



Forge Online

BIM 360 Assets API

小笠原 龍司
オートデスク 株式会社

Autodesk University 2020

CS469611

BIM 360 API アップデートと今後の予定



Mikako Harada

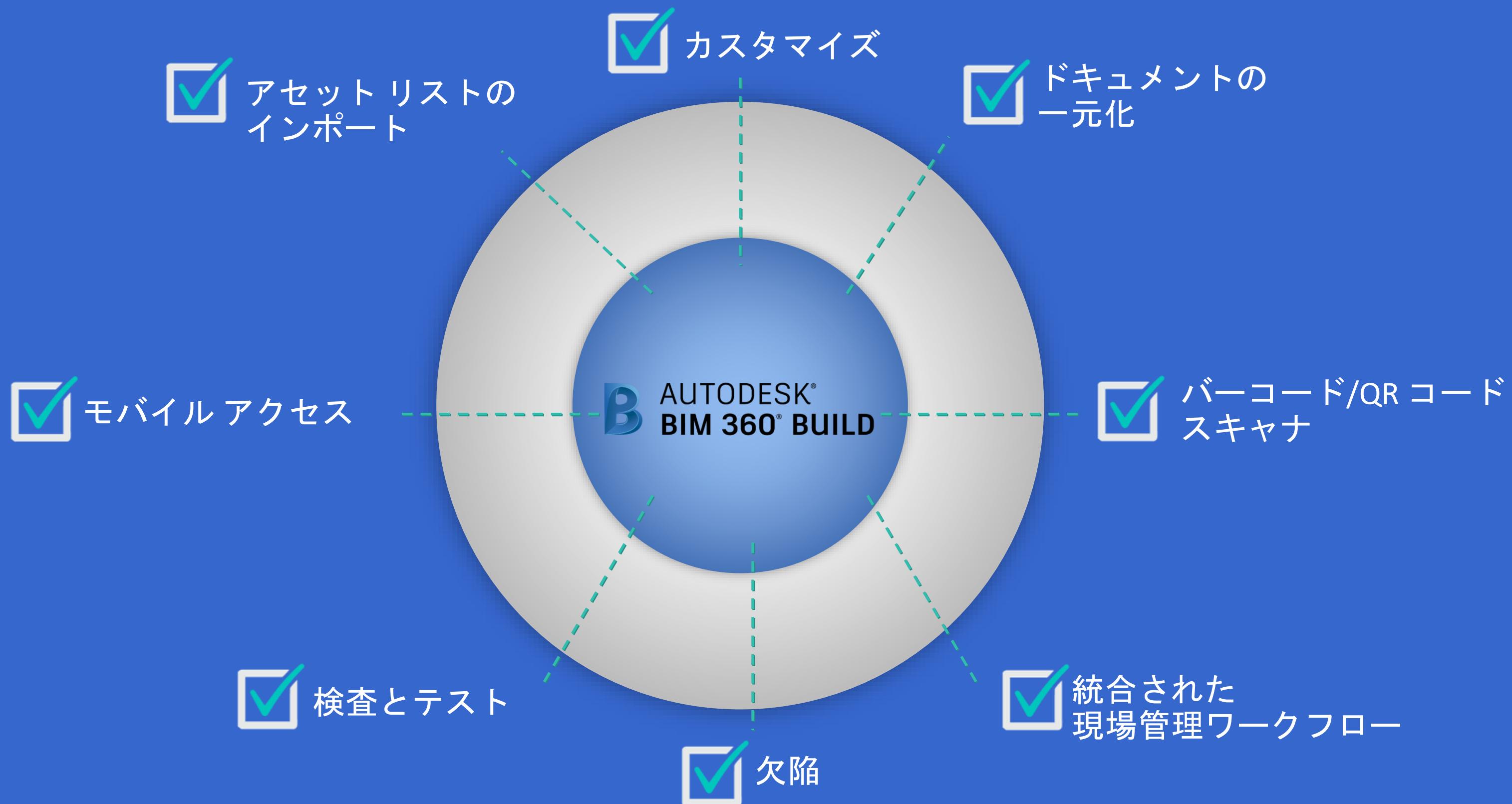
Senior Manager, AEC
Developer Technical Services
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A presentation slide for Autodesk University 2020. The title 'BIM 360 API アップデートと今後の予定' is displayed prominently in white text against a blue background. The Autodesk University logo is visible in the top left corner. The background features a stylized, abstract 3D model of a building or structure composed of blue and yellow triangles.

