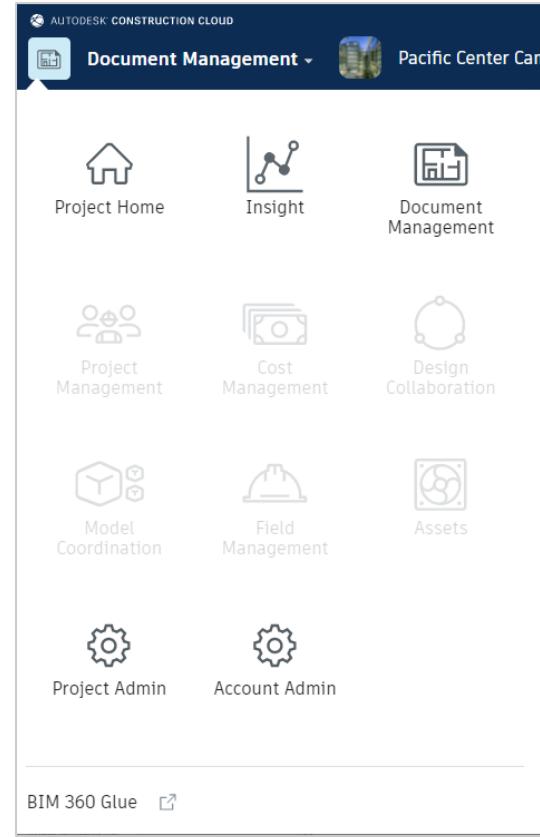
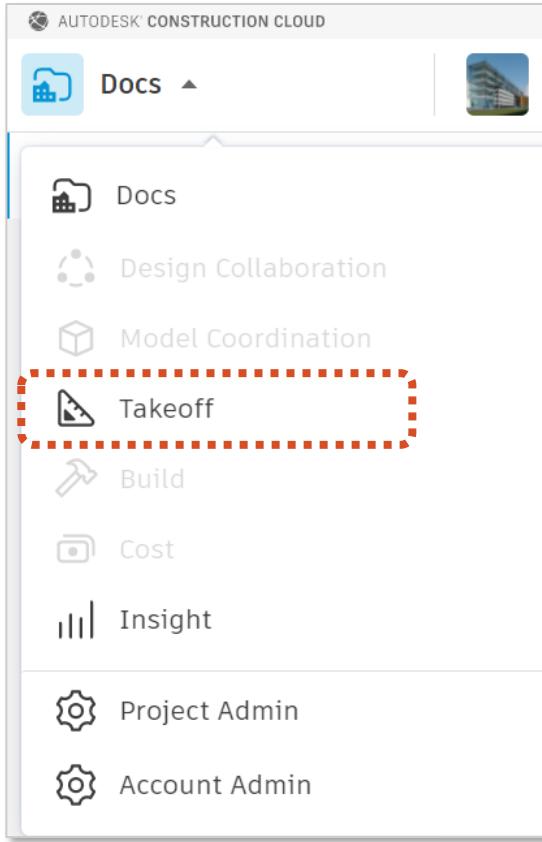
Products/Subscription & Modules



Products/Subscription & Modules



Products/Subscription & Modules



Products/Subscription & Modules

AUTODESK CONSTRUCTION CLOUD

Docs ▾

- Docs
- Design Collaboration
- Model Coordination
- Takeoff
- Build
- Cost
- Insight
- Project Admin
- Account Admin



AUTODESK CONSTRUCTION CLOUD

Document Management ▾ Pacific Center Cam

Project Home Insight Document Management

Project Management Cost Management Design Collaboration

Model Coordination Field Management Assets

Project Admin Account Admin

BIM 360 Glue

Products Access

acc.autodesk.com & acc.autodesk.eu

The screenshot shows the Autodesk Construction Cloud interface. At the top, there's a navigation bar with icons for back, forward, home, and search, followed by the URL 'acc.autodesk.com'. On the right of the bar is a user profile for 'Mikako Harada' with a green 'M' icon. Below the bar, the title 'AUTODESK Construction Cloud' is displayed next to a gear icon for 'Account Admin' and a bar chart icon for 'Executive Insight'. A red dashed box highlights the top navigation area and the user profile. The main content area has a 'Welcome, Mikako' message and a question 'What would you like to do today?'. Below this, there are tabs for 'My Home', 'Projects' (which is selected and highlighted with a blue underline), and 'Project Templates'. A 'Create project' button is located in a blue box. To the right is a search bar with the placeholder 'Search projects by name...' and a magnifying glass icon. Another red dashed box highlights the 'Type' column in the project list table. The table lists three projects:

Type	Name	Number	Quick access	Account	Created on
	MH Test		Docs ▾	Developer Advocacy Support	Jun 12, 2023
	BIM 360 APS Training			Riley Peterson	Apr 11, 2023
	MH Test ACC Proj		Project Admin ▾	Developer Advocacy Support	Feb 21, 2023

 **AUTODESK** Construction Cloud

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Products Solutions Resources Customer Stories Pricing

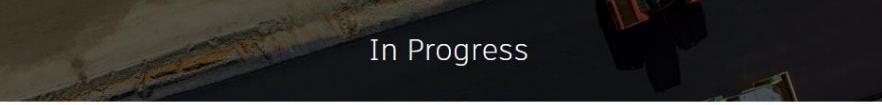
PRODUCT ROADMAP | IN PROGRESS | RECENT RELEASES

The information provided in this material, including all product roadmaps and schedules, are not promises and is subject to change. We're as excited as you to see new functionalities and improvements in our products, but their development, releases, and timing remain at our sole discretion. The information provided here should not be relied upon for purchasing, investment, or other decisions.

Autodesk Construction Cloud Product Roadmap

We are focused on delivering on our promise of a unified platform to help connect teams and project data from design to done—reducing risk, protecting profits, and increasing predictability.

New functionality is released across our Autodesk Construction Cloud products regularly. If you're a product user, you will receive in-product updates about recent releases or subscribe to our newsletter to have product updates dropped in your inbox.


In Progress

Below is a select list of features we are actively developing. This is our global roadmap, please note that not all features will be available in all regions.

Administration and Project Standardization	+
Document Management	+
Construction Management	+
BIM/VDC	+
Preconstruction	+
Data and Intelligence	+



ACC Product Roadmap

<https://construction.autodesk.com/products/product-roadmap/>

Construction Management

Our roadmap for Construction Management currently focuses on building tools that allow users to leverage models in construction, increase customization and control in cost and project management workflows including RFIs, Submittals and Correspondence and improve onsite scheduling.

Related Products:

AUTODESK Build

Coming Soon

Assets Statistics

Autodesk Build mobile users will get more insight into Assets with the ability to view the status of open assets and the number of open forms and issues associated with an asset.

Export/Import Templates into Assets

Autodesk Build users will be able to export existing Asset project settings from BIM 360 Assets and import into Project Templates in Autodesk Construction Cloud.

Change Order Required Field

Autodesk Build Cost Management users will be able to better understand the impact of change orders upfront by having specific information like schedule change and custom attributes required at submission. Project admins will define the required fields within Cost Management's settings.

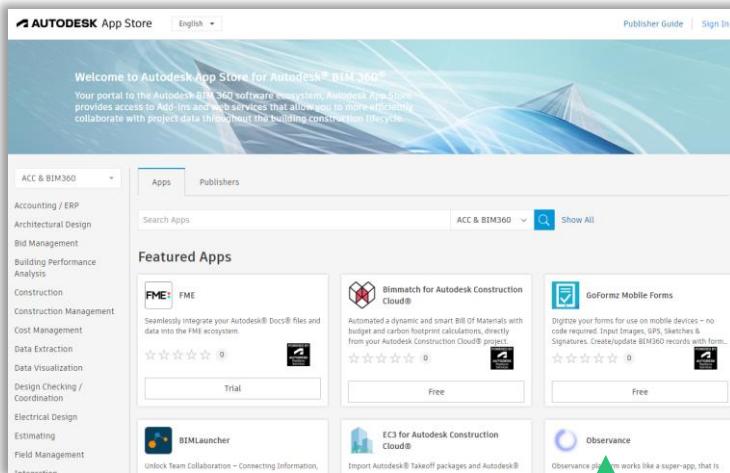
Assign Roles and Companies to Submittals

Autodesk Build users will be able to assign specific Roles to

ACC/BIM 360 App Store

- apps.autodesk.com

- Visible to all users
- Custom Integration Tab to provision App



same publishing process :
<https://www.autodesk.com/developapp>

- In-product store

- Visible to Account Admin
- Simplified provisioning

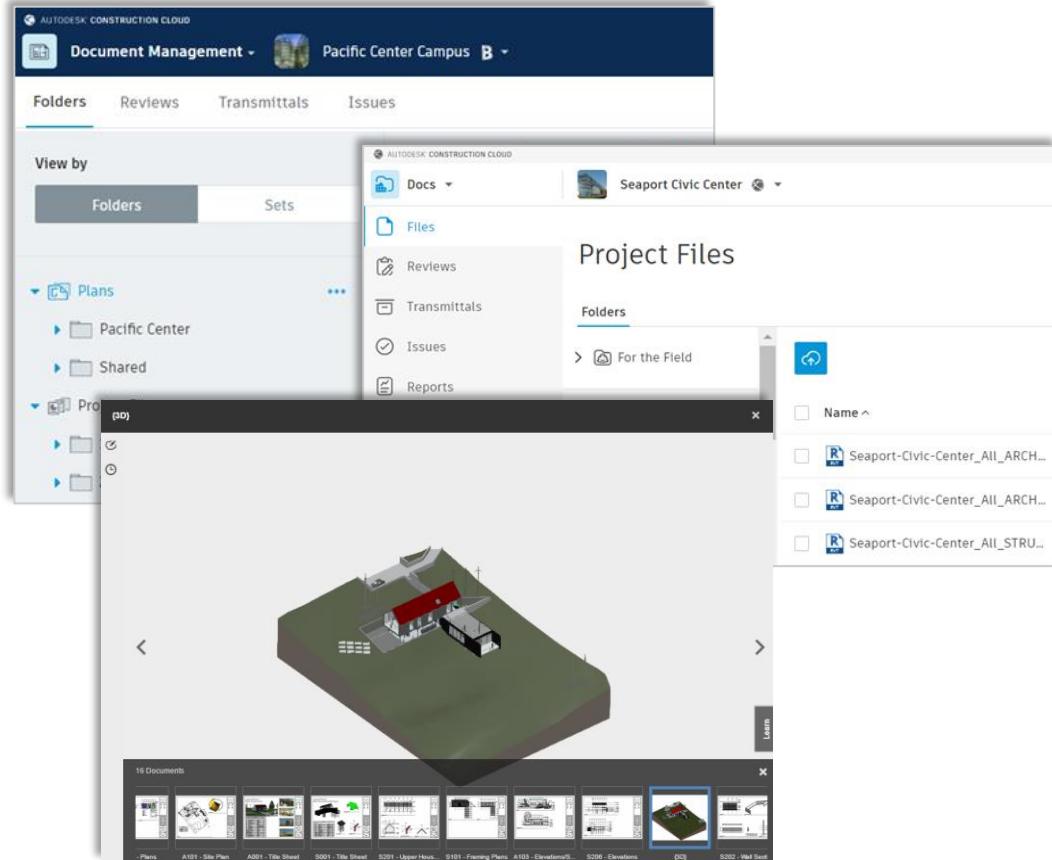


API - Big Picture



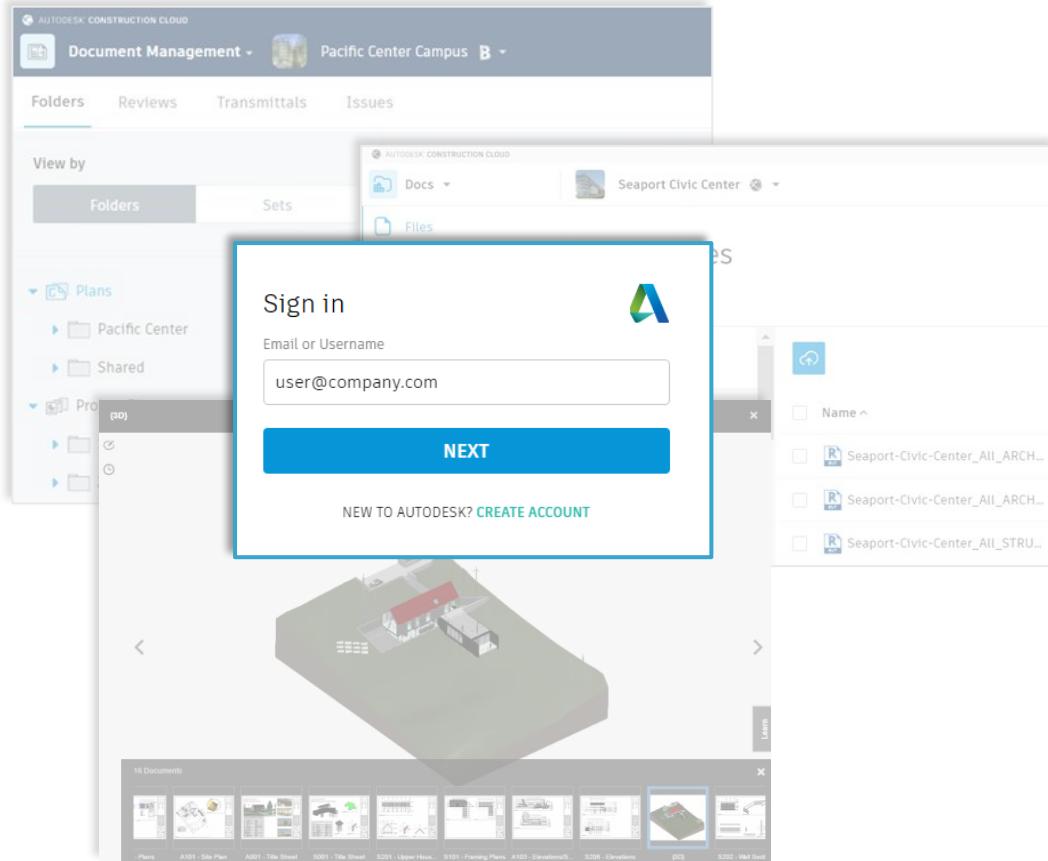
Autodesk/BIM 360 Docs – API Overview

- Authentication (OAuth)
- Data Management API
- Model Derivative API
- Viewer
- Admin API
- Issues API



