

# Introduction to BIM 360 Account Level API

*BIM 360 Hackathon: Day 6*

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## Webinar Series Quick Recap ...

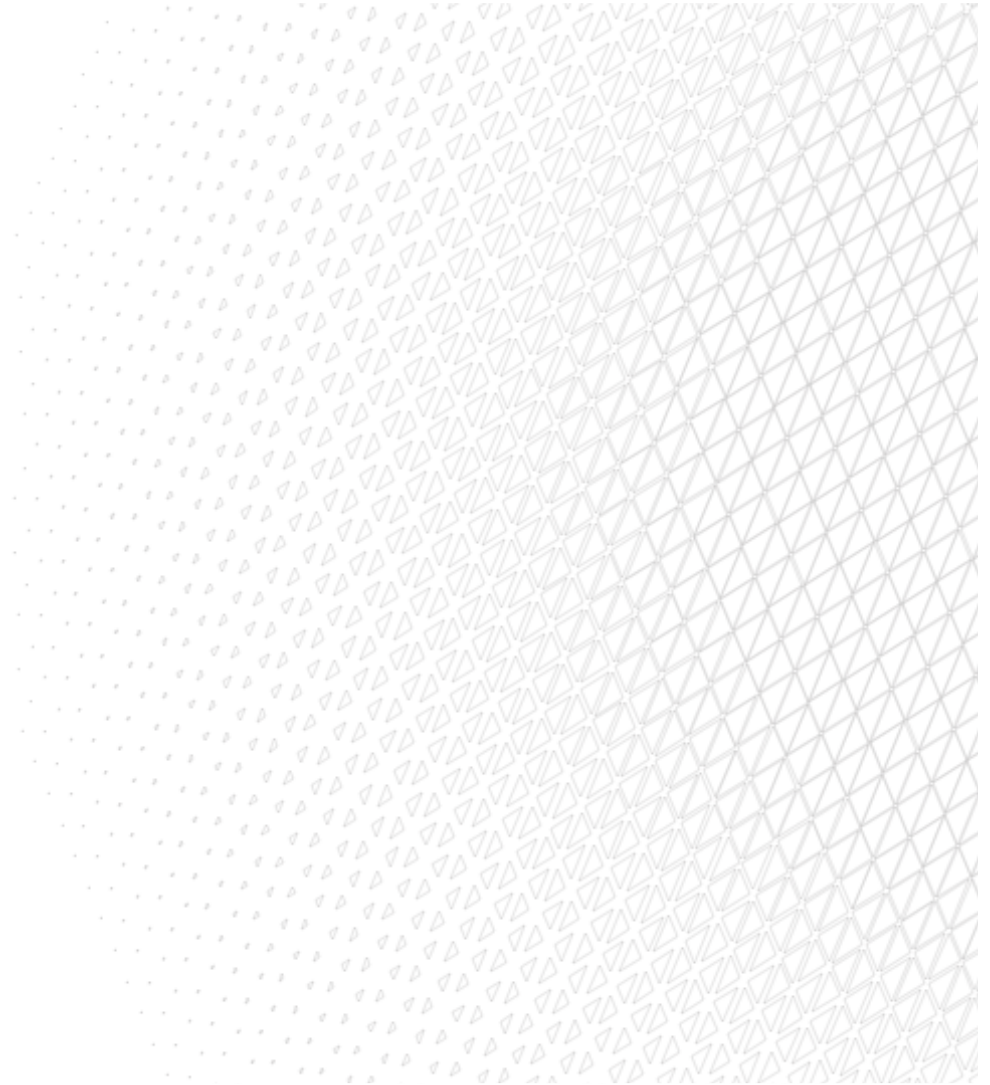
1. BIM 360 & Business Opportunity with App Store
2. BIM 360 & Forge API Overview
3. Authentication and Data Management API
4. Model Derivative API
5. Viewer API
6. **BIM 360 Account Level API**
7. Submitting a BIM 360 App to Autodesk App Store