**BIM 360 API アップデート
と今後の予定**

原田 美佳子
AEC シニアマネージャー デベロッパ テクニカルサービス
Autodesk | @Mikako_harada

BIM 360 Assets モジュール



アセットトラッキングのワークフロー



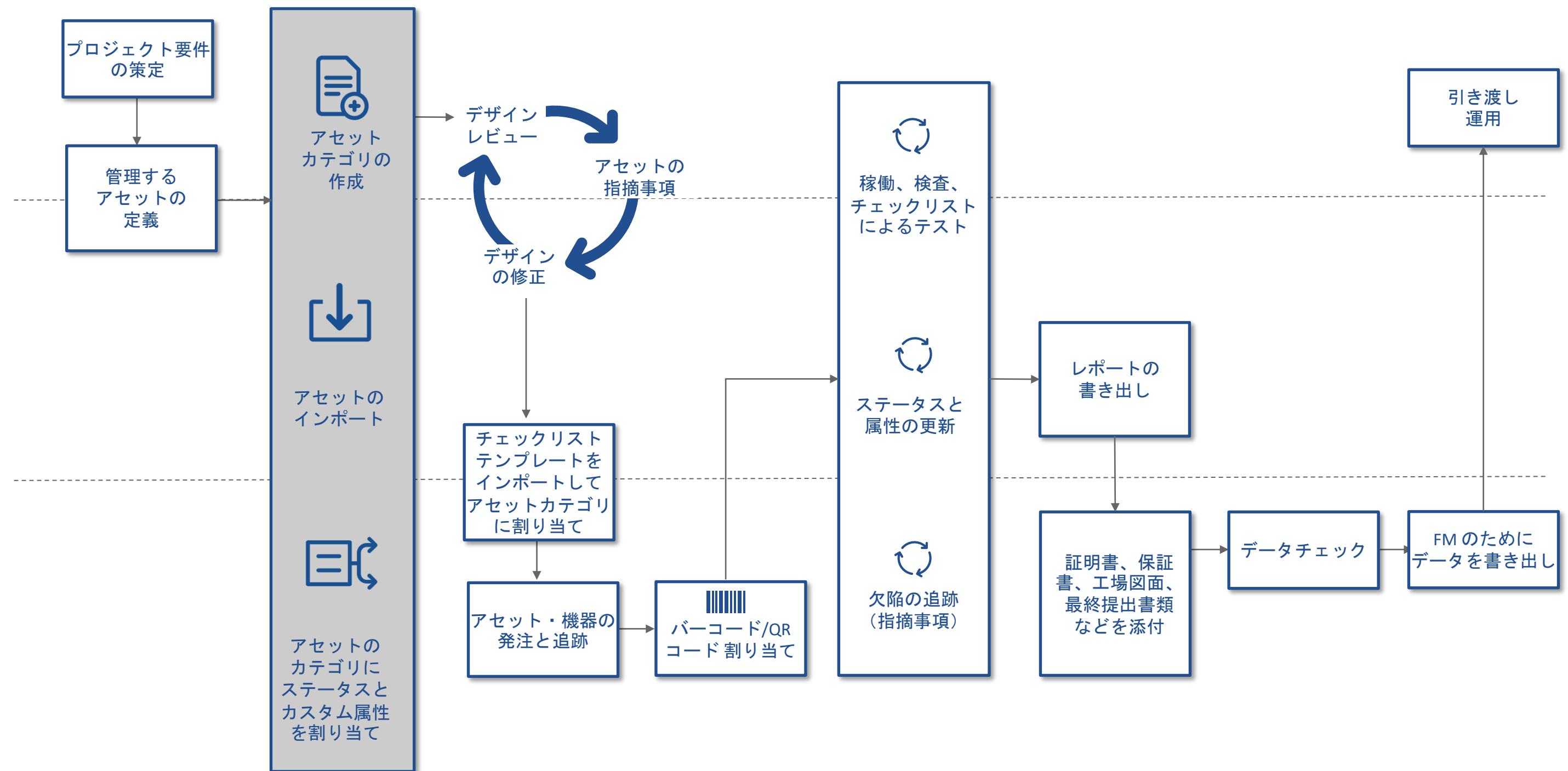
オーナー/
代理エージェント



設計者/
設計チーム



ゼネコン



アセットの設定 - ステータス、属性、カテゴリの定義

The screenshot shows the Autodesk BIM 360 Project Admin interface. The main navigation bar at the top has tabs for メンバー (Members), 会社 (Company), サービス (Services), and プロファイル (Profile). The current view is under the サービス tab.

The left sidebar lists various project management categories: 概要 (Overview), 指摘 (Findings), 通知 (Notifications), 位置 (Locations), Doc (Documents), Des (Designs), Field (Field Management), Assets (Assets), Doc (Documents), Des (Designs), Field (Field Management), and File (Files). The Assets category is currently selected.

The main content area is titled "Project Admin" and shows a sub-navigation bar with tabs for メンバー (Members), 会社 (Company), サービス (Services), and プロファイル (Profile). The Services tab is active.

The central part of the screen displays the "Status Set" configuration. It includes tabs for 権限 (Permissions), カテゴリ (Categories), カスタム属性 (Custom Attributes), and the currently selected "ステータス セット" (Status Set). A button labeled "読み込み/書き出し" (Import/Export) is also present.

A table lists the status set configurations:

名前	説明
Default	Specified
Ordered	Ordered
Delivered	Delivered

A blue callout bubble points to the "Specified" status entry, indicating it is the current selection. A large blue button labeled "新しいステータス セットを作成" (Create New Status Set) is located in the bottom right corner of the main content area.

アセット設定の書き出しと読み込み

AUTODESK® BIM 360™ | Autodesk Forge Partner Development > Forge Demo RO 2021 ▾

Forge Demo RO 2021 - プロジェクトの Assets 構成が正常に書き出されました

	A	B	C	D	E	F	G	H	I
概要	AB	Status Set	Status	Description	Color				
指摘事項	1	Default	Specified	Specified	blue				
通知	2	Default	Ordered	Ordered	yellow				
位置	3	Default	Delivered	Delivered	red				
	4	Default	Installed	Installed	green				
Document	5	Default	Pre-Start-Up	Pre-Start-Up	red				
Design C	6	Default	Start-Up	Start-Up	gray-dark				
Field Ma	7	Default	Pre-Functional Performance Tests	Pre-Functional Performance Tests	purple	+			
Assets	8	Default	Functional Performance Tests	Functional Performance Tests	yellow				
	9	Default	Acceptance	Acceptance	red				
	10	Default	Post-Acceptance	Post-Acceptance	blue				
	11								
	12								
	13								

Categories Status Sets and Statuses Custom Attributes +

追加 Autodesk BIM 360 電子メールを確実に受信するためのアドレスブック.
詳細、アクセス Autodesk BIM 360 Help.