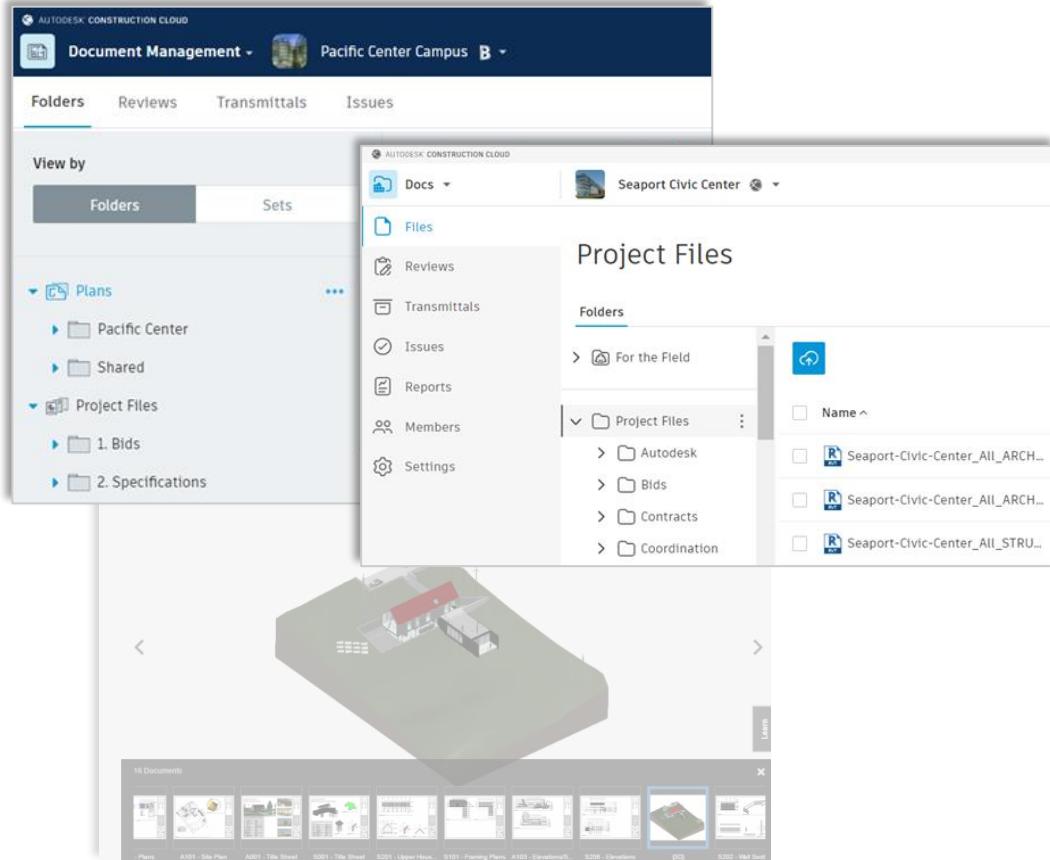
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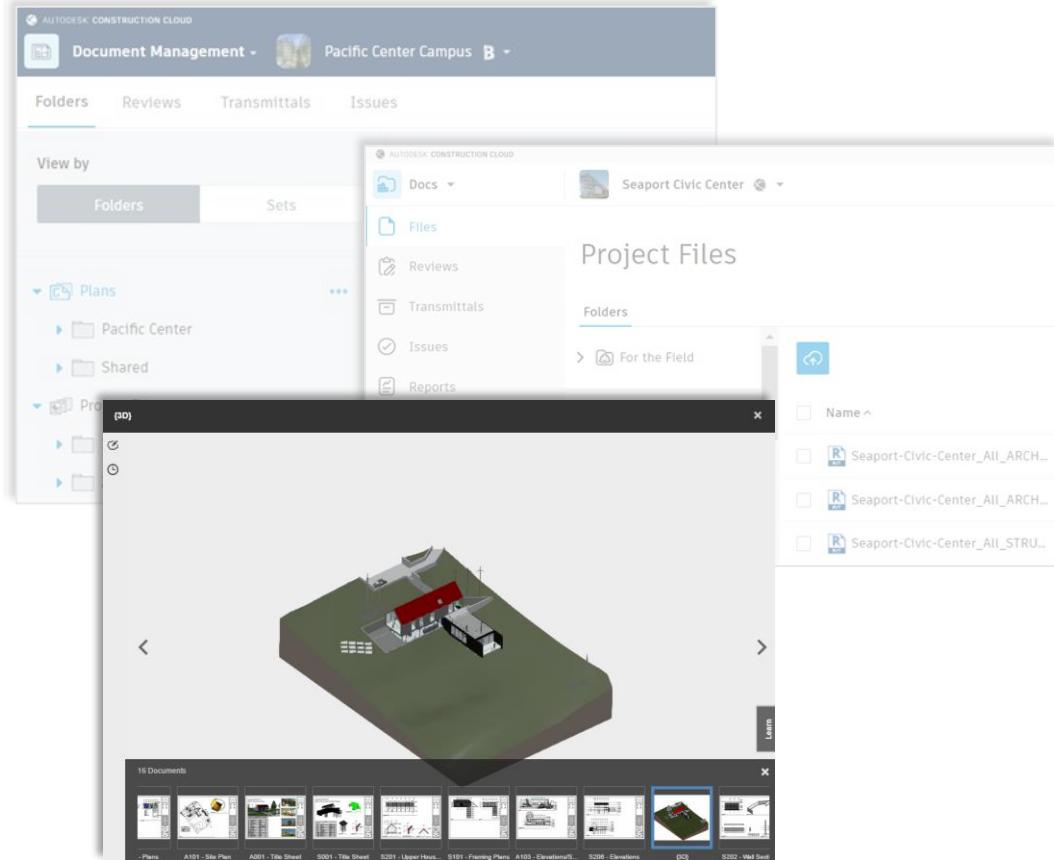
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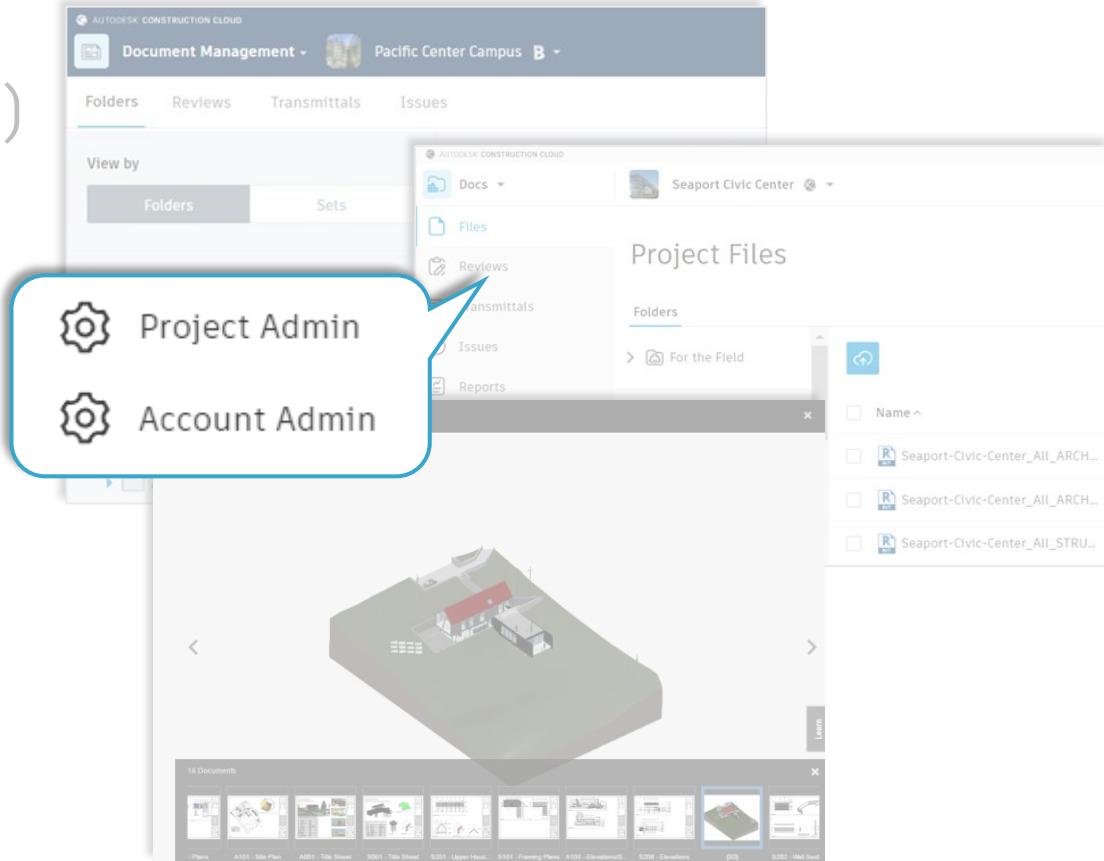
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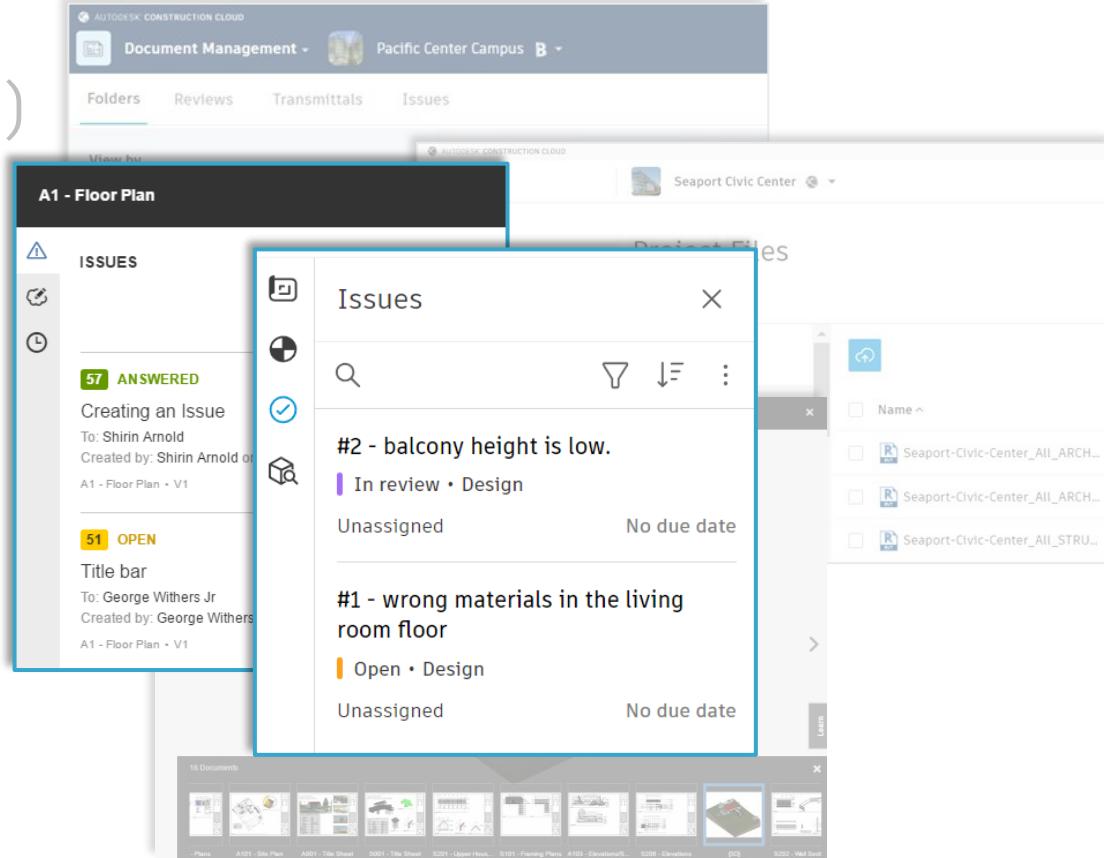
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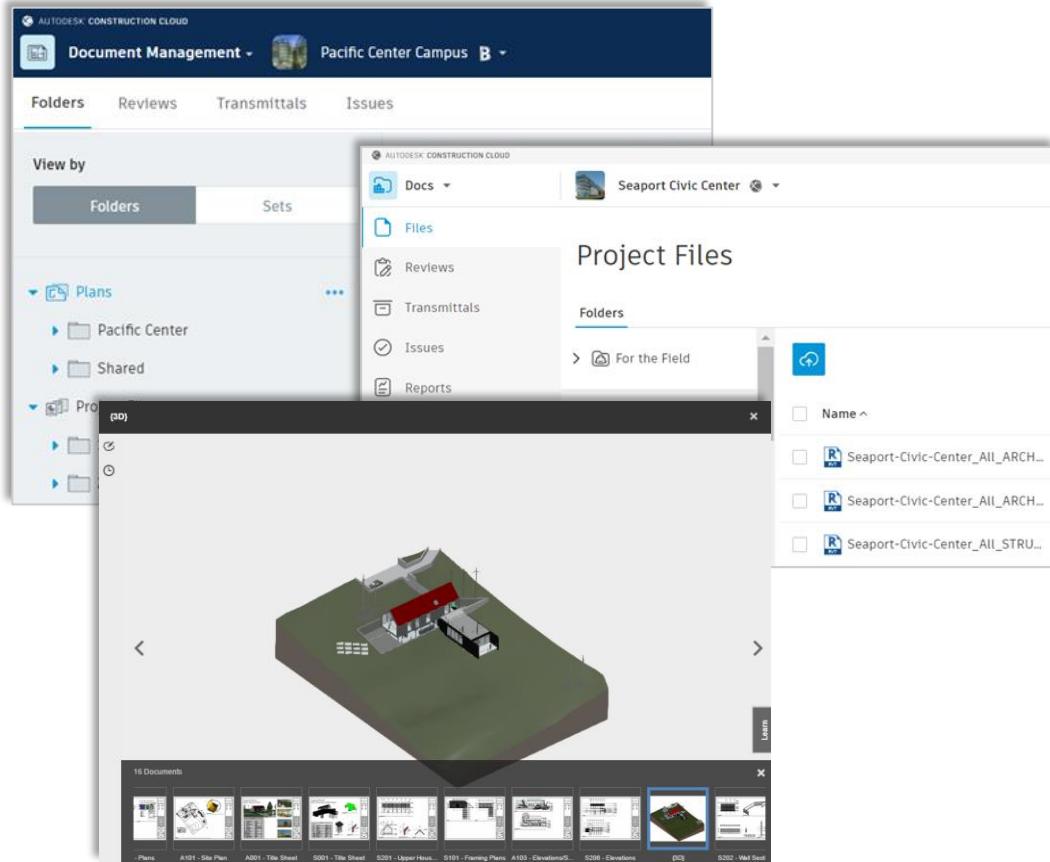
Autodesk/BIM 360 Docs – API Overview