# Agenda

## BIM 360 Account Level API

- Scope
- Authentication
- Account Level API

## Q&A



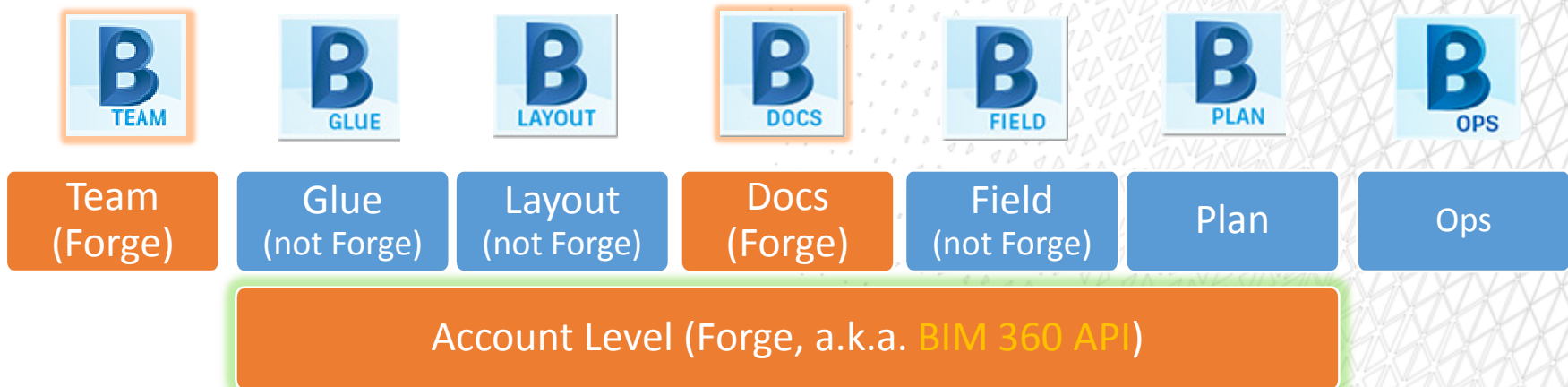


BIM 360 Account Level API (a.k.a. BIM 360 API)



# BIM 360 Family Products

Forge vs. non-Forge



# BIM 360 Docs – API Overview

Authentication (OAuth)

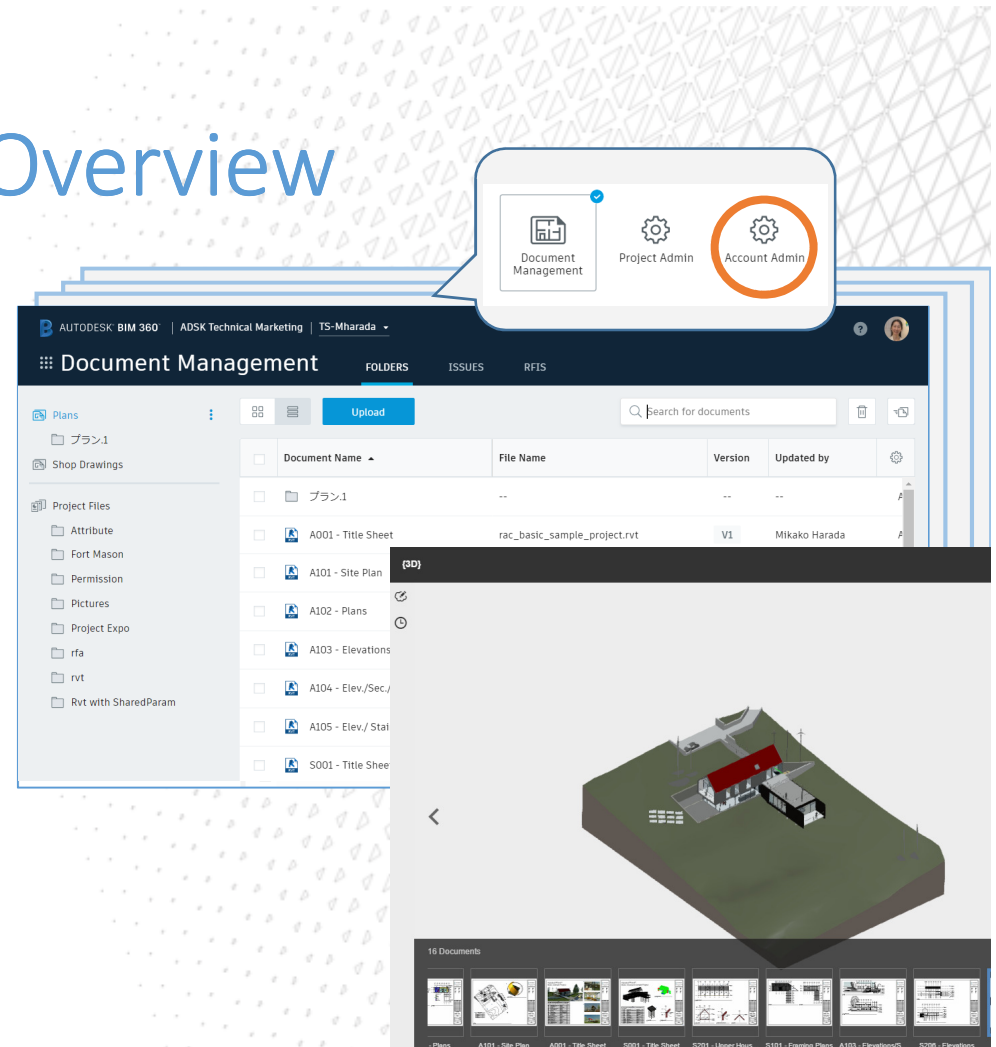
BIM 360 API (Account Level)