Copyright © 2021 Autodesk, Inc. All Rights Reserved.
Email ID: 7f941051-0f66-43d2-bfe4-c7f8aa36dac3

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アセットリストのインポート

AUTODESK® BIM 360™ | Autodesk Forge Partner Development > Forge Demo RO 2021 ▾

Assets を読み込む

Name	Category	Description	Location	Status	Barcode
Required	Required	Optional	Optional	Required	Optional
COBie-standard field (Component.Name) / (AssetIdentifier)	COBie-standard field (Component.TypeName)	COBie-standard field (Component.Description)	COBie-standard field (Component.Space)	Must exactly match an equipment status on the project.	COBie-standard field (Component.BarCode)
<p>Category structure will be automatically generated if it does not exist in the project</p> <p>Separate Category levels with ></p> <p>Format example: Mechanical Mechanical > Air Handling Units (AHU's) Mechanical > Air Handling Units (AHU's) > Air Cooled Chiller</p>					
2					
REMINDER: Don't delete or rename columns - the spreadsheet will not import. It is OK to delete the rows below, including the sample data.					
Name	Category	Description	Location	Status	Barcode
AHU-999	Mechanical > Air Handling Units (AHU's) > Air Cooled Chiller	Performance Climate Changer Air Handler Floor 1		Installed	
AHU-998	Mechanical > Air Handling Units (AHU's) > Air Cooled Chiller	Performance Climate Changer Air Handler Floor 2		Functional Performance Tests	
AHU-997	Mechanical > Air Handling Units (AHU's) > Air Cooled Chiller	Performance Climate Changer Air Handler Floor 3		Acceptance	
VAV-996	Pumps > Primary Water Pump	Base Mounted		Installed	
VAV-995	Pumps > Primary Water Pump	Base Mounted		Functional Performance Tests	
10					

Assets

カテゴリを検索

Specified DuctTerminal-304 Air Terminals 600x600 - 200 Neck Ryuji Ogasawara 本日 本日

ドキュメントの一元管理

The screenshot shows the Autodesk BIM 360 interface with three overlapping windows:

- Top Window:** A modal dialog titled "ドキュメントへのリンクを追加" (Add link to document) is displayed. It lists categories and sub-categories under "アセット管理" (Asset Management) and "空調設備" (HVAC Equipment). A file named "天井用制気口カタログ.pdf" is selected, indicated by a checked checkbox.
- Middle Window:** A secondary modal window titled "Asset" is open, showing details for an asset named "DuctTerminal-301". It includes tabs for "詳細" (Details), "指摘事項" (Issues), "チェックリスト" (Checklist), and "添付ファイル" (Attached files). A button labeled "参照 ファイルを添付" (Reference Attach file) is visible.
- Bottom Window:** The main "Assets" interface window. It displays a list of assets, including "DuctTerminal-301" and "Air Terminals". The left sidebar contains filter options for "Category" and "Status".

バーコード/QRコードスキャナ

The screenshot shows the Autodesk BIM 360 Assets management interface. On the left, the 'Assets' tab is selected in the navigation bar. A search bar and a filter sidebar are visible. The main area displays a table of assets with columns for Status, Asset ID, and Category. A specific asset row, 'DuctTerminal-301', is highlighted in blue. On the right, a detailed view of this asset is shown, including its Asset ID (DuctTerminal-301), Category (Air Terminals), Description (600x600 - 250 Neck), and Barcode Number (a4d2a650-712c-4311-9076-3ed139255683-00082f45). A red box highlights the Barcode Number field. A pink button labeled 'アセットを削除' (Delete Asset) is also visible.

ステータス	Asset ID	カテゴリ
Specified	DuctTerminal-304	Air Terminals
Specified	DuctTerminal-305	Air Terminals
Specified	DuctTerminal-306	Air Terminals
Specified	DuctTerminal-307	Air Terminals
Specified	DuctTerminal-308	Air Terminals
Specified	DuctTerminal-309	Air Terminals
Specified	DuctTerminal-301	Air Terminals
Specified	DuctTerminal-302	Air Terminals
Specified	DuctTerminal-303	Air Terminals

Asset
DuctTerminal-301

SPECIFIED X

詳細 指摘事項 チェックリスト 添付ファイル

Asset ID: DuctTerminal-301

カテゴリ: Air Terminals

説明: 600x600 - 250 Neck

バーコード番号: a4d2a650-712c-4311-9076-3ed139255683-00082f45

場所: 未指定

アセットを削除

Field Management ワークフローとの統合 – 問題管理

The screenshot shows the Autodesk BIM 360 Document Management interface. A modal window titled "Document Management" is open, displaying a "指摘事項" (Problem Item) #1. The modal has tabs for "詳細" (Details), "添付ファイル" (Attachments), and "アクティビティ" (Activities). The "詳細" tab shows the following details:

- 标题: 結露防止カバーの取り付け
- 作成者: Ryuji Ogasawara
- 作成日時: 2021年1月28日
- 割り当て先: 未指定
- 期日: 未指定
- 場所: 未指定
- 場所の詳細: 未指定
- タイプ: Commissioning
- 担当者: Ryuji Ogasawara
- 根本原因: Installation

The background shows the main Document Management interface with a search bar and a table of results. The top navigation bar indicates the current location: Autodesk Forge Partner Development > Forge Demo RO 2021.

