Introduction to BIM 360 API

Presentation as a part of Forge Hackathon event

Mikako Harada

AEC Technical Lead & Americas Manager
Developer Technical Services, Autodesk

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Agenda

- Forge and BIM 360 API
  - Scope
  - Product Overview
- BIM 360 Account Level API
- Q&A

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Forge and BIM 360 API

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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://bim360enterprise.autodesk.com/

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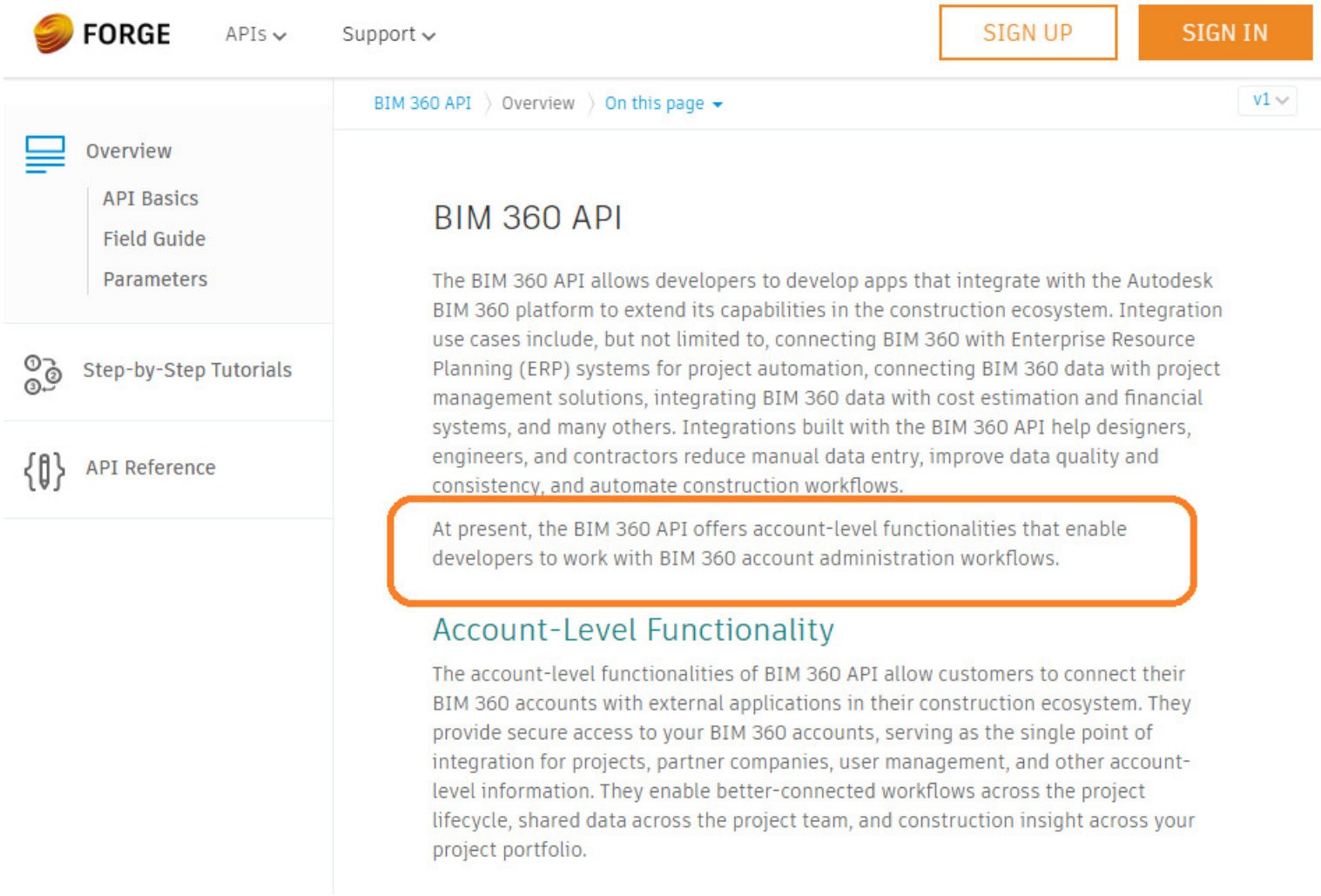
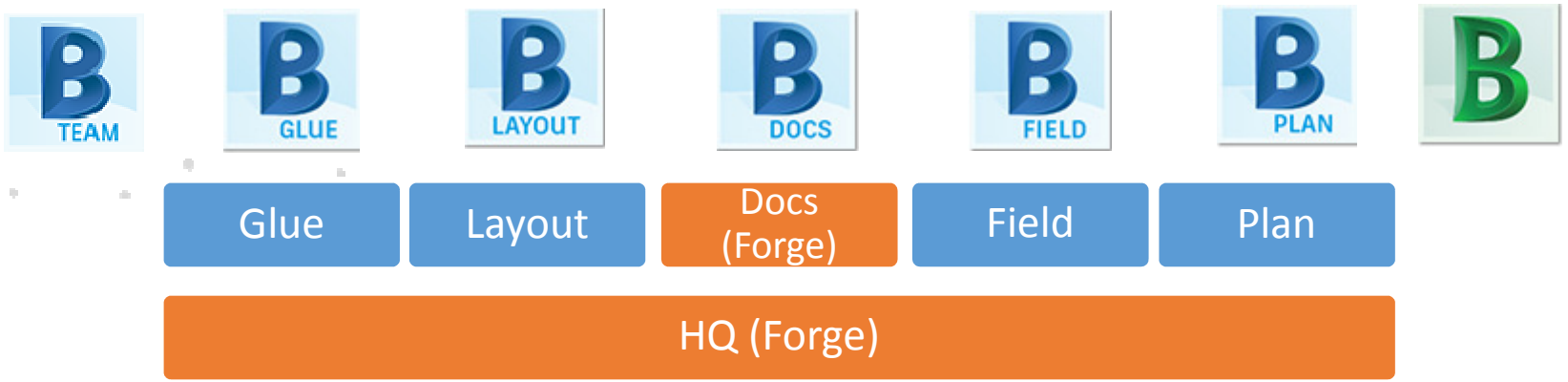