Data Management API

Model Derivative API

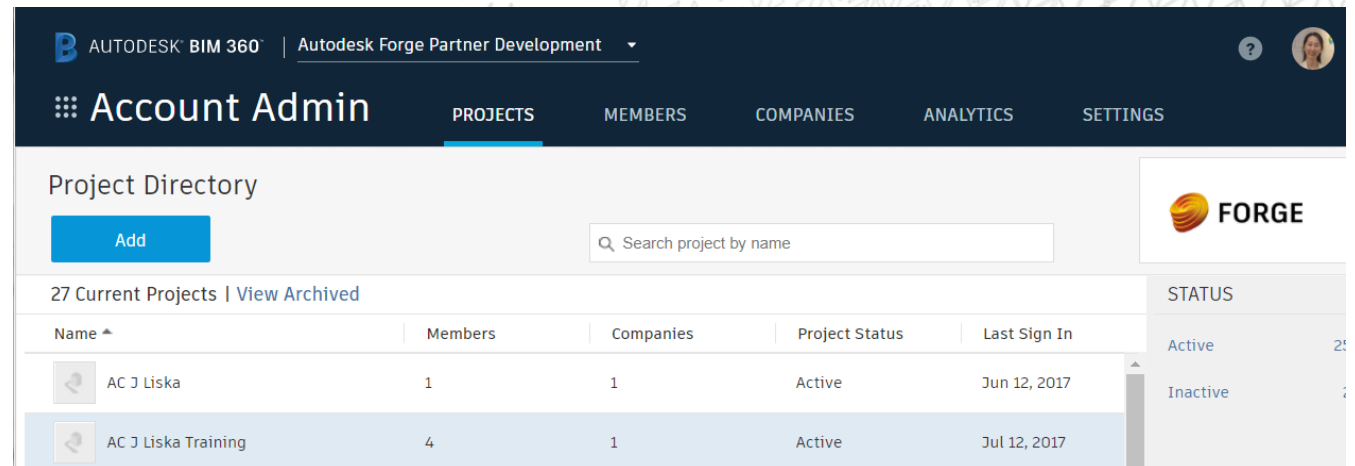
Viewer

Issues API (Future)



# Account Admin API (BIM 360 API)

- admin.b360.autodesk.com
- Projects
- Members
- Companies



The screenshot displays the Autodesk BIM 360 Account Admin interface. The top navigation bar includes the Autodesk BIM 360 logo, the text "Autodesk Forge Partner Development", and a user profile icon. Below this, the "Account Admin" section is active, with tabs for PROJECTS, MEMBERS, COMPANIES, ANALYTICS, and SETTINGS. The main content area is titled "Project Directory" and features an "Add" button and a search bar labeled "Search project by name". Below the search bar, it indicates "27 Current Projects | View Archived". A table lists projects with columns for Name, Members, Companies, Project Status, and Last Sign In. Two projects are visible: "AC J Liska" and "AC J Liska Training". A sidebar on the right shows the "FORGE" logo and a "STATUS" filter with options for "Active" and "Inactive".

Name	Members	Companies	Project Status	Last Sign In
AC J Liska	1	1	Active	Jun 12, 2017
AC J Liska Training	4	1	Active	Jul 12, 2017

<https://developer.autodesk.com/en/docs/bim360/v1/overview/>

## Forge and BIM 360 API – Scope

<https://developer.autodesk.com/en/docs/bim360/v1/overview/>

*“At present, the BIM 360 API offers **account-level functionalities** that enable developers to work with BIM 360 account administration workflows.”*

<https://admin.b360.autodesk.com/>



[APIs](#) ▾[Support](#) ▾[SIGN UP](#)[SIGN IN](#)[Overview](#)[API Basics](#)[Field Guide](#)[Parameters](#)[Step-by-Step Tutorials](#)[API Reference](#)[BIM 360 API](#) > [Overview](#) > [On this page](#) ▾[v1](#) ▾

## BIM 360 API

The BIM 360 API allows developers to develop apps that integrate with the Autodesk BIM 360 platform to extend its capabilities in the construction ecosystem. Integration use cases include, but not limited to, connecting BIM 360 with Enterprise Resource Planning (ERP) systems for project automation, connecting BIM 360 data with project management solutions, integrating BIM 360 data with cost estimation and financial systems, and many others. Integrations built with the BIM 360 API help designers, engineers, and contractors reduce manual data entry, improve data quality and consistency, and automate construction workflows.