- Authentication (OAuth)
- Data Management API
- Model Derivative API
- Viewer

Platform API

- Admin API
- Issues API

ACC/BIM 360 API



AUTODESK Construction Cloud

Unified Products and API



AUTODESK
BIM Collaborate



AUTODESK
BIM Collaborate
Pro



AUTODESK
Takeoff



AUTODESK
Build



AUTODESK Docs

Docs Specific

Platform API

INSIGHTS

Shared Services within ACC/BIM 360

ADMINISTRATION



Autodesk Platform Services (APS)

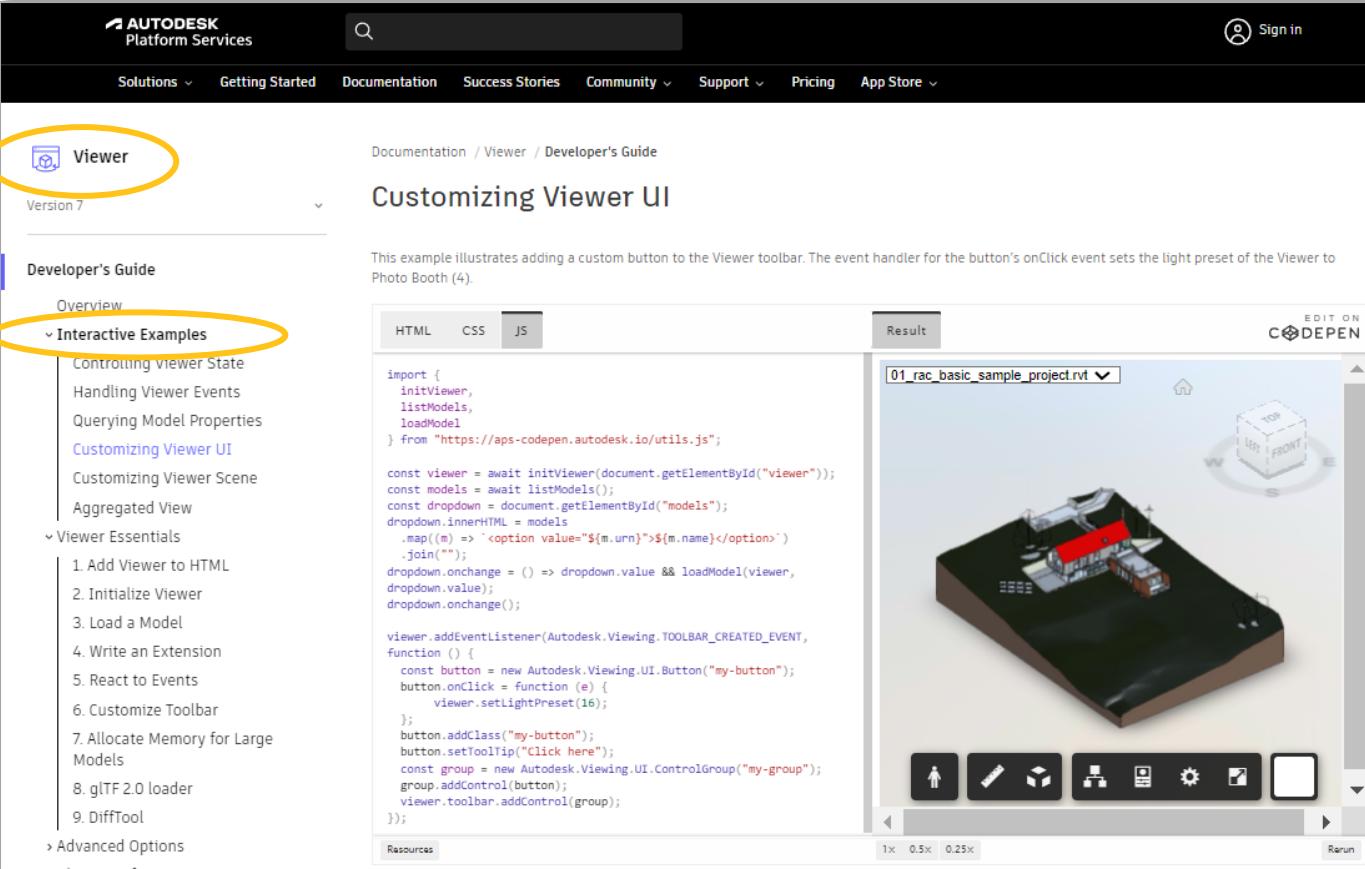


APS (Autodesk Platform Services) API

- APS basics
 - Authentication (OAuth)
 - Data Management (DM) API
 - Model Derivatives API
 - Viewer
- Learning
 - aps.autodesk.com >> Getting Started
 - Setup
 - Tutorials
 - Link to Github

The screenshot shows the Autodesk Platform Services website's 'Getting Started' page. At the top, there's a navigation bar with the Autodesk logo, a search bar, and links for 'Solutions', 'Getting Started' (which is highlighted with a yellow circle), 'Documentation', 'Success Stories', 'Community', and 'Support'. Below the navigation, a breadcrumb trail shows 'Home > Getting Started'. The main content area has a large heading 'Getting Started' and a sub-section 'Create an account'. A tip box at the bottom right says 'You can take advantage of a trial subscription that...'. On the left, a sidebar lists several options: 'Getting Started' (highlighted with a yellow circle), 'Environment Setup', 'Tutorials' (highlighted with a yellow circle), 'Simple Viewer', 'Hubs Browser', 'Dashboard', 'Design Automation', and 'Learn More'.

APS (Autodesk Platform Services) API



The screenshot shows the Autodesk Platform Services Documentation website. The main navigation bar includes links for Solutions, Getting Started, Documentation, Success Stories, Community, Support, Pricing, and App Store. A search bar is located at the top right. On the left, there's a sidebar with a 'Viewer' icon (circled in yellow) and the text 'Version 7'. Below it is the 'Developer's Guide' section, which has 'Interactive Examples' (also circled in yellow) expanded, showing a list of topics like Controlling viewer State, Handling Viewer Events, Querying Model Properties, Customizing Viewer UI, Customizing Viewer Scene, Aggregated View, and more. The main content area shows the 'Customizing Viewer UI' page, which includes a code editor with tabs for HTML, CSS, and JS, and a preview window showing a 3D model of a building with a toolbar at the bottom.

Documentation / Viewer / Developer's Guide

Customizing Viewer UI

This example illustrates adding a custom button to the Viewer toolbar. The event handler for the button's onClick event sets the light preset of the Viewer to Photo Booth (4).

HTML CSS JS

```
import {  
    initViewer,  
    listModels,  
    loadModel  
} from "https://aps-codepen.autodesk.io/utils.js";  
  
const viewer = await initViewer(document.getElementById("viewer"));  
const models = await listModels();  
const dropdown = document.getElementById("models");  
dropdown.innerHTML = models  
.map(m => <option value="${m.urn}">${m.name}</option>)  
.join("");  
dropdown.onchange = () => dropdown.value && loadModel(viewer,  
dropdown.value);  
dropdown.onchange();  
  
viewer.addEventListener(Autodesk.Viewing.TOOLBAR_CREATED_EVENT,  
function () {  
    const button = new Autodesk.Viewing.UI.Button("my-button");  
    button.onClick = function (e) {  
        viewer.setLightPreset(16);  
    };  
    button.addClass("my-button");  
    button.setToolTip("Click here");  
    const group = new Autodesk.Viewing.UI.ControlGroup("my-group");  
    group.addControl(button);  
    viewer.toolbar.addControl(group);  
});
```

01_rac_basic_sample_project.rvt

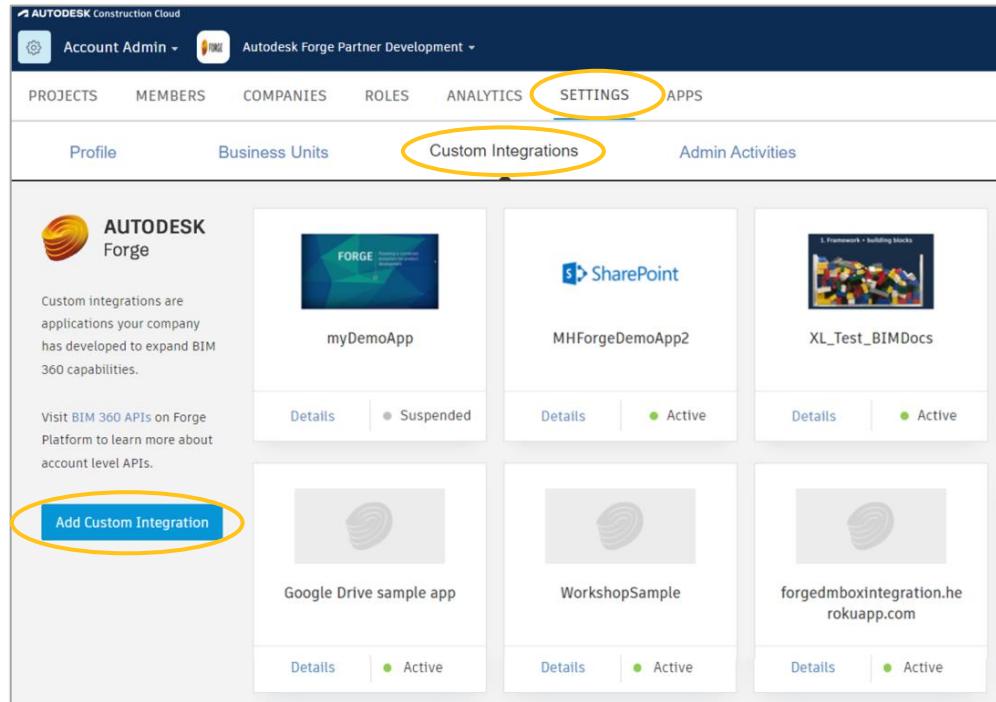
EDIT ON CODEPEN



Activating API Access – before you code ...

- Account Admin needs to activate API access in:
Settings >> Custom Integration
- “Provisioning”

BIM 360 UI →



The screenshot shows the Autodesk Construction Cloud interface. At the top, there's a header with the Autodesk logo, 'Account Admin', and 'Autodesk Forge Partner Development'. Below the header, a navigation bar has tabs for 'PROJECTS', 'MEMBERS', 'COMPANIES', 'ROLES', 'ANALYTICS', 'SETTINGS' (which is underlined and highlighted with a yellow circle), and 'APPS'. Under 'SETTINGS', there are sub-tabs for 'Profile', 'Business Units', 'Custom Integrations' (which is highlighted with a yellow circle), and 'Admin Activities'. The main content area is titled 'AUTODESK Forge' and contains a section about custom integrations. It says: 'Custom integrations are applications your company has developed to expand BIM 360 capabilities.' Below this, it says: 'Visit BIM 360 APIs on Forge Platform to learn more about account level APIs.' At the bottom of this section is a blue button with white text that says 'Add Custom Integration', which is also highlighted with a yellow circle. To the right of this section, there are several cards representing different custom integrations:

Integration Name	Status
myDemoApp	Suspended
MHForgeDemoApp2	Active
XL_Test_BIMDocs	Active
Google Drive sample app	Active
WorkshopSample	Active
forgedmboxintegration.he rokuapp.com	Active

Activating API Access

- ACC - Same as BIM 360
- Account Admin
>> BIM 360 Admin >> Settings
- **⚠ Activate all at account level!**
- Wish: BIMAPI-96: granular controls giving access to 3rd party apps

The image displays four screenshots arranged vertically, showing the steps to activate API access:

- Autodesk Construction Cloud (Top):** Shows the "Project List" interface. A red circle highlights the "Account administration" link in the top right corner. A green arrow points down to the next screenshot.
- BIM 360 Admin (Second from Top):** Shows the "BIM 360 admin" interface. A red circle highlights the "Account Administration" link in the top left sidebar. Another red circle highlights the "BIM 360 admin" link in the main navigation bar. A green arrow points down to the third screenshot.
- BIM 360 Admin (Third from Top):** Shows the "BIM 360 admin" interface with the "Settings" tab selected. A red circle highlights the "Settings" link in the "BIM 360 admin" section of the main content area. A green arrow points down to the fourth screenshot.
- Autodesk Construction Cloud (Bottom):** Shows the "Custom Integrations" section of the "SETTINGS" tab in the "Account Admin" interface. A red circle highlights the "Custom Integrations" link in the top navigation bar. A green arrow points down to the bottom of the slide.