FORGE
APIs
Support
SIGN UP
SIGN IN
BIM 360 API
Overview
On this page
v1
Overview
API Basics
Field Guide
Parameters
Step-by-Step Tutorials
API Reference
BIM 360 API
The BIM 360 API allows developers to develop apps that integrate with the Autodesk BIM 360 platform to extend its capabilities in the construction 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.

BIM 360 Family Products

- HQ – Forge API
- Docs – Forge API (coming)



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Enterprise Account Level API & Authentication

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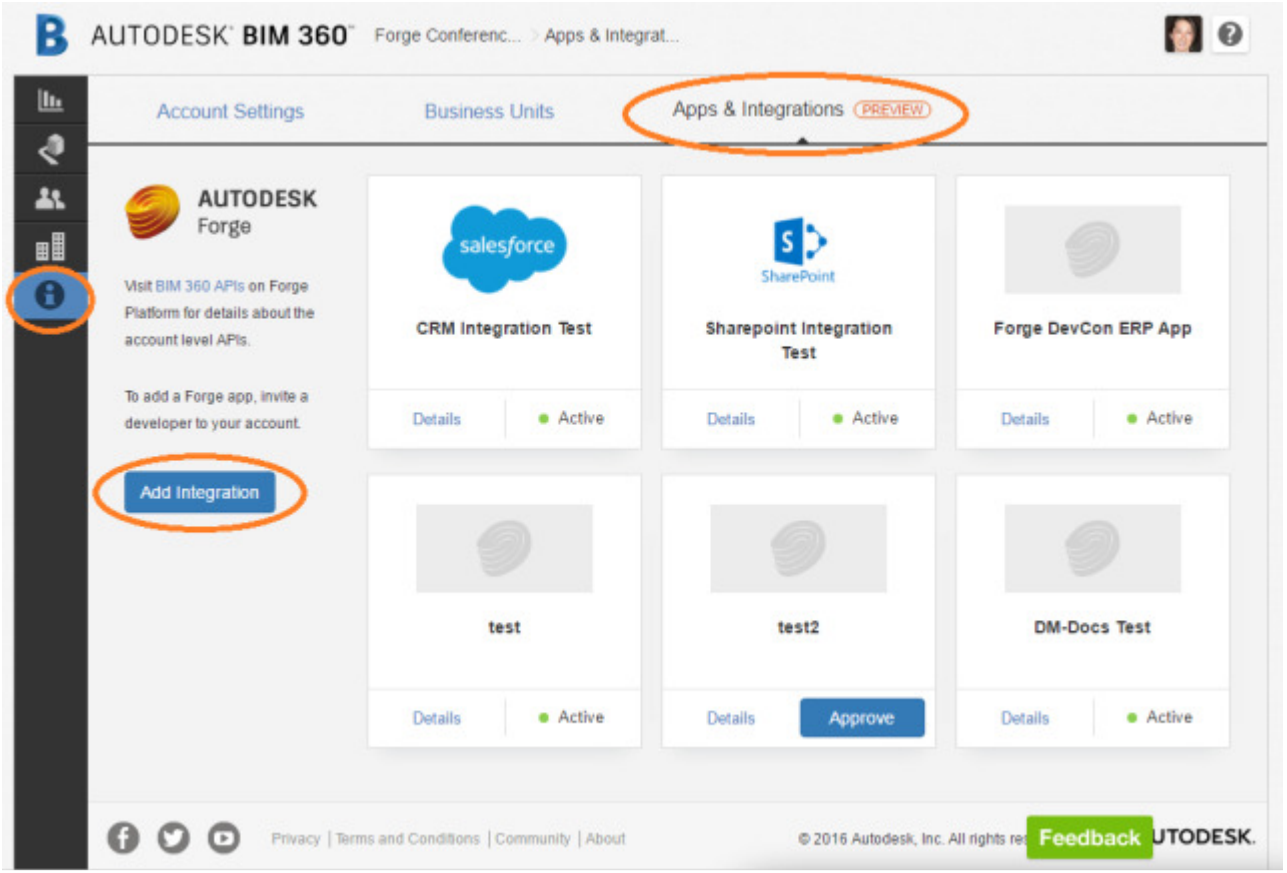
Apps & Integrations