Field Management ワークフローとの統合 - 検査・テスト

The screenshot displays the Autodesk BIM 360 interface, specifically the 'Assets' section under 'Forge Demo RO 2021'. A modal window titled 'Asset' is open for the item 'DuctTerminal-301', which is categorized as 'Air Terminals' and has a status of 'Specified'. The modal includes tabs for 'SPECIFIED', 'SPECIFIED', 'SPECIFIED', 'SPECIFIED', and 'SPECIFIED'. Below the asset details, there is a 'Checklist' tab, which is currently selected, showing a single entry: '#1 試運転テスト' (Test Run Test). The main 'Assets' table lists several other duct terminals, all with the same status and category.

ステータス	Asset ID	カテゴリ
Specified	DuctTerminal-304	Air Terminals
Specified	DuctTerminal-305	Air Terminals
Specified	DuctTerminal-306	Air Terminals
Specified	DuctTerminal-307	Air Terminals
Specified	DuctTerminal-308	Air Terminals
Specified	DuctTerminal-309	Air Terminals
Specified	DuctTerminal-301	Air Terminals
Specified	DuctTerminal-302	Air Terminals

Assets API

プライベートベータ

- アセットの取得
- カスタム属性
- カテゴリ
- ステータス

パブリックベータ（近日中）

- アセットの作成
- カスタム属性、カテゴリ、ステータスの作成
- 一括インポート*1

優先順位のフィードバックを!

Asset ID	Category	Description	Barcode	Location	Serial number	Submittal	Purchase order	Purchase date
621642	Lighting Fixtur...	2'x2'(2 Lamp) - 277V	Unspecified	Tower 2 > 2 Floor > Rm 212	Unspecified	Unspecified	Unspecified	Unspecified
621643	Lighting Fixtur...							
621644	Lighting Fixtur...							
694117	Lighting Fixtur...							
694251	Lighting Fixtur...							
694268	Lighting Fixtur...							

*1) prioritize based on feedbacks

Excel エクスポート/インポート

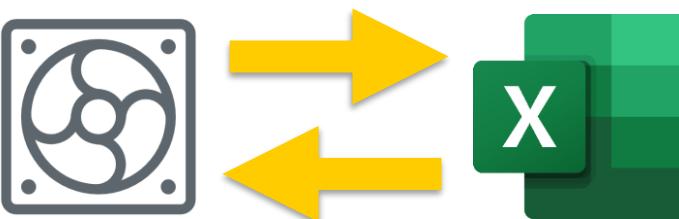
機能 : BIM 360 Assets モジュールのアセットデータを Forge アプリの画面に表示し、さらに Excel シートにエクスポートします。

Excelで編集したデータを再度、アセットにインポートします。

このサンプルはAssetsモジュールを使用した基本的な読み取り/書き込みアクセスを示すためのものです。

ソースコード : GitHub サンプル (予定)

作者 : Xiaodong Liang, Autodesk



clientAssetId	version	description	isActive	category	status	barcode	serialNumber	installationDate	installedBy	warrantyStartDate	warrantyEnd
AHU-999	3937	Performance Climate Changer Air Handler Floor 1	true	Air Cooled Chiller	Installed	barcode-12345	SN-7890456	2020-09-02	company-B	2020-09-09	2021-09-09
AHU-998	3938	Performance Climate Changer Air Handler Floor 2	true	Air Cooled Chiller	Functional Performance Tests	barcode-45789	SN-7890456	2020-09-02	company-C	2020-09-09	2021-09-09
AHU-997	3939	Performance Climate Changer Air Handler Floor 3	true	Air Cooled Chiller	Acceptance	barcode-34896	SN-674456	2020-09-02	company-R	2020-09-09	2021-09-09

	id	clientAssetId	category	category	statusId	status	description	barcode	serialNumber	specSection	purchaseOrder	purchaseDate	installedBy	installation	
1	b5d387	AHU-999	4	Air Cooler	1d66d77	Installed	Performance	CI	barcode-12	SN-7890456	mechanical	PO3678056	2020-09-09	company-B	2020-09-09
2	ba83d5	AHU-998	4	Air Cooler	86b0de1	Functional	Performance	CI	barcode-45	SN-7890456	electrical	PO3678056	2020-09-09	company-C	2020-09-09
3	ea4b7d	AHU-997	4	Air Cooler	5caa0f1	Acceptan	Performance	CI	barcode-34	SN-674456	pipe	PO3678056	2020-09-09	company-R	2020-09-09
4	366fef8	VAV-996	5	Primary V	1d66d77	Installed	Base Mounted	barcode-33	SN-490874	duct	PO3678056	2020-09-09	company-F	2020-09-09	
5	752cb6	VAV-995	5	Primary V	86b0de1	Functiona	Base Mounted	barcode-22	SN-098745	internet	PO3678056	2020-09-09	company-D	2020-09-09	
6	f8e593	AHU-767	4	Air Cooler	1d66d77	Installed	Performance	CI	barcode-99	SN34879	floor5	PO888888	2020-09-09	Company-R	2020-09-09
7	f1e9ae	PIPE-111	4	Air Cooler	86b0de1	Functiona	Performance	Climate Changer	Air Handler	Floor 2					
8	f814e6	PIPE-222	4	Air Cooler	5caa0f1	Acceptan	Performance	Climate Changer	Air Handler	Floor 3					
9	781545	MECH-876	5	Primary V	1d66d77	Installed	Base Mounted								
10	ef2898	DUCT-995	5	Primary V	86b0de1	Functional	Performance	Tests							