At present, the BIM 360 API offers account-level functionalities that enable developers to work with BIM 360 account administration workflows.

### Account-Level Functionality

The account-level functionalities of BIM 360 API allow customers to connect their BIM 360 accounts with external applications in their construction ecosystem. They provide secure access to your BIM 360 accounts, serving as the single point of integration for projects, partner companies, user management, and other account-level information. They enable better-connected workflows across the project lifecycle, shared data across the project team, and construction insight across your project portfolio.



## Account Level API & Authentication

# Apps & Integrations

The screenshot displays the Autodesk Forge Partner Development Account Admin interface. The top navigation bar includes the Autodesk BIM 360 logo, the text "Autodesk Forge Partner Development", and a user profile icon. Below this, the "Account Admin" section is active, with sub-tabs for "Profile", "Business Units", "Apps & Integrations", and "Admin Activities". The "Apps & Integrations" tab is selected and highlighted with an orange circle. On the left side of the main content area, there is an "AUTODESK Forge" section with a description and an "Add Integration" button, which is also highlighted with an orange circle. The main content area displays a grid of six integrated applications, each with a thumbnail, name, and status:

Application Name	Status
MHAppForgeDM	Active
MHForgeDemoApp2	Active
myDemoApp	Suspended
XL_Test_BIMDocs	Active
WorkshopSample	Active
MyPostmanTest	Active

Autodesk, Inc. [US] | https://admin.b360.autodesk.com/...

## Add 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

a4f95080-84fe-4281-8d0a-bd8c885695e0 ☒ I have saved the Account ID information

**Fill in App Information**

\* Forge Client ID

o57oA9BMeJlmbqxQLo6TvVARurZc9U6

App Logo

Select image to upload

\* App Name

TestApp

App Description

my test app

Autodesk, Inc. [US] | https://developer.autodesk.com/myapps/TestAp...

Production

AUTODESK FORGE

INTERNAL VERSION (Production)

## TestApp

About this app (Created 29 May 2017)

Client ID

o57oA9BMeJlmbqxQLo6TvVARurZc9U6

Client Secret

●●●●●●●●●● ☐ REGENERATE

App Name

TestApp

Description

TestApp


CallBack URL

http://myurl.test.com

# Authentication Methods for Forge

## OAuth2

- 2-legged << **Account Level API**
  - Application context
- 3-legged
  - User context
  - Re-direct to accounts.autodesk.com



Sign in

Email or Username

**NEXT**

NEW TO AUTODESK? [CREATE ACCOUNT](#)