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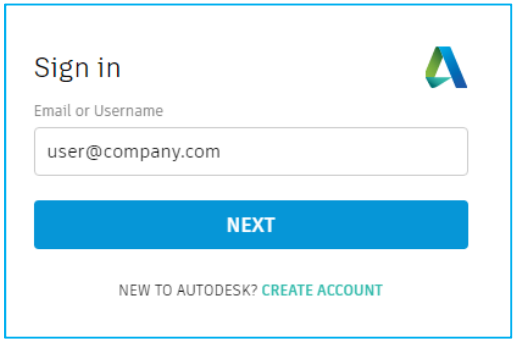
Authentication Methods for Forge

- OAuth2
  - 2-legged – **HQ**
    - Application context
  - 3-legged
    - User context
    - Re-direct to accounts.autodesk.com



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

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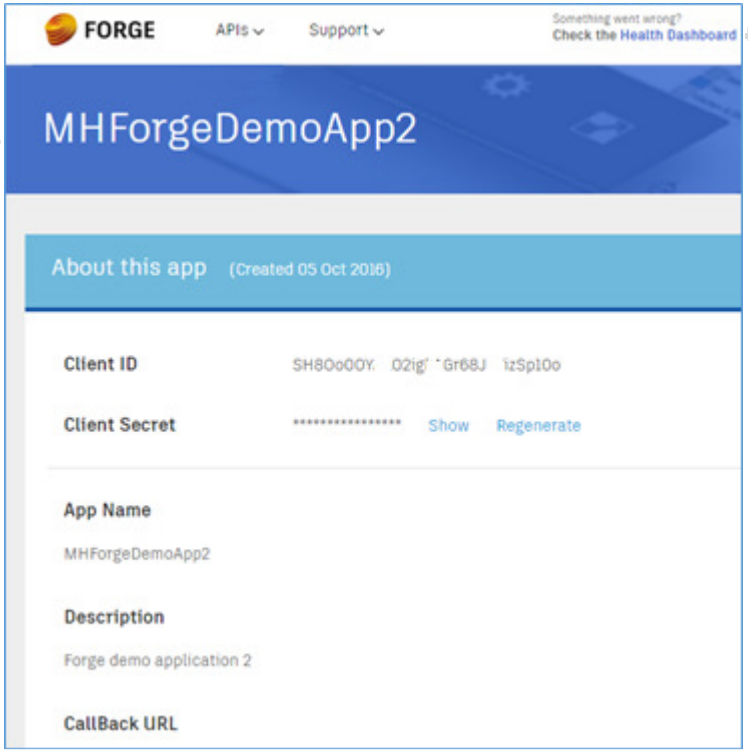
My Apps Portal