Autodesk Construction Cloud (Top Screenshot Details):

- Header: Autodesk CONSTRUCTION CLOUD, Mikako Harada
- Left Sidebar: Docs, Design Collaboration, Model Coordination, Build, Cost, Insight, Project Admin, Account Admin (highlighted by a red circle).
- Right Content: Project List, + Create project, Search projects by name..., Sample Project MH, Created On: January 21, 2021.

BIM 360 Admin (Second Screenshot Details):

- Header: Autodesk CONSTRUCTION CLOUD, mikako.harada@autodesk.com account, Mikako Harada
- Left Sidebar: Projects, Members, Templates, Settings, BIM 360 admin (highlighted by a red circle).
- Content: Analytics, Apps, Companies, Roles, Settings (highlighted by a red circle).

Autodesk Construction Cloud (Third Screenshot Details):

- Header: Autodesk CONSTRUCTION CLOUD, Account Admin, Sample Account, Mikako Harada
- Top Navigation: PROJECTS, MEMBERS, COMPANIES, ROLES, ANALYTICS, SETTINGS (highlighted by a red circle), APPS, Go to unified projects.
- Content: Profile, Business Units, Custom Integrations (highlighted by a red circle), Admin Activities.
- Custom Integrations Section:
 - Header: AUTODESK Forge
 - Description: Custom integrations are applications your company has developed to expand BIM 360 capabilities.
 - Text: Visit BIM 360 APIs on Forge Platform to learn more about account level APIs.
 - Items: AutoSpecs Test (Pype), AutoSpecs Dev (Pype), AutoSpecs Test.
 - Details: Active status for all items.

Activating API Access

- Account Admin and Docs
- In-house development or invite 3rd party developer

The screenshot shows the Autodesk Construction Cloud interface with the 'Autodesk Forge Partner Development' tab selected. The main navigation bar includes PROJECTS, MEMBERS, COMPANIES, ROLES, ANALYTICS, SETTINGS (which is selected), and APPS. Below the navigation bar are four tabs: Profile, Business Units, Custom Integrations (which is selected), and Admin Activities.

The left sidebar for 'AUTODESK Forge' contains the following text:

Custom integrations are applications your company has developed to expand BIM 360 capabilities.

Visit [BIM 360 APIs on Forge Platform](#) to learn more about account level APIs.

A blue 'Add Custom Integration' button is located at the bottom of this sidebar.

The central area displays the 'Add Custom Integration' dialog. The title bar says 'Add Custom Integration'. The main content area is titled 'Select Access' and contains two sections:

- BIM 360 Account Administration**
Read and write access to Account Administration functionalities including project creation, service activation, business partner directory, and member directory.
- Document Management**
Read and write access to Document Management, including access to folders, documents, models, and issues.

A blue 'Next' button is located at the bottom right of the dialog.

Activating API Access

AUTODESK Construction Cloud

Account Admin

PROJECTS M

Profile

AUTO Forge

Custom integration applications you developed to expand capabilities.

Visit BIM 360 API Platform to learn about account level APIs

Add Custom Integration

BIM 360 info you need

When accessing BIM 360 APIs from your app, you need to specify the BIM 360 Account ID. Before proceeding, please make sure to save the BIM360 Account ID info for your records.

BIM 360 Account ID

70826065-e117-4d4d-bbd2-00c7ac73d0a2

I have saved the Account ID info

Fill in App Information

* Forge Client ID

o57oA9BMeJlmmgbqxQLo6TvVARurZc9U6

App Logo

* App Name

ApsIntroApp

App Description

aps introduction app

Select image to upload

JPEG, GIF, PNG, or BMP
(file(400*200px, 4MB max))

AUTODESK Platform Services

Back to Applications

ApsIntroApp

Created on May 29, 2017

Client Credentials

The Client ID and Client Secret are used to obtain access tokens, which you must use to authenticate API calls.

Client ID: o57oA9BMeJlmmgbqxQLo6TvVARurZc9U6

Client Secret:

Regenerate

<https://aps.autodesk.com/myapps/>

API Products to Choose

- When you create a Client ID for your Application
- <https://aps.autodesk.com> >> Signin >> Applications

Product(s) to Support	Proxy to Use
BIM 360	BIM 360 API
BIM 360/ACC Use compatible API's only	BIM 360 API
BIM 360/ACC. Use full range of API's	BIM 360 API & ACC API
ACC Use ACC Specific API or backward compatible ACC API^{*1}	ACC API

API Access

These are the APIs your app is allowed to access. It can be changed anytime.

2 APIs selected

- Autodesk Construction Cloud API
- BIM 360 API
- BuildingConnected API
- Data Exchange API
- Data Management API
- Design Automation API
- Fusion Data API
- Model Derivative API
- Parameters API
- Premium Reporting API
- Reality Capture API
- Token Flex Usage Data API
- Webhooks API

<https://aps.autodesk.com/myapps/>

*1) new Project Admin read API

Authentication Methods

- OAuth2
 - 2-legged
 - Application context
 - 2-legged w/ user impersonation (x-user-id)
 - User context
 - 3-legged
 - User context
 - Re-direct to authorization server

The image shows a screenshot of the Autodesk sign-in page. It features a logo at the top right, a text input field labeled "Email or Username" containing "user@company.com", a large blue "NEXT" button below it, and a link "NEW TO AUTODESK? CREATE ACCOUNT" at the bottom.

	BIM 360 Team/ Fusion Team	Autodesk/BIM 360 Docs	ACC/BIM 360 Admin	ACC unified Prod/BIM 360 “vertical” modules
2-legged	X	0	0	X
3-legged	0	0	Δ ^{*1}	0

*1) currently mixed; endpoints with /admin/, /hq/v2/ supports 3LO

- 2-legged authentication gives you power user privilege. Use 3-legged where possible.
- https://aps.autodesk.com/en/docs/oauth/v2/developers_guide/overview/

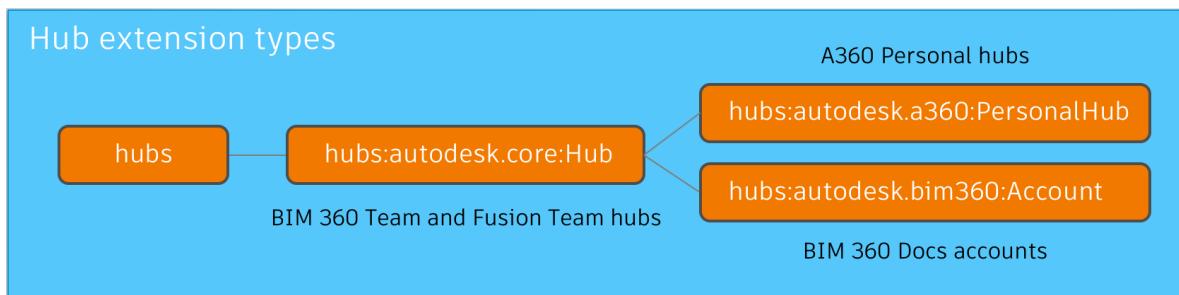


Tips: Data Management API with Docs

- Basic workflow is same across the products
- A few differences:
 - Docs support 2-legged and 3-legged.
 - “Hubs” is equivalent of “Accounts” in Autodesk/BIM 360 Docs.
 - Docs requires an additional step for activating API access in Account Admin Page.
 - Id's in Team start with **a**.xxx, Docs with **b**.xxx
 - Look for the use of extension types, such as ***:autodesk.bim360:*** instead of ***:autodesk.core:***



- Details: https://aps.autodesk.com/en/docs/data/v2/developers_guide/basics/





ACC/BIM 360 API



ACC/BIM 360 API Component Services & Structure

BIM Collaborate/Pro

- Model Coordination



Takeoff

- Takeoff^{*1}



Build

- Assets
- Cost
- RFI
- Checklists^{*2}
- Forms^{*1}
- Photos^{*1}
- Sheets^{*1}
- AutoSpecs^{*1}



Docs

- Custom attributes
- Permissions
- pdf export^{*3}

- Naming standard

Shared Services

- Data Connector
- Model Properties
- Relationships

- Admin^{*3}
- Issues^{*3}
- Locations^{*3}

Autodesk Platform API

*1) ACC only, *2) BIM 360 only, *3) Not compatible or partially compatible

ACC/BIM 360 API Component Services & Structure

BIM Collaborate/Pro

- Model Coordination



Takeoff

- Takeoff^{*1}



Build

- Assets
- Cost
- RFI
- Checklists^{*2}
- Forms^{*1}
- Photos^{*1}
- Sheets^{*1}
- AutoSpecs^{*1}



Docs

- Custom attributes
- Permissions
- pdf export^{*3}

- Naming standard

Shared Services

- Data Connector
- Model Properties
- Relationships

- Admin^{*3}
- Issues^{*3}
- Locations^{*3}

Autodesk Platform API

*1) ACC only, *2) BIM 360 only, *3) Not compatible or partially compatible



ACC/BIM 360 API - Shared Services



Docs/Document Management



- Data Management API + Docs specific API
(Viewer + Model Derivative)

- Feature differences

- no “Plans” folder in ACC
 - Single page pdf (pdf export)
 - “For the Field” in ACC



- **Permissions**



- **Custom attribute** behavior change
projects after March 23, 2021~ (API TBD)

- GET projects >> data[n].attributes.extension.data.
projectType = “ACC” | “BIM360”

- Naming convention read API – Oct. 2021

- Export PDF w/ markups and hyperlinks in ACC – Nov., 2022

The screenshot displays the Autodesk Construction Cloud Document Management interface. At the top, there's a navigation bar with the Autodesk logo, 'AUTODESK CONSTRUCTION CLOUD', 'Document Management', 'Pacific Center Campus', and a dropdown menu. Below the navigation is a header with tabs: 'Folders', 'Reviews', 'Transmittals', and 'Issues'. A 'View by' dropdown is set to 'Folders'. On the left, there's a sidebar with 'Folders' selected, showing a tree structure: 'Plans' (with 'Pacific Center' and 'Shared' branches) and 'Project Files' (with '1. Bids' and '2. Specifications' branches). The main content area shows a list of files and folders. In the bottom right, there's a 'Project Files' section for the 'Seaport Civic Center' project, listing '1. Bids' and '2. Specifications'.

Admin



API



- Partially compatible
 - e.g., No ACC project creation
- No method to distinguish hub type
- **High priority area**
 - Project creation w/ template in ACC
 - Add project users in ACC
- **Recently added**
 - Projects, and project users read (compatible)

The screenshot shows the Autodesk Construction Cloud (ACC) interface. At the top, there's a navigation bar with 'Account Admin' and 'Autodesk Forge Partner Development'. Below it is a menu bar with 'PROJECTS', 'MEMBERS', 'COMPANIES', 'ROLES', 'ANALYTICS', 'SETTINGS', and 'APPS'. The 'PROJECTS' tab is selected, leading to the 'Project Directory' page. This page displays 185 current projects, with a search bar at the top right. A modal window is open on the left, titled 'Create project', listing options like 'Projects', 'Members', 'Templates', 'Library', 'Settings', 'Apps', and 'BIM 360 admin'. On the right, there's a 'Projects' section with tabs for 'Active' and 'Archived', and a table showing project details such as Name, Number, and Type.

Name	Number	Type
000Woods	000	●
001_CDE_ITALY	001_2021	●
003_CDE_ITALY	1003	●
00-ADSK Docs	567483	●

Issues



- Used in Docs, Build, Design Collaboration, Model Coordination, Revit, Navisworks

- API

- !** NOT compatible
- ACC Issues (Sept, 2022)**
- B360 Issues v2 migration (due Aug.15)
- Gap - High priority area,
 - Add Pushpin
- References
 - use Relationships API for ACC
 - use Issues specific API for BIM 360

The image displays two screenshots of the Autodesk Construction Cloud platform. The top screenshot shows the 'Field Management' interface under 'Issues', listing several items such as 'Door hardware installation defect' (ID: 1505) and 'wrong door' (ID: 1509). The bottom screenshot shows the 'Build' interface under 'Issues', listing items like 'Drawing Discrepancy: Floor Finish' (ID: #230), 'Installation' (ID: #228), and 'Safety' (ID: #227). A detailed view of item #1505 is shown on the right, providing information such as Type (Installation Defect), Owner (Nelli Gyongyosi), and Root Cause (Inadequate Training).