<https://developer.autodesk.com/en/docs/oauth/v2/overview/>





# BIM 360 Account Level API

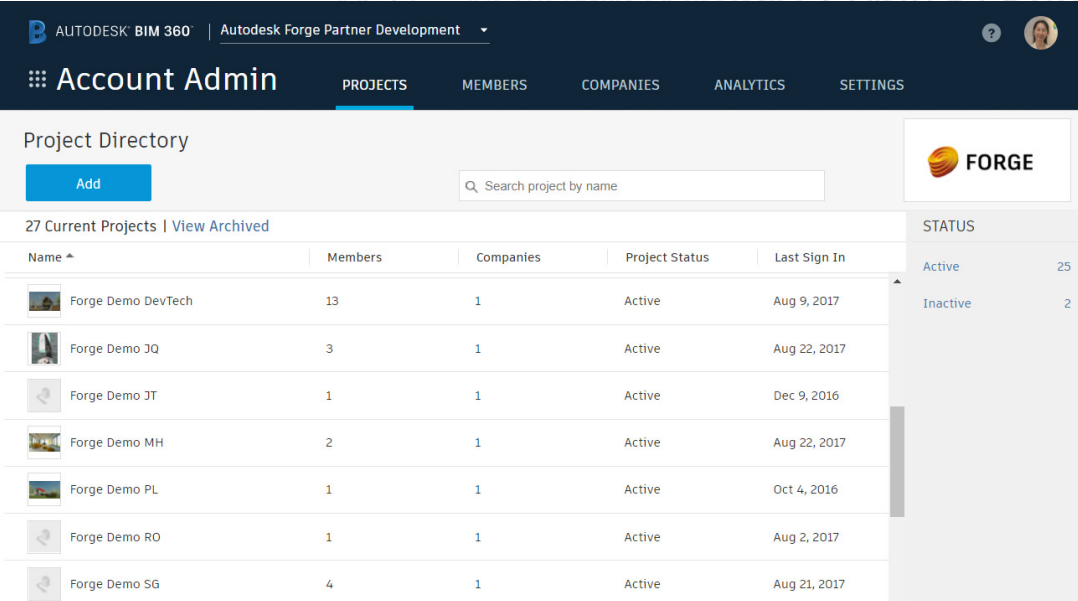
# Account Admin Functionality

## *User Roles:*

Account Admins, Corporate Developers, and External 3<sup>rd</sup> Party Developers

## *Account Admin API Categories:*

- Secure Account Access Control
- Project Creation/Access Control
- Project Profile
- Partner Companies Directory
- Master Member Directory
- Business Unit Data



The screenshot displays the Autodesk Forge Account Admin interface. The top navigation bar includes the Autodesk BIM 360 logo, a dropdown for 'Autodesk Forge Partner Development', and user profile icons. The main header shows 'Account Admin' with tabs for PROJECTS, MEMBERS, COMPANIES, ANALYTICS, and SETTINGS. The 'Project Directory' section features an 'Add' button and a search bar. Below, a table lists 27 current projects. A sidebar on the right shows the status distribution: 25 Active and 2 Inactive.

Name	Members	Companies	Project Status	Last Sign In
Forge Demo DevTech	13	1	Active	Aug 9, 2017
Forge Demo JQ	3	1	Active	Aug 22, 2017
Forge Demo JT	1	1	Active	Dec 9, 2016
Forge Demo MH	2	1	Active	Aug 22, 2017
Forge Demo PL	1	1	Active	Oct 4, 2016
Forge Demo RO	1	1	Active	Aug 2, 2017
Forge Demo SG	4	1	Active	Aug 21, 2017

STATUS

- Active: 25
- Inactive: 2

# Account Admin Functionality

## BIM 360 API Overview

### AUTODESK® BIM 360™ APIs

Autodesk BIM 360 gives construction project teams the tools to coordinate better, communicate more effectively, and resolve issues quickly, resulting in faster and more efficient construction project delivery. BIM 360 APIs offers a collection of web services that allows developers to integrate the BIM 360 platform with other third party applications and extend the capabilities for a seamless construction eco-system. Existing examples of integrations include connecting BIM 360 with Enterprise Resource Planning (ERP) systems for project automation, connecting BIM 360 data with project management solutions, integrating BIM 360 data with cost estimation and financial systems, etc.

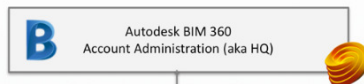
BIM 360 is an open platform built on APIs and we plan to make these APIs available through Forge for a unified and consistent developer experience. Current BIM 360 API functionality includes Account Level APIs that allow developers to work with BIM 360 account administration.

#### Account Level API

BIM 360 Account Level APIs allows customers to integrate their BIM 360 account with external applications in their construction ecosystem to automate workflows, reduce manual data entry, and improve data quality. The BIM 360 Account Level API provides secure access to your BIM 360 account and serves as the single point of integration for projects, partner companies, user management and other account level information.

#### Features

- Account Access Control – secure access to BIM 360 enterprise account/tenant
- Project Service – ability to create a unified project across all BIM 360 services including Docs, Glue, Field, and Plan
- Project Profile – shared project ID and profile
- Partner Companies Directory – add/edit/sync Company data with external systems
- Master Member Directory – add/sync Users with external systems
- Business Unit – add/edit Business Units with external systems



#### Projects

POST projects  
GET projects  
GET projects/:id  
PATCH projects/:id  
PATCH projects/:id/image



#### Companies

POST companies  
Post companies/import  
GET companies  
GET companies/:id  
GET companies/search  
PATCH companies/:id  
PATCH companies/:id/image



#### Users

POST users  
POST users/import  
GET users  
GET users/:id  
GET users/search  
PATCH users/:id  
POST projects/:project\_id/users