- https://developer.autodesk.com/myapps
- Client ID
- Client Secret



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BIM 360 HQ API

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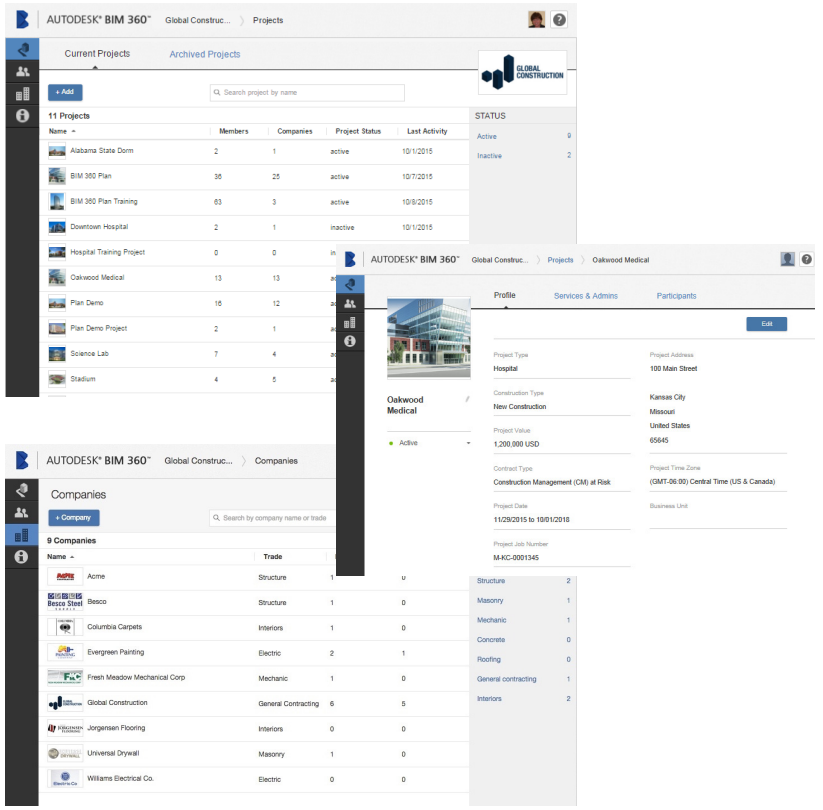
BIM 360 API | Account-level (HQ) Functionality

Key User Roles:

Account Admins, Corporate Developers, and External 3rd Party Developers

Key HQ API Categories:

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



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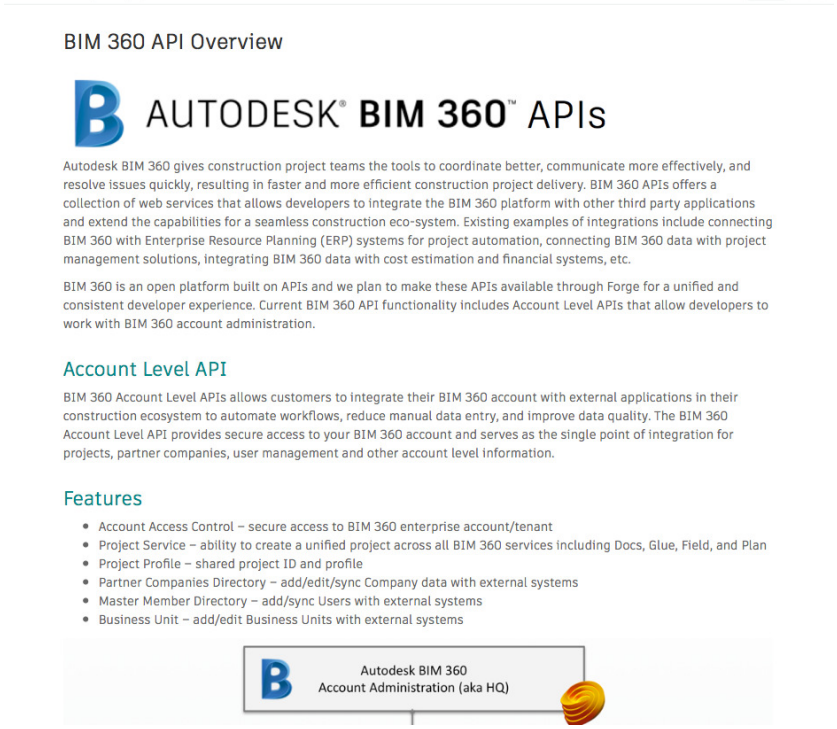
BIM 360 API | Account-level (HQ) Functionality



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.