Assets												
Export Import Create												
Asset Tree		Details										
All Categories	Asset ID	Category	Location	Barcode	Created by	Spec section	Purchase order	Purchase date	Manufacturer	Model	Vendor	Count
▶ Air Handling Units (AHU's)	AHU-999	Air Handling U...	CH/PH Stock 1 [...]	barcode-12345	Xiaodong Liang	mechanical	P03678056	Sep 9	Schneider Elect...	Basic-MEP	Daikin	20
Air Terminal	AHU-998	Air Handling U...	... > Stock 3 [57...	barcode-45789	Xiaodong Liang	electrical	P03678056	Sep 9	ABB Electric	Basic-MEP	Daikin	20
Electrical	AHU-997	Air Handling U...	... > Workshop 4...	barcode-34896	Xiaodong Liang	pipe	P03678056	Sep 9	IBM	Basic-MEP	Daikin	20
▶ Mechanical	VAV-996	Pumps > Prima...	... > Leader 8 [5...	barcode-33556	Xiaodong Liang	duct	P03678056	Sep 9	Intel	Basic-MEP	Daikin	20
▶ Pumps	VAV-995	Pumps > Prima...	CH/PH I 2 [5737...	barcode-22390	Xiaodong Liang	internet	P03678056	Sep 9	JE	Basic-MEP	Daikin	20
▶ xiaodongtest	AHU-767	Air Handling U...	CH/PH Stock 1 [...]	barcode-999	Devtech China	floor5	P0888888	Sep 9	ABB	Mechanical	ABB	30
	PIPE-111	Air Handling U...	... > Stock 3 [57...	-	Devtech China	-	-	-	-	-	-	-
	PIPE-222	Air Handling U...	CH/PH Stock 1 [...]	-	Devtech China	-	-	-	-	-	-	Peter,Ji
	MECH-876	Pumps > Prima...	... > Leader 8 [5...	-	Devtech China	-	-	-	-	-	-	-
	DUCT-995	Pumps > Prima...	... > Workshop 4...	-	Devtech China	-	-	-	-	-	-	-