#### Business Units

PUT business\_units\_structure  
GET business\_units\_structure

Visit: [developer.autodesk.com/en/docs/bim360/v1](https://developer.autodesk.com/en/docs/bim360/v1)

# HQ API

## Grill down

### Request:

request area

### Response:

```
[{"id": "0889c9f8-dcbe-4417-85bb-d7473a1fd1f1", "account_id": "a4f95080-84fe-4281-8d0a-bd8c885695e0", "name": "AC J  
Liska", "start_date": "2016-02-  
20", "end_date": "2019-02-  
20", "value": 1000000.0, "currency": "USD", "status": "  
active", "job_number": "", "address_line_1": "", "addr  
ess_line_2": "", "city": "", "state_or_province": null  
, "postal_code": "", "country": "United  
States", "business_unit_id": null, "created_at": "201
```

### Tree View:

```
[-] JSON[7]  
  [+] {} 0  
  [+] {} 1  
  [+] {} 2  
  [+] {} 3  
  [+] {} 4  
  [-] {} 5  
    id : 4344f3c5-4299-497b-b3d9-8cd9a7f281eb  
    account_id : a4f95080-84fe-4281-8d0a-bd8...  
    name : Forge Demo MH  
    start_date : 2016-10-04  
    end_date : 2019-10-31  
    value : 1230000  
    currency : USD  
    status : active  
    job_number : 110-230-5567
```

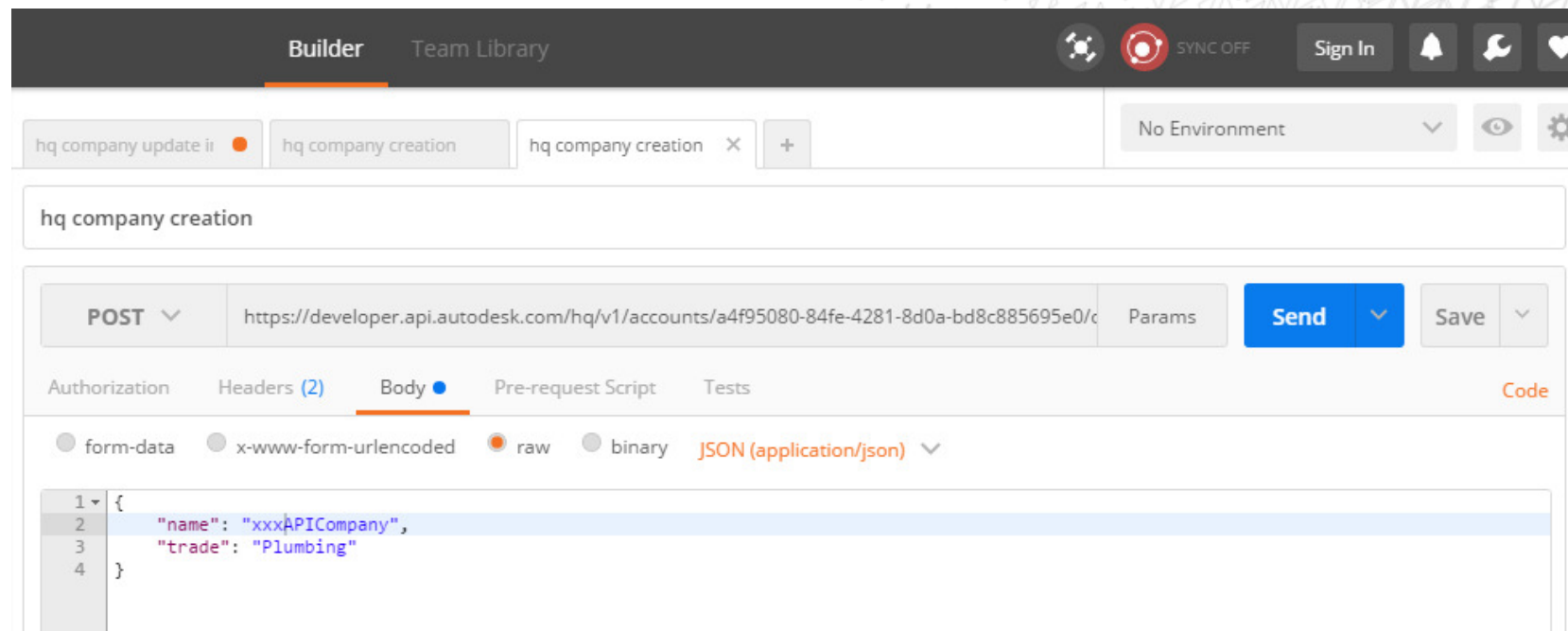
hq

accounts/{account\_id}/projects  
accounts/{account\_id}/projects  
accounts/{account\_id}/projects/{project\_id}  
accounts/{account\_id}/companies  
accounts/{account\_id}/companies/{company\_id}  
accounts/{account\_id}/companies/search  
accounts/{account\_id}/users  
accounts/{account\_id}/users/{user\_id}  
accounts/{account\_id}/users/search  
accounts/{account\_id}/business\_units\_structure