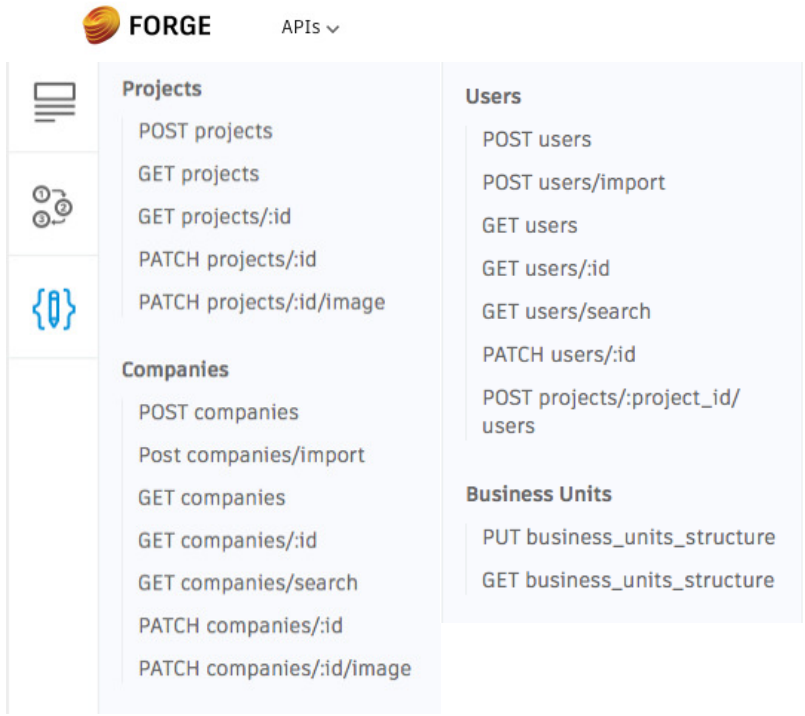
BIM 360 is an open platform built on APIs and we plan to make these APIs available through Forge for a unified and consistent developer experience. Current BIM 360 API functionality includes Account Level APIs that allow developers to work with BIM 360 account administration.