Insight/Data Connector



- Data Connector API

- API itself is **compatible**
- Data may vary
- Schemas in json
- **Project level support (July 2022)**
- **Tip: Executive Overview permission for account level.**

schemas
 admin_account_services.csv
 admin_accounts.csv
 admin_business_units.csv
 admin_companies.csv
 admin_project_companies.csv
 admin_project_roles.csv
 admin_project_services.csv
 admin_project_user_companies.csv
 admin project user roles.csv

assets_asset_custom_attribute_values.csv
 assets_asset_permissions.csv
 assets_asset_statuses.csv
 assets_assets.csv
 assets_categories.csv
 assets_category_custom_attribute_assignment
 assets_category_status_set_assignments.csv
 assets_custom_attribute_default_values.csv
 assets_custom_attribute_selection_values.csv
 assets custom attributes.csv

The screenshot displays the Autodesk Construction Cloud Insight interface across four main sections:

- Top Left:** Shows a "My Dashboard" section with a map of Boston, Massachusetts, and weather information (72°). It also includes a "Project Issues" card with 23 drydock Avenue, Boston, MA 02210.
- Top Right:** Shows an "Executive Overview" section with cards for Risk, Cost, Design, and Quality.
- Middle Left:** Shows a "Project Controls" section with cards for Open RFIs and Submittals, and a "RFI Program" card.
- Middle Right:** Shows a "Data Connector" section with buttons for "Run extraction" and "Schedule".

At the bottom, there is a "Created" section with a timestamp of "Created 1 min ago".

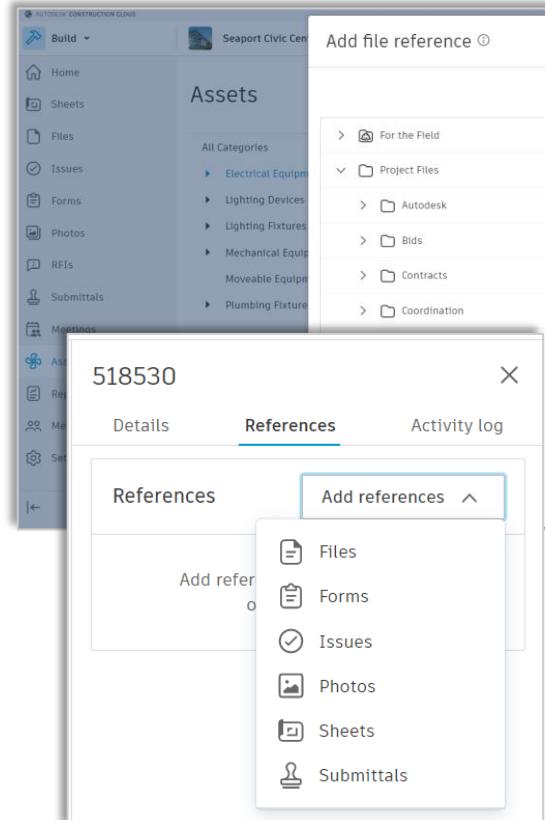
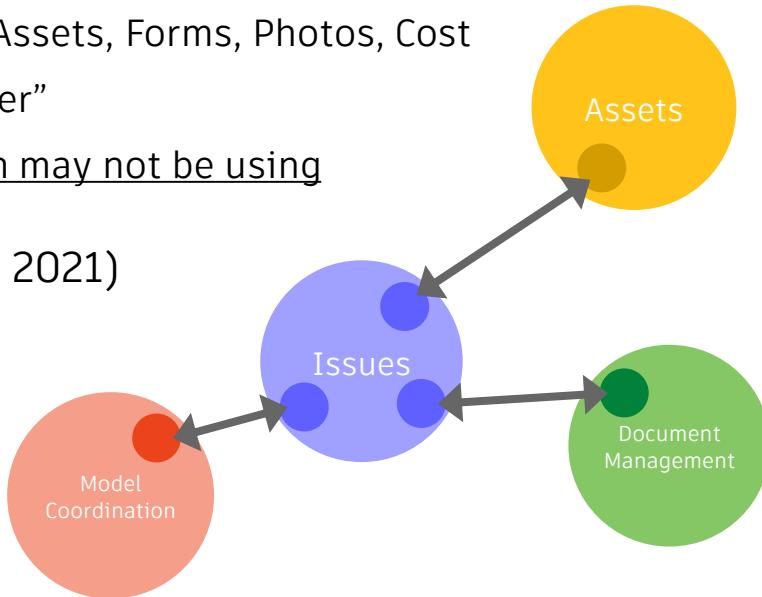
Locations

- Hierarchy of physical locations in a project
 - Set in Project Admin
 - Referenced from Issues, Assets, and other Build features (e.g, RFI, Forms).
 - Read API for ACC & B360 (July, 2021)
 - Write API for ACC only (Aug. 2022)

	Name	Linked Documents	Area
<input type="checkbox"/>	Project		
<input type="checkbox"/>	Basement	1	
<input type="checkbox"/>	Room 1	1	
<input type="checkbox"/>	Room 2	1	
<input type="checkbox"/>	apartment 1	1	
<input type="checkbox"/>	bathroom	2	
<input type="checkbox"/>	Room 3	2	
<input type="checkbox"/>	Level 1	1	
<input type="checkbox"/>	Level 2	4	
<input type="checkbox"/>	Office 237	5	
<input type="checkbox"/>	Office 306	4	
<input type="checkbox"/>	Office 271	4	

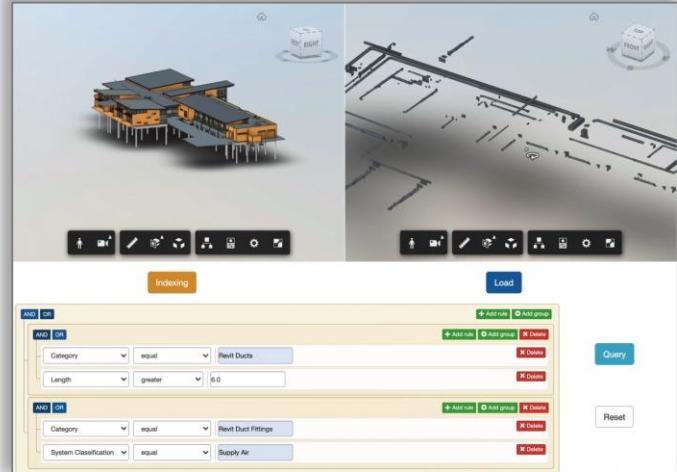
Relationships API

- Represent links between items (Entity) that reside in different functional components (Domain)
- Used in BIM 360 and ACC by various modules: e.g.,
 - Model Coordination, Assets, Forms, Photos, Cost
 - a.k.a. “Reference Picker”
 - Older implementation may not be using
- Read & Write (2020 & 2021)



Model Properties API

- Built on Derivative Services (svf2), extends properties data for analysis of a BIM model
 - **Index** – query, filter properties of a model
 - **Diff** - compare two versions
- Use in products
 - Change analysis in Design Collaboration
 - Clash analysis in Model Coordination
 - Model based workflow in Assets
- Provides granular control on search/query
 - Works with models in Autodesk/BIM 360 Docs
- **Learn later from Melanie Calame**





ACC/BIM 360 API – BIM Collaborate, Takeoff & Build





Model Coordination

- Detect clashes between 3D models
 - rvt, dwg, ifc, nwc
- API
 - Compatible ACC & BIM 360
 - There are related API: Model Properties API (Feb. 2022) expands to all ACC Unified products.

The screenshot displays the Autodesk Construction Cloud Model Coordination interface. At the top, there are icons for a cube, a 3D model, and a person. Below the header, the interface is divided into sections: 'Models' (with a 'Clashes' tab selected), 'Views', and 'Clashes'. The 'Clashes' section shows a preview of a clash detection view titled 'Viewing 2 models (Unsaved View)'. It includes filters for 'Clashes', 'Filter and group', and 'Primary model'. The main area shows a 3D rendering of a building model with a red wall and green structural elements highlighted in red, indicating detected clashes. On the left, a sidebar lists 'Models', 'Clashes' (selected), 'Views', 'Meetings', 'Reports', 'Members', and 'Settings'. The 'Clashes' sidebar also includes a 'Filter and group' button and a 'Primary model' dropdown set to 'Seaport-Civic-Cent...on.rvt - Mech Pipe'. Below this, it shows 'Clash with' (set to 'Seaport-Civic-Cente...works - Electrical'), 'Group by' (set to 'Object'), and a summary of '77 CLASHES (18 Selected)'. A detailed list of clashes is shown, with one entry for a 'Basic Wall [1741199]' highlighted. At the bottom, there are buttons for 'Not an issue' and '+ Create issue'.

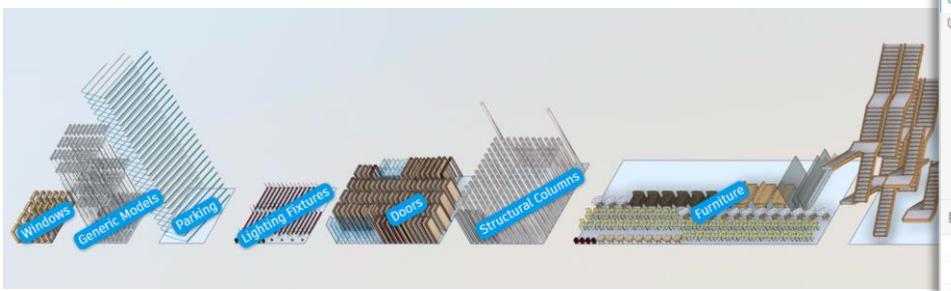


Takeoff



- Quantification in 2D and 3D. ACC only
- API
 - Read inventory data (Oct 2021)
 - Project setting (classifications, setting) write (Feb. 2022)
 - Form Cluster tool
viewer.loadExtension("Autodesk.VisualClusters")

The screenshot shows the Autodesk Construction Cloud Takeoff interface. At the top, there's a navigation bar with 'Takeoff' and project details like 'Seaport Civic Center'. Below it is a sidebar with 'Home', 'Packages', 'Sheets & Models', 'Files', 'Members', and 'Settings'. The main area has tabs for 'Packages' (selected), 'Doors', and 'Inventory'. In the 'Packages' tab, there's a 'Create package' button and a table showing packages for 'Doors' and 'Electrical'. The 'Doors' tab shows a 'Takeoff Types' section with a search bar and a table for 'Concrete' doors. The 'Inventory' tab shows a table for 'Metals' and 'Metal Joists' with columns for Name, Count, Quantity, Unit, Classification, Open Header, Takeoff Name, Quantity, Unit, and Distance (LF). A 'Minimap' view shows the project layout with various rooms and door locations.



The screenshot shows the Autodesk Construction Cloud Sheets & Models interface. It displays a list of '31 sheets and models' and a preview of 'Seaport-Civic-Center_AL...' from 'v3 - Oct 8, 2020'. Below this is an 'Inventory' table for 'Doors and Frames' with columns for Name, Count, Quantity, Unit, Classification, and Document. The table includes rows for Metal Joists, Openings, and Doors and Frames. At the bottom, there are buttons for 'Export' and other file operations.



Build



- **Assets API (Feb, 2021)**

- Compatible
- References - use Relationships API.
- Provide /construction/ endpoints with ACC proxy. Same backend.

- **RFI API**

- ⚠ ○ Compatible, except attachments
- ⚠ ○ /construction/ endpoints deprecated
Use /bim360/ endpoints

The screenshot displays the Autodesk Construction Cloud interface across four panels:

- Top Left Panel (Assets):** Shows the 'Assets' screen with a search bar and filters for categories like HVAC Units, Plant and Equipment, and Water Pumps. It lists assets such as 'WLT-ST-2110' and 'CPM-005' with details like Category, Location, and Created on.
- Top Right Panel (Asset Detail):** Shows a detailed view for asset 'WLT-ST-2110' with tabs for DETAILS, ISSUES, CHECKLISTS, and ATTACHMENTS. It includes fields for Name, Category, Description, and Barcode.
- Middle Left Panel (RFIs):** Shows the 'RFIs' screen with a search bar and a list of open RFIs. One RFI is highlighted: '#19 Open' from 'Door Opening Width'.
- Middle Right Panel (RFI Detail):** Shows a detailed view for RFI '#19' with tabs for DETAILS, ATTACHMENTS, and ACTIVITY. It includes a note from 'David Sanchez (BNIM) should provide an official response' and a 'Submit official response' button.
- Bottom Left Panel (Assets):** Shows the 'Assets' screen for 'Seaport Civic Center' with a sidebar menu including Home, Sheets, Files, Issues, Forms, Photos, RFIs, Submittals, Meetings, Reports, Members, Settings, and Assets.
- Bottom Right Panel (RFI Detail):** Shows a detailed view for RFI '#1' with tabs for DETAILS, ATTACHMENTS, and ACTIVITY. It includes sections for 'Closed and distributed Approved' (by Leah Ho), 'Official response' (Walls of SM CONFERENCE 128 & 129 will match 17'-3" dimension), and 'Activity log' (Add a comment, Due date was updated).



Build



- **Checklists – BIM 360**

- Read API
- Not compatible.

- **Forms – ACC**



- pdf & web forms, checklists, reports
- Forms/template read API (March, 2021)
- Forms write API (April, 2023)



- **Photos – ACC**



- Read API (June, 2021)
 - POST photos:filter
 - GET photos/:photoId



Build



- Sheets - ACC 

- Multi-page PDF to individual page
- PDF only (rvt not supported)
- Read/Write API (Aug., 2022)
- Workflow similar to DM API
+ additional steps.



- AutoSpecs – ACC

- Intelligently create submittal logs
- New feature since March 2023
- Read API

The screenshot displays two main sections of the Build software interface:

Sheets Module: The top section shows a sidebar menu with "Build" and "Xiaodong-Test-Project". The "Sheets" option is selected. The main area is titled "Sheets" and contains a "Number" field and a blue "+ Add sheets" button.