### Parameters:

	Name	Value
>	detailed	
>	limit	
>	offset	
>	sort	
>	field	
>	account_id	<u>a4f95080-84fe-4281-8d0a-bd8c885695e0</u>

# Company Creation Example





# Account Level API

- Hubs vs. Accounts
  - hubs\_id vs. account\_id
  - **b.**abc12345 (in DM) vs. abc12345 (in Account Admin)
- Project creation
  - accept e-mail notification
  - Project members – future enhancement wish

# No “Apps & Integrations”?

Send the requests to: [bim360appsactivations@autodesk.com](mailto:bim360appsactivations@autodesk.com)

Information needed:

1. BIM 360 Account ID(\*)
2. BIM 360 Account Name
3. BIM 360 Account Admin Email

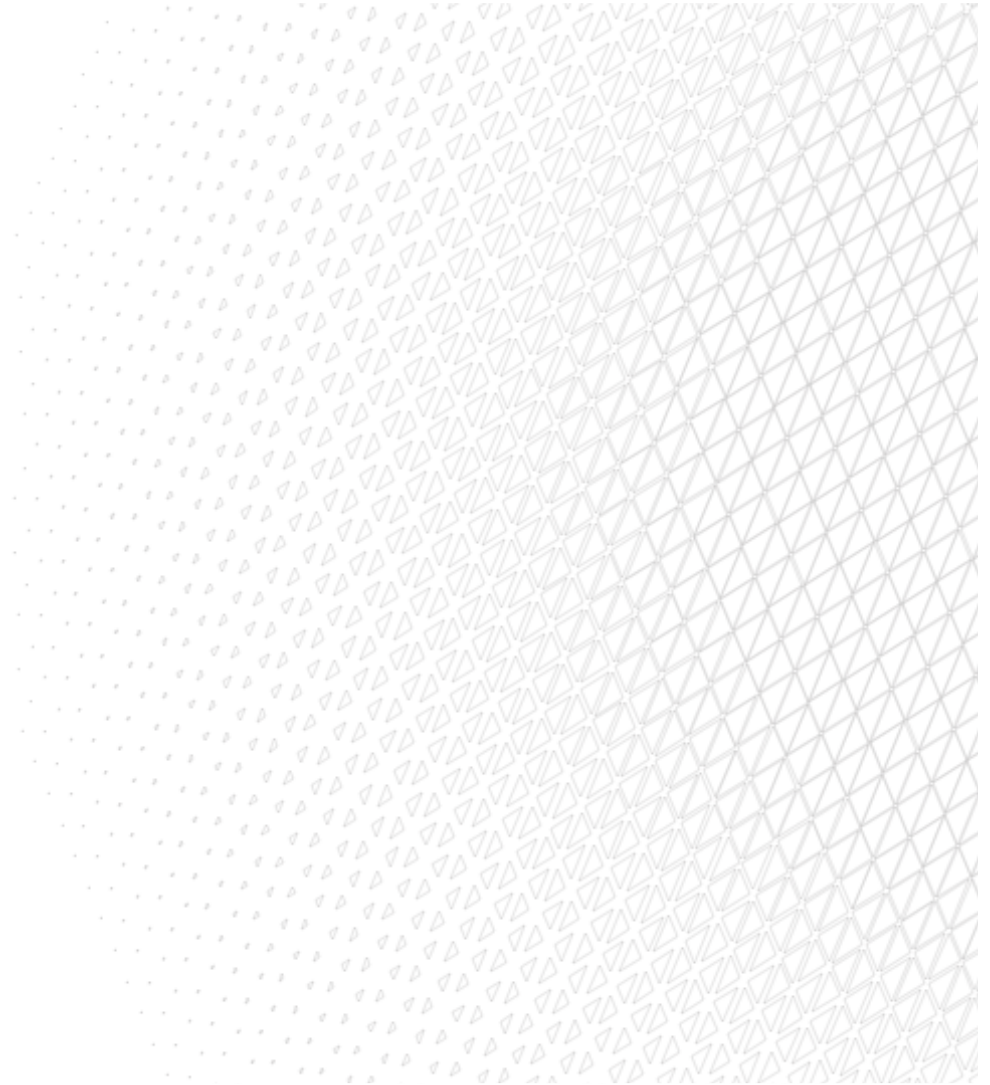
\*) BIM 360 Account Admin >> “Settings” tab  
>> “View Account ID” link in the bottom-left of the screen.