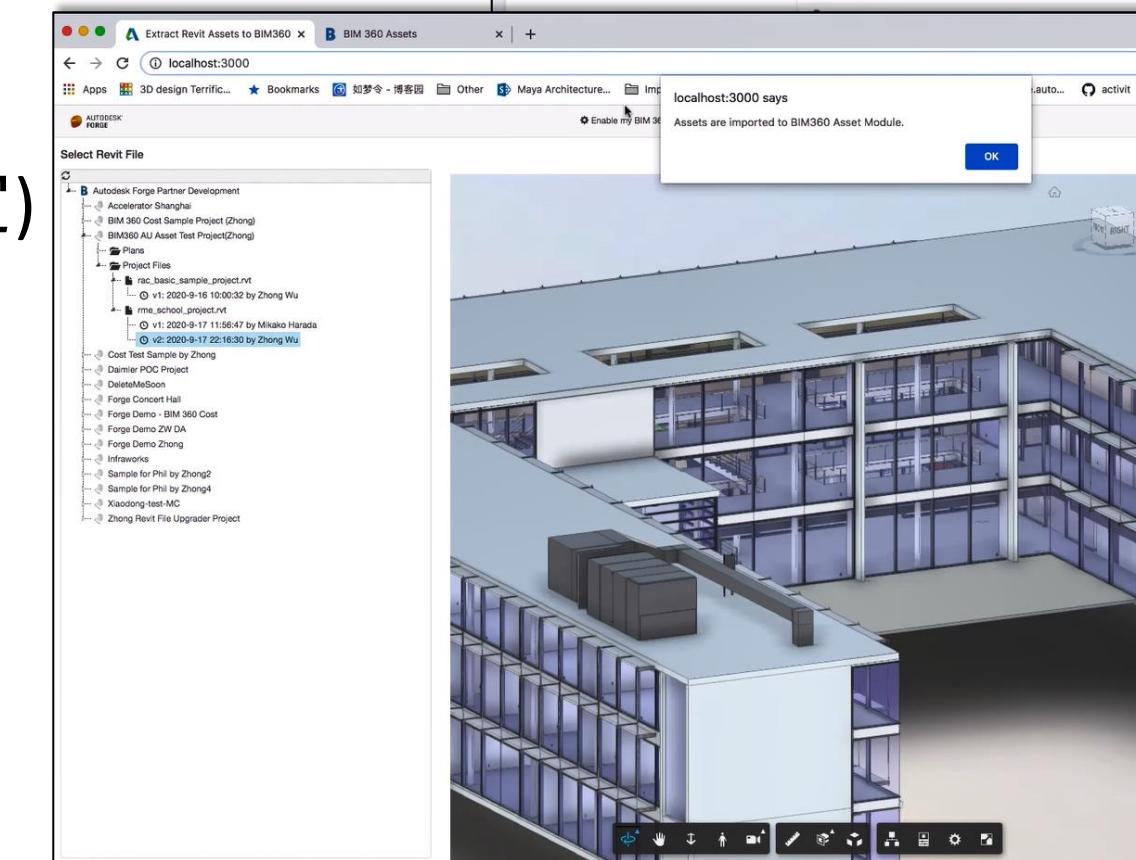
設計モデルからアセットデータを設定

機能 : Design Automation for Revit を使用して、BIM 360 Docs に保存されたモデルからアセットを抽出し、Assets モジュールにインポートします。オプションで、インポートする前にアセットをフィルタリング/検証します。

※ Revit 要素の UniqueID をカスタム属性として保存し、アセットと Revit の要素との関連付けを維持します。

ソースコード : GitHub サンプル (予定)

作者 : Zhong Wu, Autodesk



The screenshot shows the Autodesk BIM 360 Assets module. At the top, there's a navigation bar with links like "Autodesk Forge Partner Development" and "BIM360 AU Asset Test Project(Zhong)". Below the navigation, there's a table titled "Assets" with columns for "Status", "Asset ID", "Category", "Location", "Manufacturer", and "Model". The table lists several "DuctTerminal" assets under the "Air Terminals" category. On the left, there's a sidebar titled "Asset Tree" showing a tree structure of categories like "All Categories" and "Air Terminals". On the right, there's a "Details" panel showing a 3D model of a duct terminal and its properties. At the bottom, there's a "Create to BIM360" button.

Extract Revit Assets to BIM360 X B BIM 360 Assets x +

localhost:3000

Apps 3D design Terrific... Bookmarks 如梦令 - 博客园 Other Maya Architecture... Imported From Fir... 我的书签 ForgeARVR-Unity... https://forge.auto... activit (9) Geoffrey Dunn... Sign On 5DnBIM-About Home - Employee... >

AUTODESK FORGE Enable my BIM 360 Account Configure Sign Out Zhong Wu

Select Revit File

C Autodesk Forge Partner Development Accelerator Shanghai BIM 360 Cost Sample Project (Zhong) BIM360 AU Asset Test Project(Zhong) Plans Project Files rac_basic_sample_project.rvt v1: 2020-9-16 10:00:32 by Zhong Wu rme_school_project.rvt v1: 2020-9-17 11:56:47 by Mikako Harada v2: 2020-9-17 22:16:30 by Zhong Wu Cost Test Sample by Zhong Daimler POC Project DeleteMeSoon Forge Concert Hall Forge Demo - BIM 360 Cost Forge Demo ZW DA Forge Demo Zhong Infraworks Sample for Phil by Zhong2 Sample for Phil by Zhong4 Xiaodong-test-MC Zhong Revit File Upgrader Project

Model Viewer

Extract Assets from the model

Asset Info List

Show 10 entries Search:

Assert ID	Category	Status	Manufacturer	Model
No data available in table				

Showing 0 to 0 of 0 entries Previous Next

Create to BIM360

Model Viewer controls: zoom in/out, rotate, pan, and other viewing options.

Viewerでアセットを表示

機能：モデルビューアでアセットデータを表示します。レベルと部屋でアセットをフィルタリングできます。

※ Revit 要素の Unique IDをカスタム属性として保存し、アセットとRevit の要素との関連付けを維持します。

ソースコード：GitHub サンプル(予定)

作者：Eason Kang, Autodesk



The screenshot displays the Autodesk Viewer interface with several panels:

- Assets Panel:** A table showing asset data with columns: Asset ID, Category, Location, Manufacturer, Model, and Status. The data includes multiple entries for Air Terminals > M_Exhaust Grill.
- Space Filter Panel:** A tree-based filter for levels and rooms. In the first screenshot, 'Level 2' is selected. In the second screenshot, 'WC D I' is selected under 'Level 2'.
- 3D View:** A 3D architectural model of a building interior, showing rooms and furniture.
- Asset Detail Panel:** A detailed view for a specific asset (Asset ID 521858). It shows fields like Built In, Created At, Updated At, Is Active, Version, Category, Status, Description, Location, Barcode, and Serial Number. It also includes a compass rose and a small image of the asset.

Microsoft Edge File Edit View History Favorites Tools Profiles Tab Window Help

Autodesk Forge - BIM 360 Assets BIM 360 Assets +

Enterprise Daily Work BIM360 Forge Revit AU

<https://assets.b360.autodesk.com/projects/f6698202-e0a1-40f6-af11-e81d407bd366/assets?preview=ca5cf41e-38ed-4b0b-b28b-848c3b926a4f>