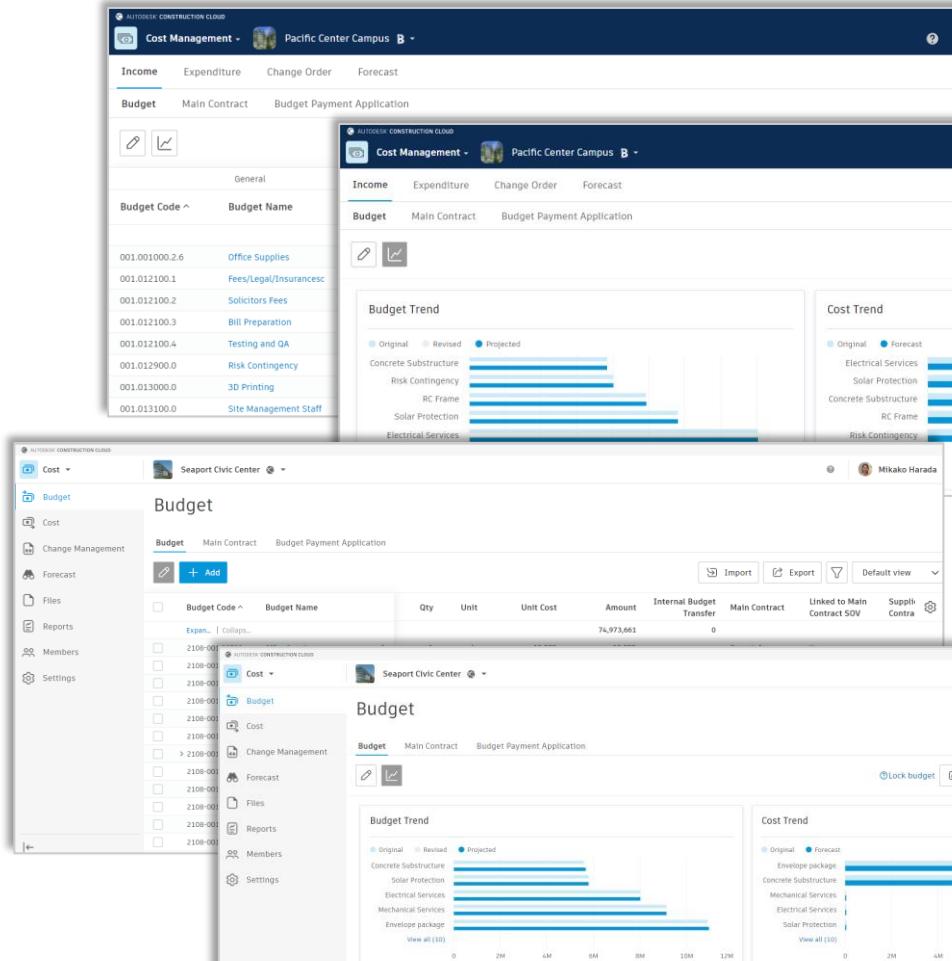
AutoSpecs Module: The bottom section shows a sidebar menu with "AutoSpecs" and "400 Beale". The "Smart Register" option is selected. The main area is titled "Smart Register" and shows "Version: IFC". It includes applied filters for "ACTION AND INFORMATIONAL", "CLOSEOUT SUBMITTALS", and "MOCKUPS". The toolbar below has buttons for "Division", "Section", "Submittal type", "Submittal group (3)", "Reset filters", "+ Add", "Delete", "Copy", "Save", "Undo", "Actions", and "Specification versions". A table below lists submittals with columns for "PDF", "Submittal nu...", "Section number", "Section name", and "Sub section". The first row of data is shown with values: 1, 02 21 00, MONUMENTS, 14-A.



Cost



- Manage, track cost, such as budgets and change orders.
- Many feature enhancements with customization capability
- API
 - Compatible
 - Comprehensive coverage
 - Webhooks (Feb 2023)
 - Request welcome



Learn More

- Documentation on aps.autodesk.com
 - Field Guide
 - Tutorials
 - Reference guide
- github.com/autodesk-platform-services
 - Postman collections
 - A range of code samples from basic to advanced integration
- Blog: aps.autodesk.com/blog
 - Announcement and tips

The screenshot displays two main sections. On the left, the "Autodesk Construction Cloud APIs" page is shown under the "Developer's Guide". It includes sections for "Developer's Guide" and "Step-by-Step Tutorials" with links to "Getting Started", "Assets (beta)", "AutoSpecs", "Issues", "Files (Document Management)", "Forms", "Locations", and "RFIs (Comments)". Below this is an "API Reference" section for "HTTP S". On the right, the "ACC Account Admin API Field Guide" is displayed, detailing the features of the ACC Account Admin API. At the bottom, a "BIM 360 Model Coordination Clash Issues" interface is shown, featuring a "Clash View" dashboard with a table of clash counts for different models and a circular "Powerelli Analysis by Object Category and Clash Count" chart. Below the chart is a table of elements and their clash counts.

Autodesk Construction Cloud APIs

Developer's Guide

Step-by-Step Tutorials

- > Getting Started
- > Assets (beta)
- > AutoSpecs
- > Issues
- > Files (Document Management)
- > Forms
- > Locations
- > RFIs (Comments)

API Reference

HTTP S

BIM 360 Model Coordination Clash Issues

Clash View

Model	Count	Model	Count	Model	Count
(00) Auditon_Architecture.rvt	719	(00) Auditon_Structure.rvt	216		
(00) Auditon_Mechanical.rvt	244				
(00) Auditon_Structure.rvt	324				

Total Clash Count: 1252

Powerelli Analysis by Object Category and Clash Count

Total Clash Count: 1252

Elements

Element	ID	Category	Count	Key
(00) Auditon_Architecture_Floor	1_1000	Floor	1	null
(00) Auditon_Architecture_Floor	2_1000000	Floor	2	null
(00) Auditon_Architecture_Floor	3_10000000	Floor	1	null
(00) Auditon_Architecture_Floor	4_100000000	Floor	1	null
(00) Auditon_Architecture_Floor	5_1000000000	Floor	1	null
(00) Auditon_Architecture_Floor	6_10000000000	Floor	1	null
(00) Auditon_Architecture_Floor	7_100000000000	Floor	1	null
(00) Auditon_Architecture_Floor	8_1000000000000	Floor	1	null
(00) Auditon_Architecture_Floor	9_10000000000000	Floor	1	null
(00) Auditon_Architecture_Floor	10_100000000000000	Floor	1	null
(00) Auditon_Architecture_Wall	1_1000	Wall	1	Current V
(00) Auditon_Architecture_Wall	2_1000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	3_10000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	4_100000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	5_1000000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	6_10000000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	7_100000000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	8_1000000000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	9_10000000000000	Wall	1	Current V
(00) Auditon_Architecture_Wall	10_100000000000000	Wall	1	Current V

Analyzing clashes

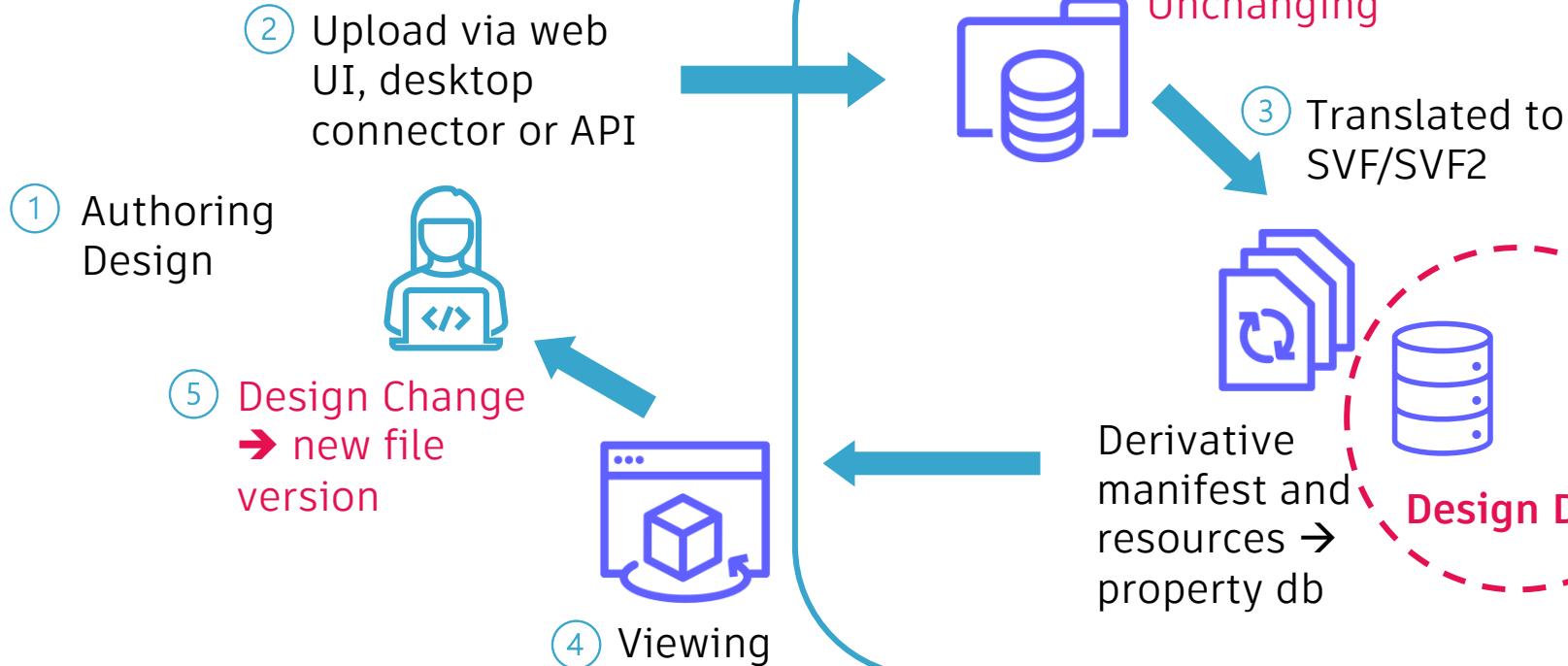


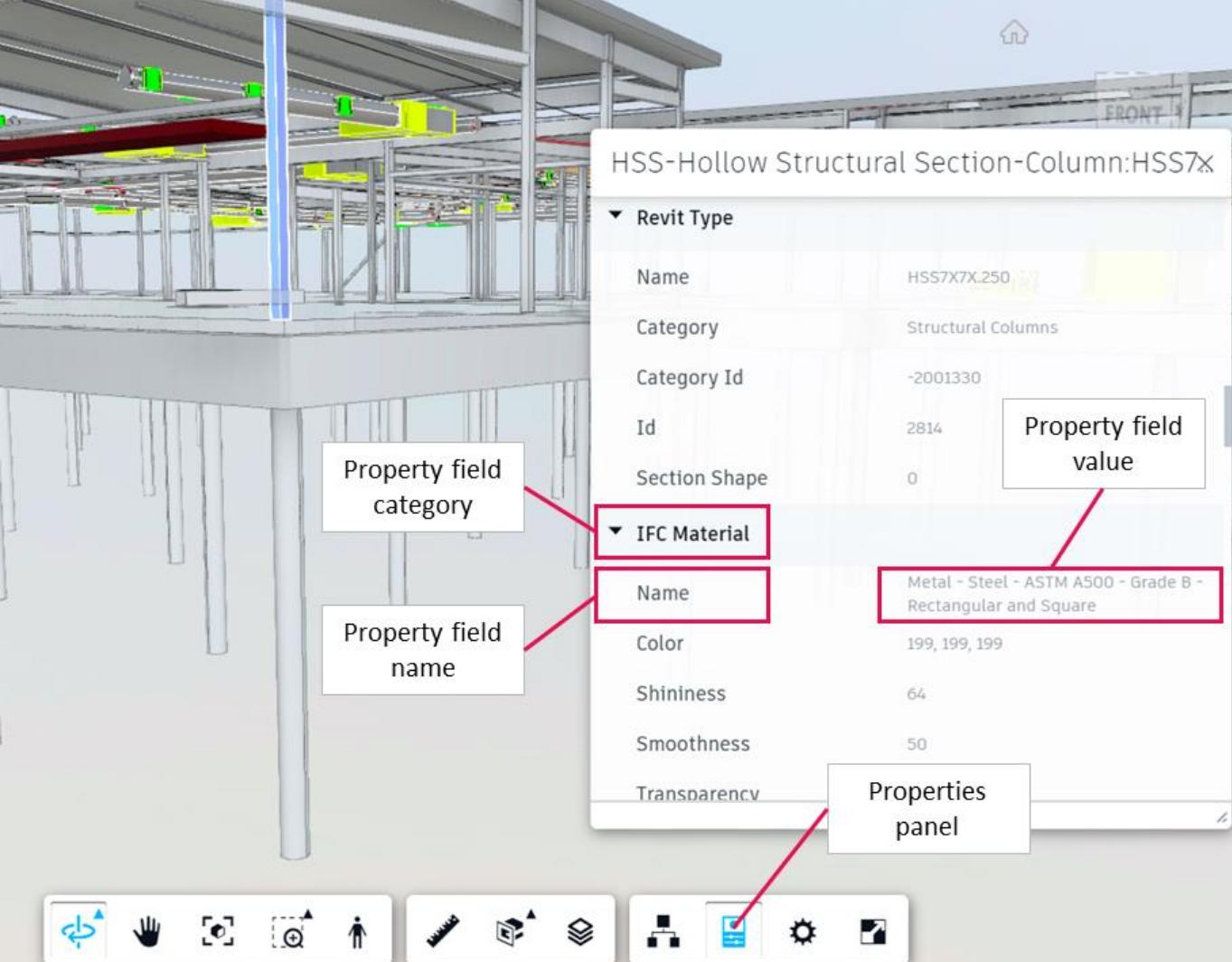
Accessing Model Data – Model Properties API