# Summary

## BIM 360 Account Level API

- Scope
- Authentication
- Account Level API

## Q&A



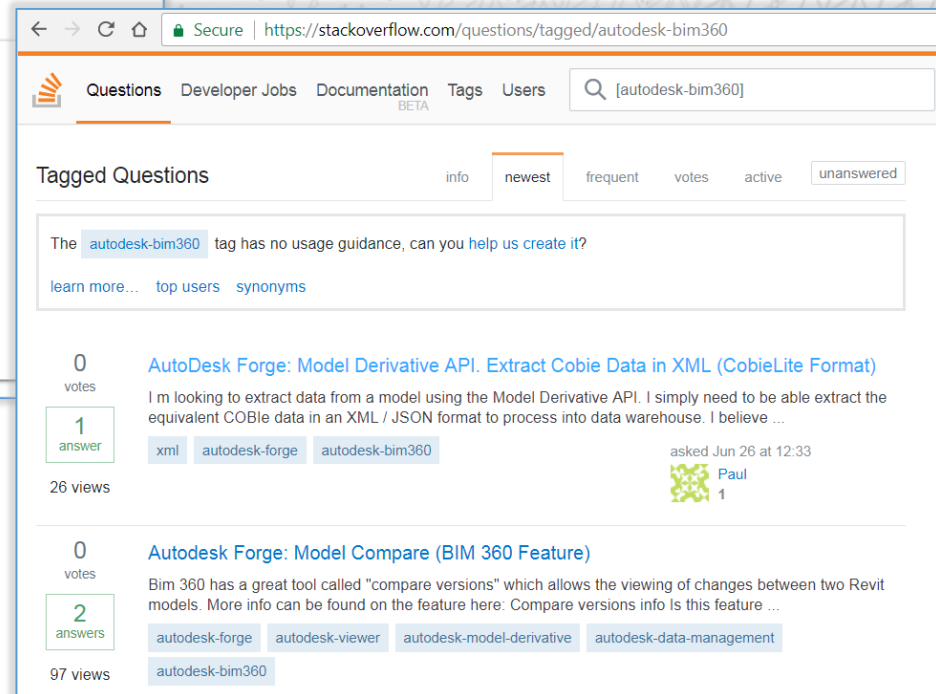
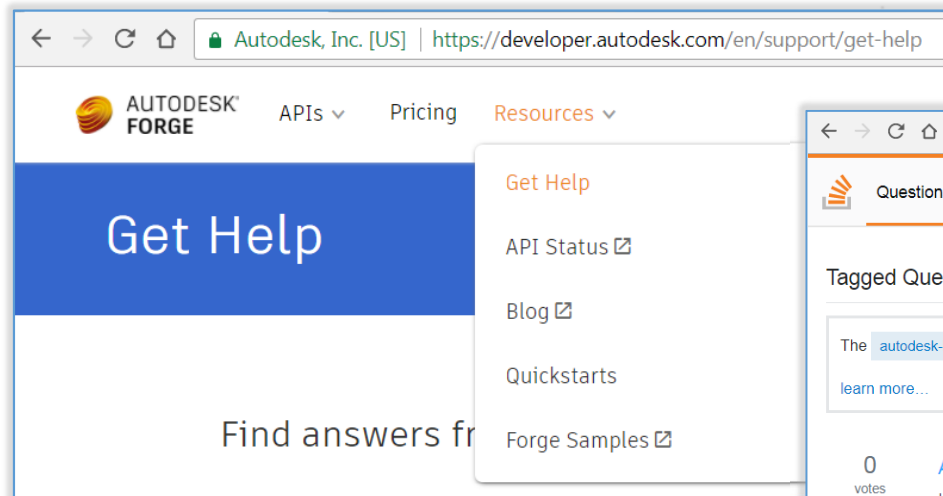
## Recording

<https://fieldofviewblog.wordpress.com/2017/08/19/materials-from-bim-360-online-hackathon-webinars/>

Or search

“YouTube BIM 360 Online Hackathon”

# Questions?





## Contact for further inquiry

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