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



Visit: developer.autodesk.com/en/docs/bim360/v1

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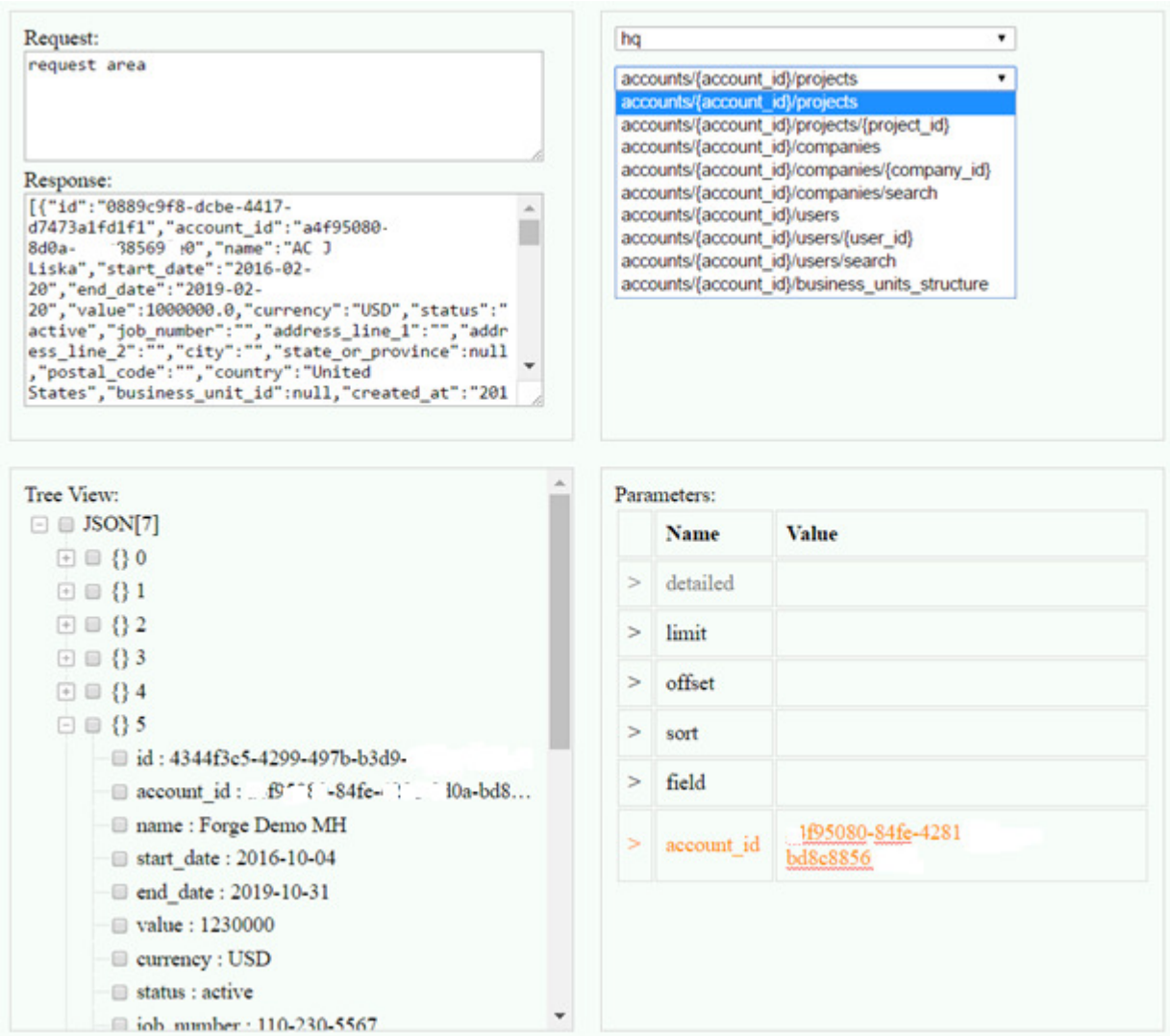
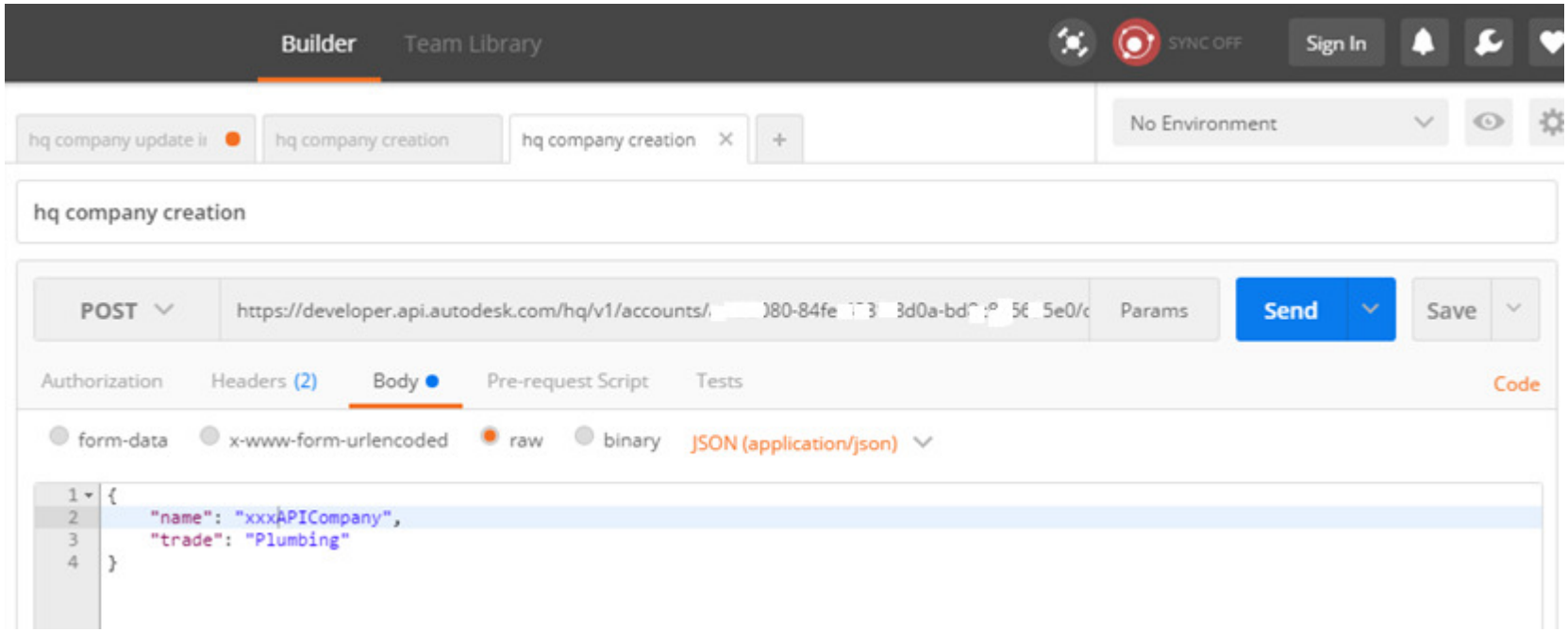
HQ API