Design Data File

Life Cycle



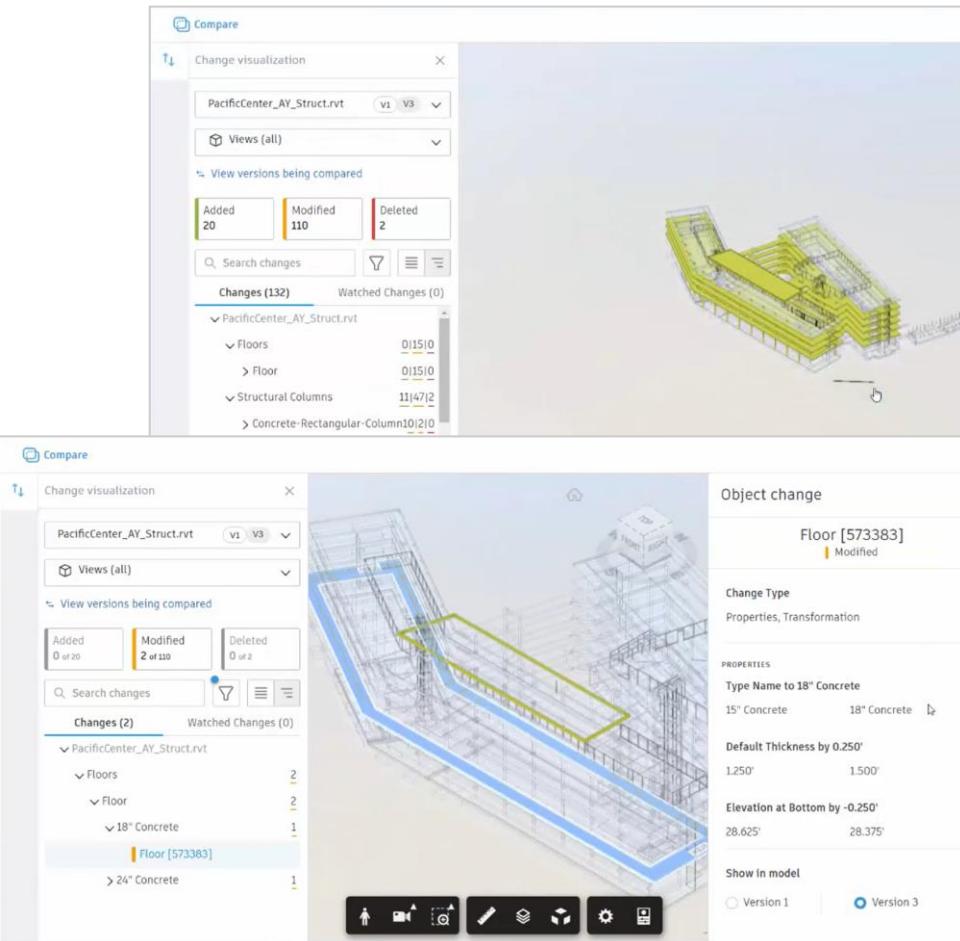


Classifying (BIM) SVF2 model properties

- Category
- Name
- Type (e.g., string, double)
- (Optional) Unit of Measure

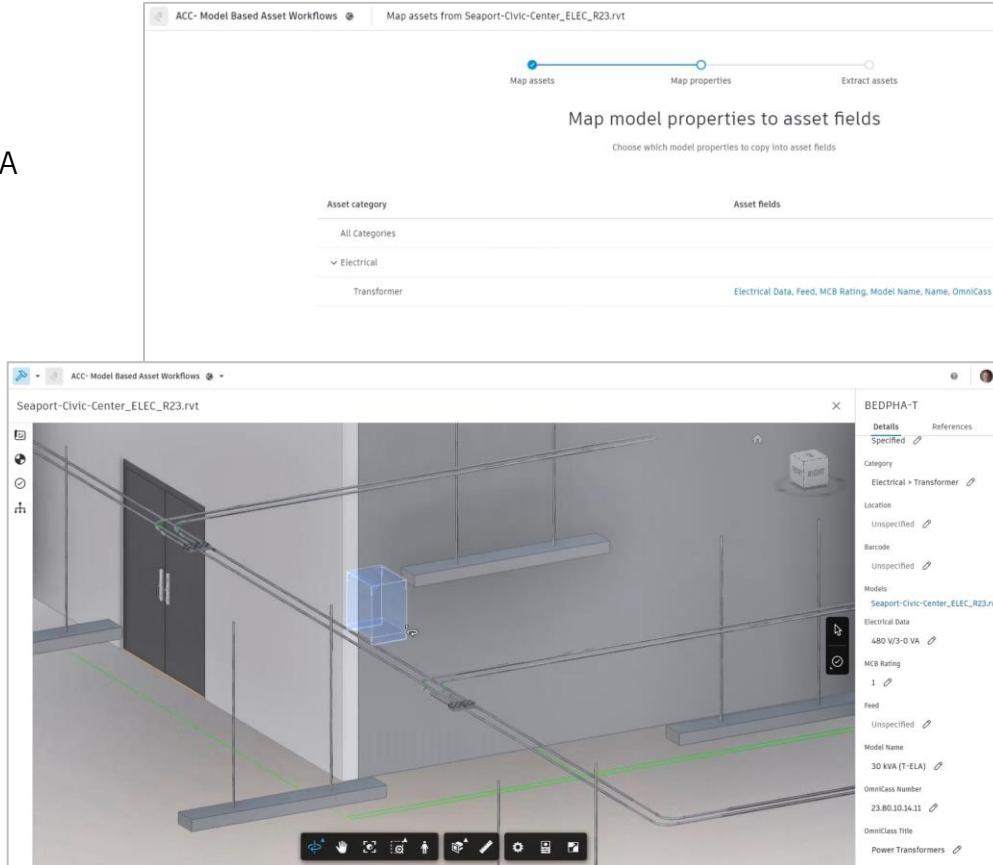
Model Properties API

- Released Feb 2022
- Autodesk/BIM 360 Docs based products. US and EMEA
- Built on PropertyDb from Derivative Services (svf translation)
 - **Index** (Base) – query, filter properties of svf2 objects + extra (viewable bbox)
 - **Diff** – Index + compare two versions
- Used in product
 - Design Collaboration - Changes
 - Model Coordination
 - Model property breakdown
 - Publishing views to Docs
 - Assets – integrating with models



Model Properties API

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- Built on PropertyDb from Derivative Services (svf translation)
 - **Index** (Base) – query, filter properties of svf2 objects + extra (viewable bbox)
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- Used in product
 - Design Collaboration - Change analysis
 - Model Coordination
 - Model property breakdown
 - Publishing views to Docs
 - Assets – integrating with models



Sample Application

Change Analysis in Takeoff and Cost

Application of Diff in Estimate

What it does: Identifies changes in takeoff items, compares current and previous versions of a model and visualizes the differences in the Forge Viewer. Update the budgets data in Cost module.

Code: GitHub sample

Author: Zhong Wu, Autodesk



The screenshot displays the Autodesk Construction Cloud interface with several open modules:

- Sheets & Models:** Shows a list of sheets and models, including "V1 Revit Basic House" and "A103 Elevations/Sections".
- Cost:** Shows the "AU ACC TakeOff Sample Project" with a table of Income items:

Budget Code	Budget Name	Qty	Unit	Unit Cost	Amount	Internal Budget Transfer	Main Contract	Linked to Main Contract SOV
01651.600	Glass	6	nr	230.00	1,380.00	0.00	No	No
09718.997	Window	8	nr	553.00	4,424.00	0.00	No	No
14259.806	Door	2	nr	836.00	1,672.00	0.00	No	No
68081.172	Floor	88	m ²	136.00	11,968.00	0.00	No	No

- Income:** Shows the "Main Contract" and "Budget Payment Application" sections.
- Expenditure:** Shows a table of items:

Type	Unit Price(\$)	Unit
Door	806	nr
Floor	138	m ²
Glass	230	nr
Wall	467	m ²
Window	593	nr

- ACC Project List:** Shows a list of projects, including "Living Room Sample" and "Check my project icon".
- Forge Viewer:** Displays a 3D model of a modern house with a red roof, overlaid with blue highlights and annotations.
- Takeoff Package Budget:** Shows a table of items:

Element	Quantity	Unit	Unit Price(\$)	Amount(\$)
Door	5.00	nr	806	\$4,030.00
Floor	88.07	nr	138	\$11,871.18
Glass	0.00	nr	230	\$0.00
Wall	243.14	nr	467	\$110,244.28
Window	8.00	nr	593	\$4,744.00

- Cost Estimation of takeoff items for the latest version:** Shows a table of items:

Name	Current	LATEST	Quantity	Cost(\$)	BxStd
Basic Wall (490502)	45.78	49.83	4,050/10	1801.30	276
Basic Wall (102745)	0.00	45.33	48,530/2	21508.11	441
Single Window (739882)	1	0	-100	550.00	550
Railing (301640)	436				
Single Window (1100176)	1	0	-100	550.00	550
Basic Wall (492745)					2293.46

Autodesk Takeoff < acc.autodesk.com/takeoff/packages/projects/2f38ddca-0bb2-4907-9047-85add2ba658a?contentSpaceId=9c2233f3-bc88-4e28-9123-46de0f969241&projectScopeId=107&lineageId=urn%3Adesk.wipprod%3Adm.lineage%3AwMYOC69YS... Update

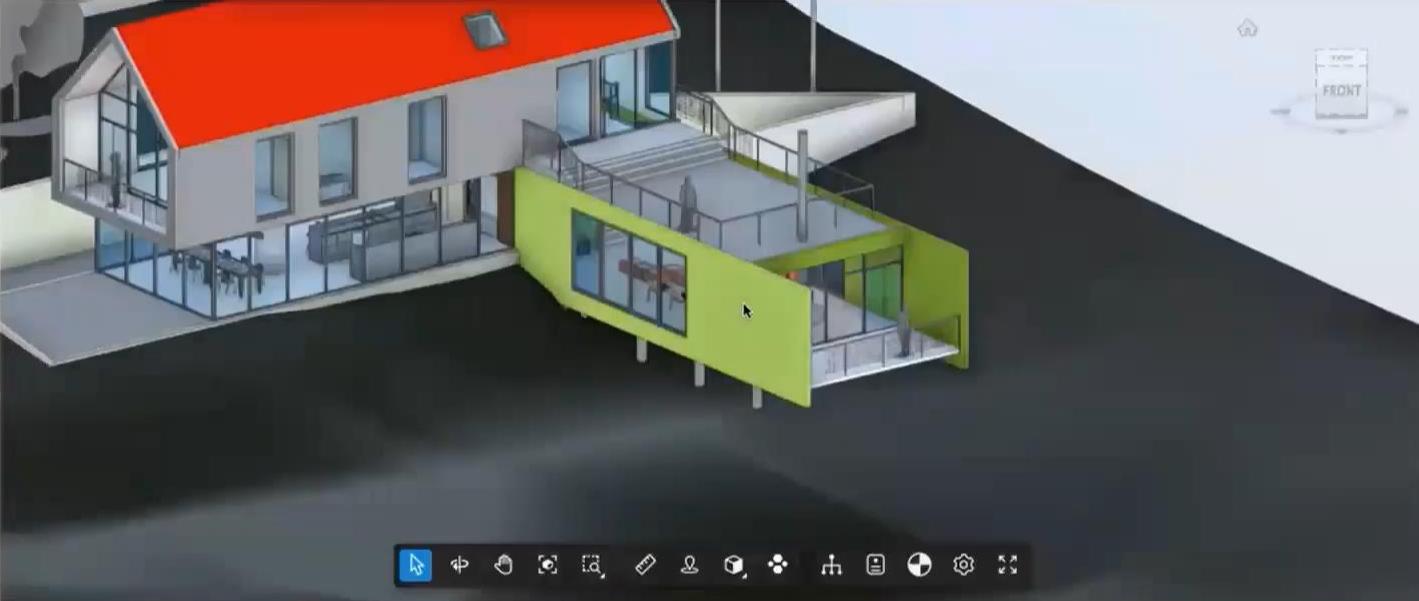
Living Room < rac_basic_sample_project.rvt (V1) <

Takeoff Types

Search +

5 takeoff types

- B - Shell**
 - Door 6 EA
 - Glass
 - Wall 116.53 M2
 - Window
- C - Interiors**
 - Floor



Inventory Group by Takeoff type

Name	Count	Quantity	Unit	Classification	Document	Wall
Door	2	2	EA	B2050.10 - Exterior Entrance Doors	A102	<input type="checkbox"/> Quantity Unit Area (M2) Document
Floor	1	88.05	M2	C2030.45 - Wood Flooring	A102	<input type="checkbox"/> 61.11 M2 61.11 rac_basic_sample_project.rvt
Glass	6	6	EA	B2020.30 - Exterior Window Wall	rac_basic_sample_pro...	<input type="checkbox"/> 42.75 M2 42.75 rac_basic_sample_project.rvt
Wall	4	116.53	M2	B2010.20 - Exterior Wall Construction	rac_basic_sample_pro...	<input type="checkbox"/> 9.37 M2 9.37 rac_basic_sample_project.rvt
Window	8	8	EA	B2020.20 - Exterior Fixed Windows	A102	<input type="checkbox"/> 3.30 M2 3.3 rac_basic_sample_project.rvt

Export

Item count: 4

ACC Takeoff to Cost Sample < Packages - Autodesk Takeoff + acc.autodesk.com/takeoff/packages/projects/2f38ddca-0bb2-4907-9047-85add2ba658a

AUTODESK Construction Cloud

Takeoff AU ACC TakeOff Sample Project ? Zhong Wu Update

Home Packages Sheets & Models Files Members Settings

Packages

Work in progress Apr 27, 2022

+ Create package

Name ^

3rd Concrete Updated by Zhong Wu Last updated Dec 30, 2021 12:33 PM

Living Room Sample Updates Updated by Zhong Wu Last updated Apr 27, 2022 8:09 PM

Sample Package Updates Updated by Zhong Wu Last updated Feb 25, 2022 11:48 AM

Windows Level 1 Updated by Mikako Harada Last updated Jan 19, 2022 5:30 AM

Windows Level 2 Updates Updated by Zhong Wu Last updated Aug 4, 2021 8:32 AM

Show 1 - 5 of 5



How Does it Work?