AUTODESK BIM 360 Autodesk ADN Taiwan > Assets Demo

Assets

ASSETS

Asset 521858

SPECIFIED

Asset ID	Category	Location
521858	Air Terminals > M_Exhaust Grill > 600 x 600 Face 300 x 30...	Level 2 > WC D I
442138	Air Terminals > M_Exhaust Grill > 600 x 600 Face 300 x 30...	Level 2 > WC D II
521663	Air Terminals > M_Exhaust Grill > 600 x 600 Face 300 x 30...	Level 2 > WC H I
442050	Air Terminals > M_Exhaust Grill > 600 x 600 Face 300 x 30...	Level 2 > WC H II
522330	Air Terminals > M_Exhaust Grill > 600 x 600 Face 300 x 30...	Level 3 > WC D I
522312	Air Terminals > M_Exhaust Grill > 600 x 600 Face 300 x 30...	Level 3 > WC H I
431155	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > Admin
430655	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > Archive
431276	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > Cleaning
430663	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > Copy
431304	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > EDP I
431365	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > EDP I
430875	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > EDP II
430885	Air Terminals > M_Return Diffuser > 600 x 600 Face 300 x ...	Level 2 > EDP II

DETAILS ISSUES CHECKLISTS ATTACHMENTS

Asset ID: 521858

Category: Air Terminals > ... > 600 x 600 Face 300 x 300 Connection

Description: Unspecified

Barcode: Unspecified

Location: Level 2 > WC D I

Serial number: Unspecified

Submittal: Unspecified

Purchase order: Unspecified

Purchase date: Unspecified

Installation date: Unspecified

Warranty start date: Unspecified

Warranty end date: Unspecified

Expected life (years): Unspecified

Installed by: Unspecified

Spec section: Unspecified

Manufacturer: Unspecified

Model: Unspecified

External Id: f056ea9d-8fba-434e-80ce-46b4df0ea740-0007f682

Assets API デベロッパリソース



- ドキュメンテーション
- GitHubのコードサンプル
- Postman コレクション

The screenshot shows the Autodesk Forge API Reference documentation for the Assets API. The left sidebar lists various API endpoints under categories like HTTP Specification, Asset-Statuses, Categories, Custom-Attributes, and Status-Step-Sets. The main content area details the `GET assets` endpoint, which retrieves paginated assets. It includes sections for Resource Information, Method and URI (`GET https://developer.api.autodesk.com/bim360/assets/v1/projects/{projectId}/assets`), Authentication Context (user context required), Required OAuth Scopes (`data:read`), Data Format (JSON), Request Headers, and Request Body.

Get all Assets paginated

`GET assets`

Resource Information

Method and URI `GET https://developer.api.autodesk.com/bim360/assets/v1/projects/{projectId}/assets`