- Grill down



Company Creation Example



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Summary

- Forge and BIM 360 API
  - Scope
  - Product Overview
- BIM 360 Account Level API
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What’s Coming Next

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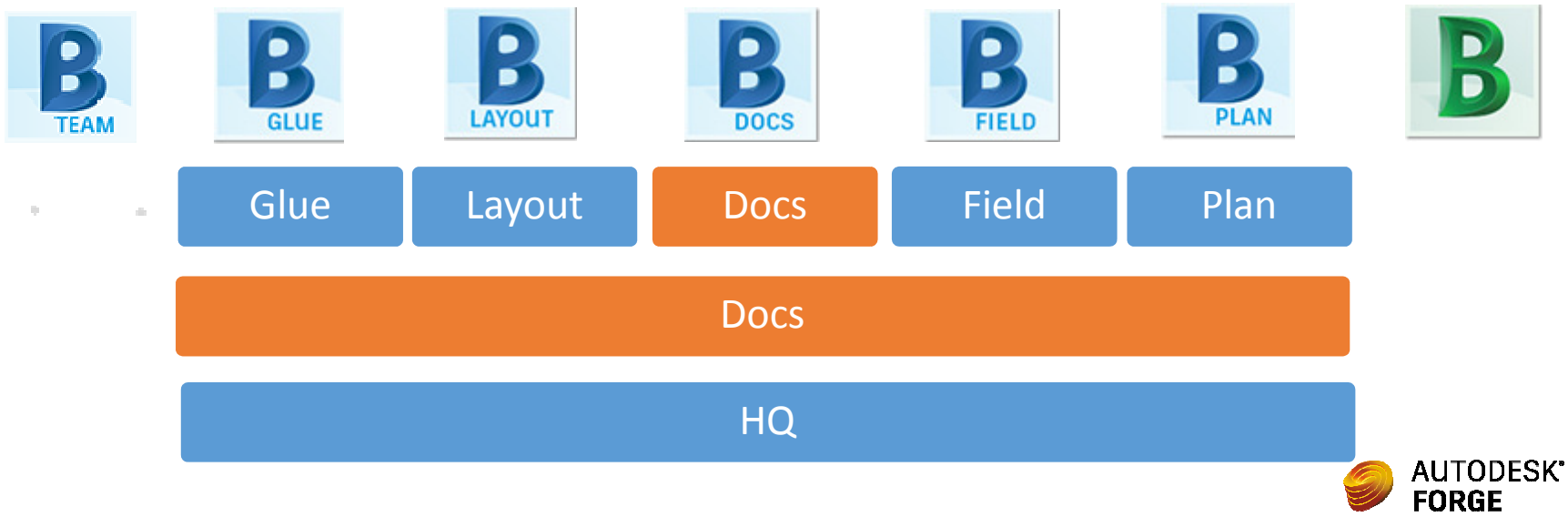
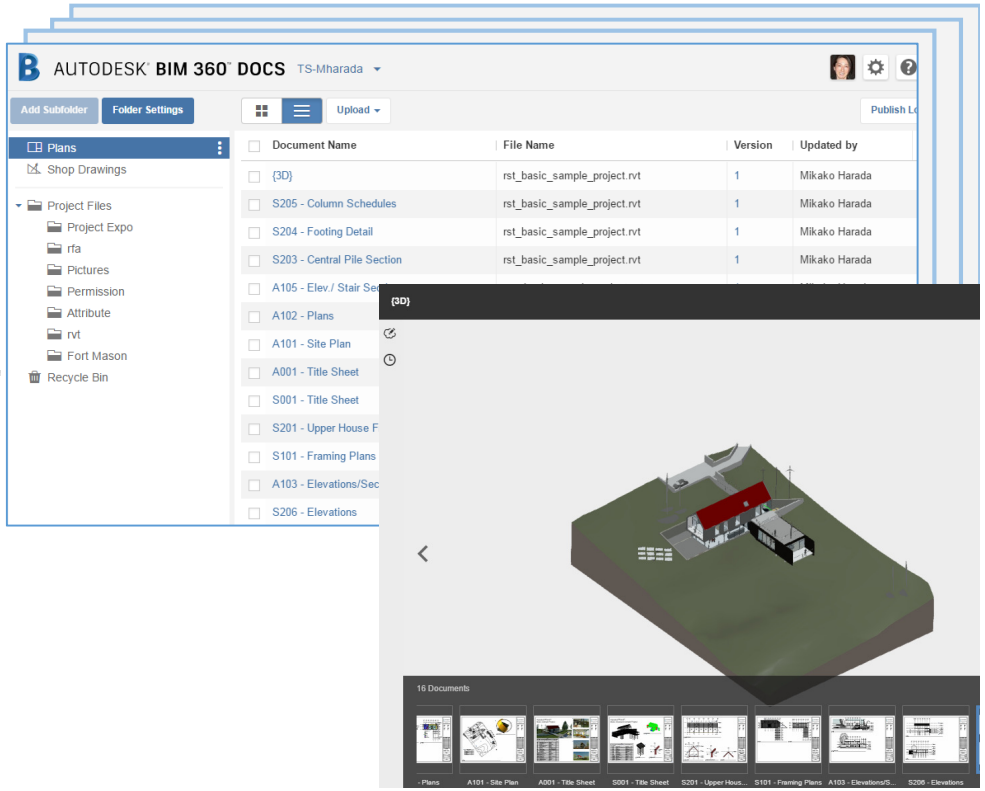
API for BIM 360 Docs