How does it work?

Basic Workflow



DM/Docs

Files uploaded to Docs via UI, Desktop Connector and API

Model Derivative

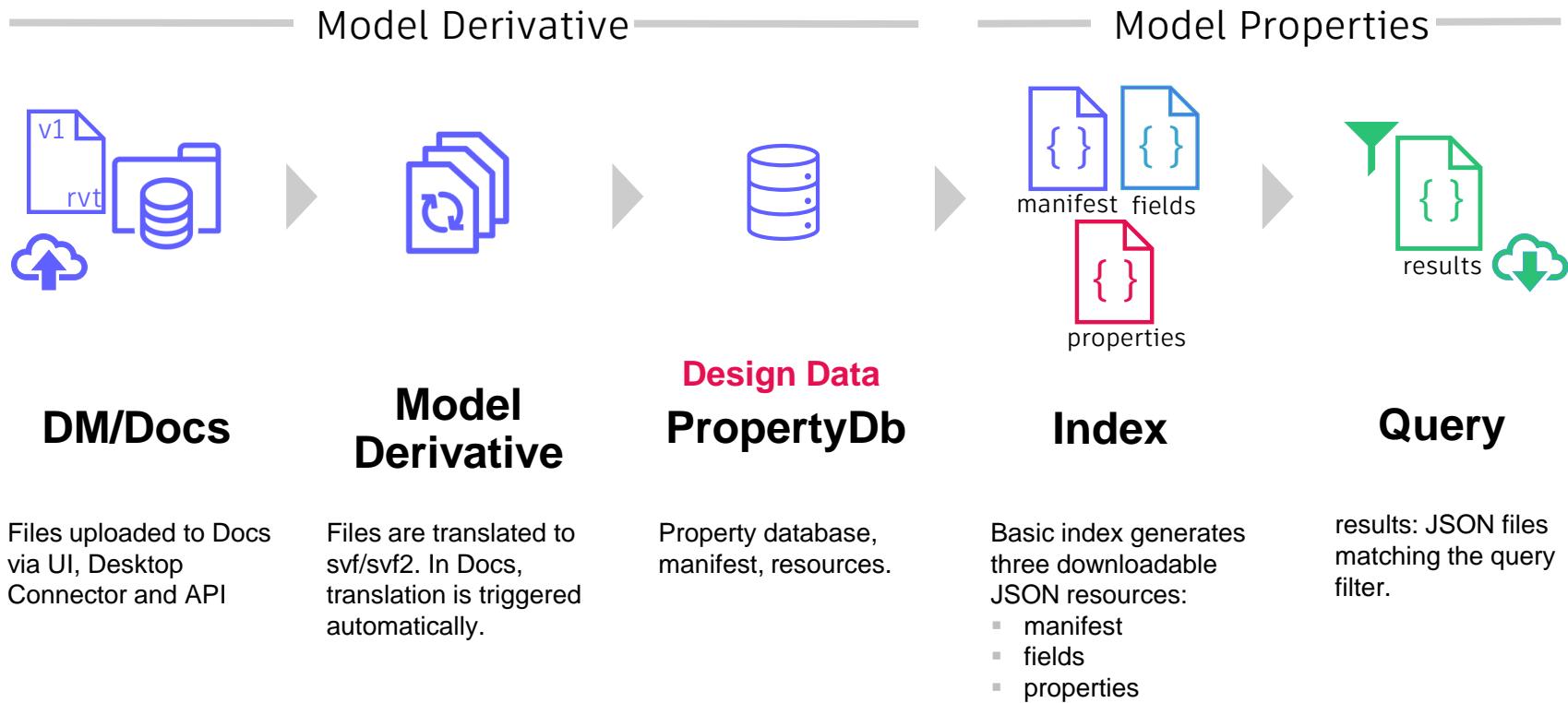
Files are translated to svf/svf2. In Docs, translation is triggered automatically.

Design Data PropertyDb

Property database, manifest, resources.

How does it work?

Basic Workflow



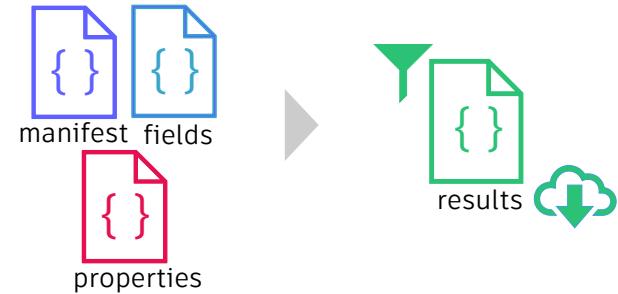
How does it work?

Resources Generated

Resource	Type	Description
manifest	JSON	Manifest for index or query detailing the seed files, svf2 propertyDb used to generate index rows
fields	NDJSON	The set of unique fields (property types) extracted for an index or query
properties	NDJSON	The raw objects property values for the index.
results	NDJSON	The object property results from a query executed.

NDJSON = new-line delimited JSON

Model Properties



Index

Basic index generates three downloadable JSON resources:

- manifest
- fields
- properties

Query

results: JSON files matching the query filter.

Basic Properties (json.gz)

```
{  
    "svf2Id": 68,  
    "lineageId": "a19f7db",  
    "externalId": "b5c4b31f-321a-418d-a61a-0c8e326aa154-0003f740",  
    "lmvId": 2388,  
    "databaseId": "3747dccf",  
    "props": {  
        "p00723fa6": "Main Model",  
        "p13b6b3a0": "HSS7X7X.250",  
        "p153cb174": "HSS-Hollow Structural Section-Column [259904]",  
        "p188478f2": 0.485383241976329e0,  
        "p20d8441e": "Structural Columns",  
        "p30db51f9": "HSS-Hollow Structural Section-Column",  
        "p5eddc473": "Revit Structural Columns",  
        "p63ed81bb": "Superstructure",  
        "p6637df3c": "Metal - Steel - ASTM A500 - Grade B - Rectangular and Square",  
        "pbafde721": "BEARING",  
        ...  
  
        "pddd761c6": "FOUNDATION PLAN",  
        "pe61a57c3": 0e0,  
        "pee815a7f": "None",  
        "pef87fde6": 0e0,  
        "pf4ca6ab": 583333333333334e-16,  
    },  
    "propsHash": "bcde34b3",  
    "propsIgnored": {  
        "p6a81eafd": 2386,  
        "p93e93af5": 2387  
    },  
    "geomHash": "TCC2Cc9tv04EVazM7308BQ",  
    "bboxMin": {  
        "x": -1413565004170512e-13,  
        "y": -5410244931321833e-14,  
        "z": 10000000002097008e-14  
    },  
    "bboxMax": {  
        "x": -14063352214982766e-14,  
        "y": -53379471045994805e-15,  
        "z": 1101965298365471e-14  
    },  
    "views": [  
        "e7fd9d5",  
        "12fc372"  
    ]  
}
```

Object IDs, keys for index manifest JSON.
(Type and ChangeType IF diff index)

Index field property values

Property hash + properties ignored when calculating the hash

SVF2 geometry hash

Bounding box min/max for viewable object

Viewables containing the object (manifest keys to viewable)

Developer Resources

Developer Resources

Documentation

- Field Guide
 - Introduction to Model Properties
- Step-by-Step Tutorials
 - Index Querying
 - Tracking Changes
 - Query Language Reference
- Reference Guide
 - Index
 - Diff

The screenshot shows the Autodesk Construction Cloud APIs documentation page. At the top, there's a navigation bar with links for Platform Vision, Solutions, Getting Started, Documentation, Community, Support, and Pricing. Below the navigation is a header for "Autodesk Construction Cloud APIs" with a version indicator "Version 1". A sidebar on the left contains a "Developer's Guide" section with links for Introduction, Field Guide (Assets (beta), Model Properties), Step-by-Step Tutorials (Getting Started, Assets (beta), Forms, RFIs (beta), Takeoff, Model Properties (Index Querying, Tracking Changes, Query Language Reference)), and API Reference.

The main content area is titled "Introduction to Model Properties" under the heading "Model Properties Service". It explains that the model properties service allows callers to build and query indexes built from the BIM properties of models uploaded to Autodesk and BIM 360 Docs. It mentions that model indexes are built using the PDB (Property Database) files extracted as part of the SVF translation process. It also notes that for a property field to be available for indexing, it must be supported in the SVF translation process. The text continues to describe the backwards compatibility with existing Forge viewer applications and the index rows generated by the service.

In addition to property data, the indexes built by the service contain the identities and coordinates for objects that are viewable via the Forge viewer, allowing callers to view the objects in queries. The API also allows users to trigger the service to calculate changes (diffs) that have occurred between consecutive versions of a model. To calculate a diff, callers specify a previous and current version, and the service compares these versions, computing changes to their property values and box geometry.

Diff index file type support

Unlike basic property indexing, which only depends on SVF translation, diff indexing depends on stability. In order for the model properties service to compare instances of the same design between consecutive versions of a file, the IDs of these elements must be the same. If the ID of a specific element changes between consecutive versions of the file, the ID is said to be unstable and will affect diff comparisons by the model properties service.

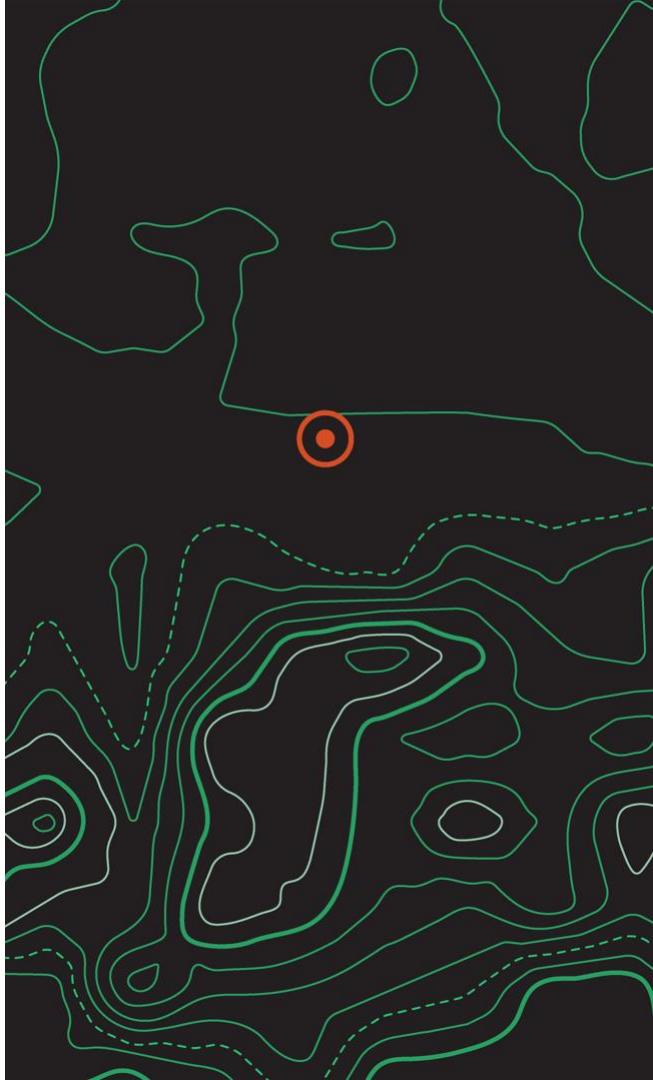
The file types supported by the index service for diff comparisons currently include 3D RVT files, NWC files exported from Revit and AutoCAD verticals, IFC files exported from AutoCAD architecture 3D 2018 and onwards, ARCHICAD, Revit, MagiCAD for Revit, and Tekla Structures.

Developer Resources

- Code Samples on GitHub
 - [Postman Collection](#) (correspond to three Step-by-Step tutorials)
 - [Model Properties API Walkthrough in PowerShell Core](#) (scripting to explore query language)
 - [Element Filtering and Partial Model Load](#) (Integration with Viewer)
 - [Compare Two Versions](#) (Integration with Viewer)
- Blog Post
 - “BIM 360/ACC Model Properties API”
<https://aps.autodesk.com/blog/bim-360acc-model-properties-api>
includes links to the resources
 - Search more with “Model Properties”, e.g.,
<https://aps.autodesk.com/blog/model-properties-api-vs-model-derivative-api>

Summary

- 1 Autodesk Construction Cloud Family Products Overview
- 2 API - Big Picture
- 3 Accessing Project Data
- 4 Accessing Model Data: Model Properties API
- 5 Q & A





Design & Make Platform