- Docs as data at center
- Seamless, unified future



BIM 360 Docs – API Overview

- Authentication (OAuth)
- BIM 360 API (Account/HQ Mgmt)
- Data Management API
- Model Derivative API
- Viewer
- Issues API



Learn more: Data Management & Related API Session Recordings

Date	Title	Focus
9/20	Forge overview, by Jim Quanci	Overview of Forge
9/22	OAuth and Data Management, by Augusto Goncalves	Platform
9/27	Model Derivative API, by Adam Nagy	Platform
9/29	Viewer API, Jaime Rosales and Philippe Leefsma	Platform

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From DevCon

- Keynotes videos
  - https://forge.autodesk.com\devcon-2016
- Presentation slides
  - www.slideshare.net/Autodesk
- Session (post) recording
  - https://www.youtube.com/watch?v=cOQEyI-EMAQ
- Get started
  - https://developer.autodesk.com

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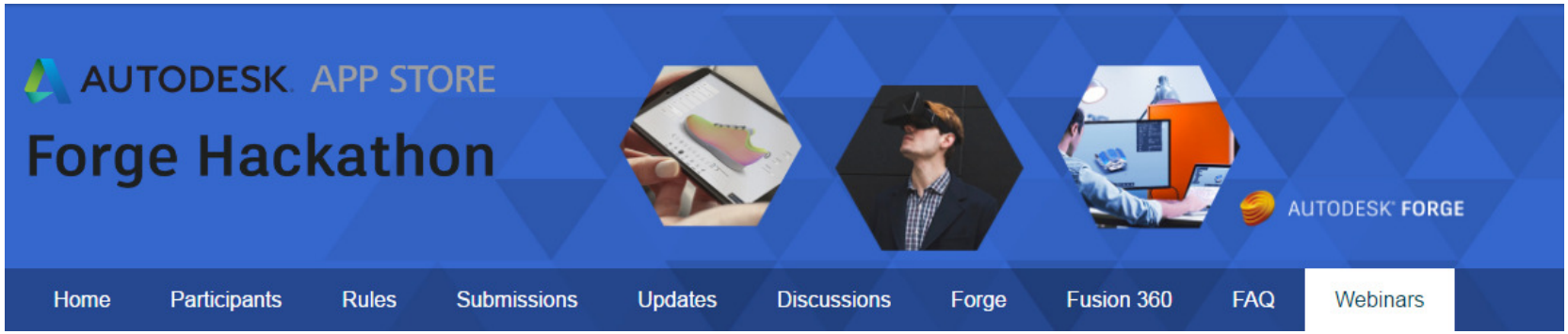
Forge Hackathon



http://autodeskforge.devpost.com/details/webinars

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Questions?

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Thank you!

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