Authentication Context user context required

Required OAuth Scopes `data:read`

Data Format JSON

Request Headers



Forge Online

BIM 360 Relationships API

小笠原 龍司
オートデスク 株式会社

Autodesk University 2020

CS469611

BIM 360 API アップデートと今後の予定



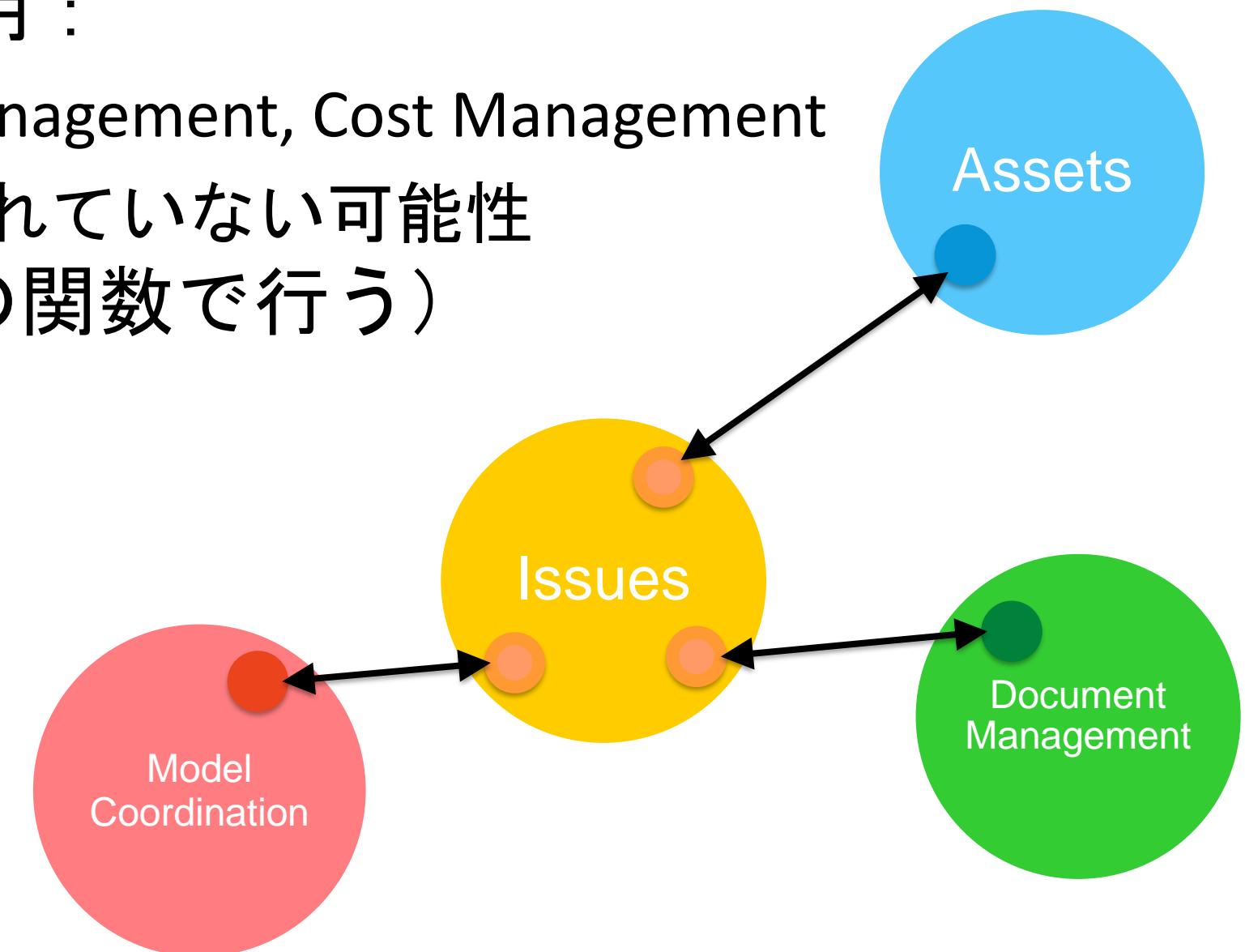
Mikako Harada

Senior Manager, AEC
Developer Technical Services
Autodesk

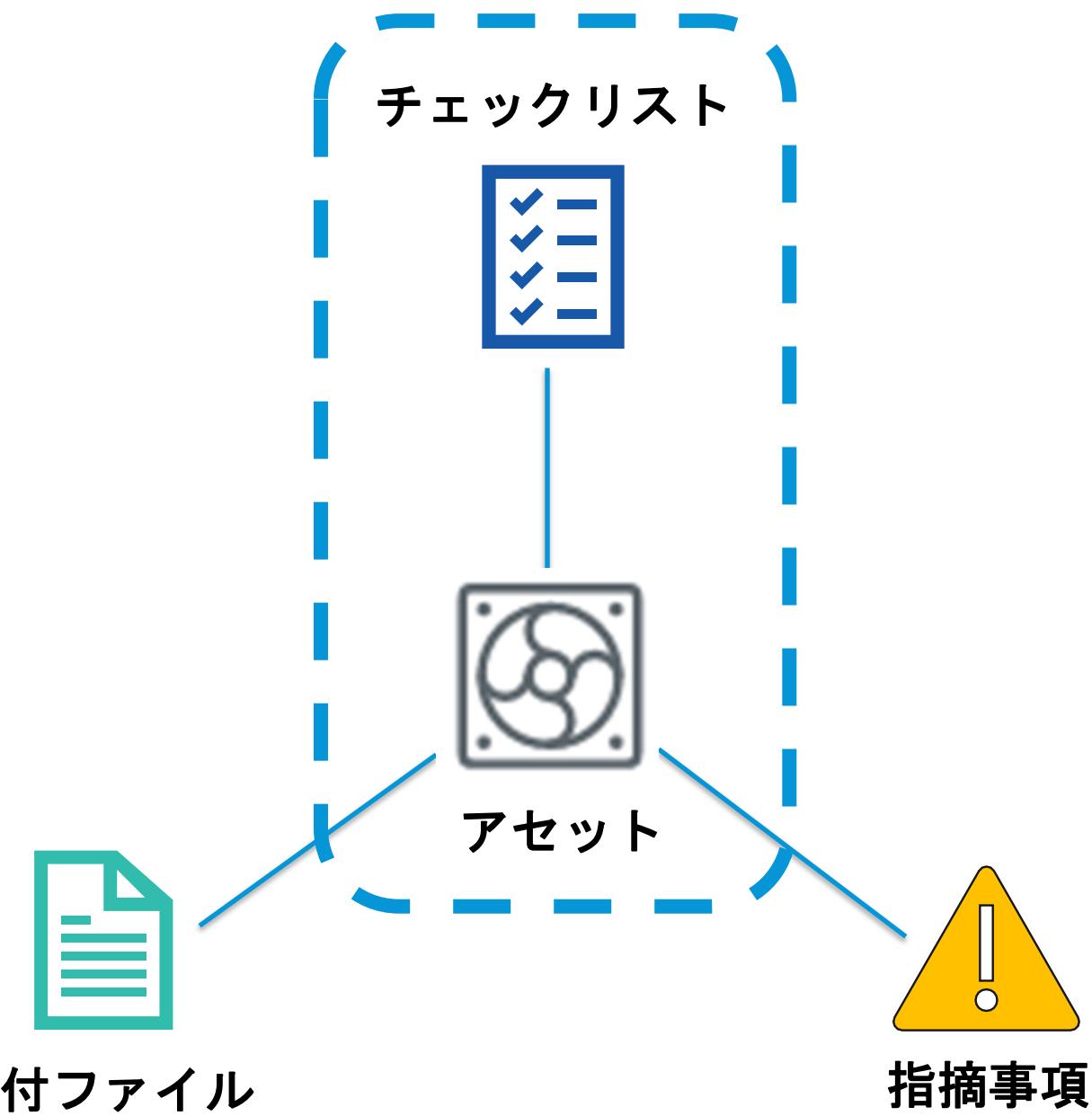
A presentation slide for Autodesk University 2020. The title 'BIM 360 API アップデートと今後の予定' is displayed in large white text. Below the title, the speaker's name '原田 美佳子' and title 'AEC シニアマネージャー デベロッパ テクニカルサービス' are listed, along with her Autodesk handle '@Mikako_harada'. The background features a blue gradient with abstract geometric shapes resembling a wireframe mesh or a stylized building facade.

Relationships API

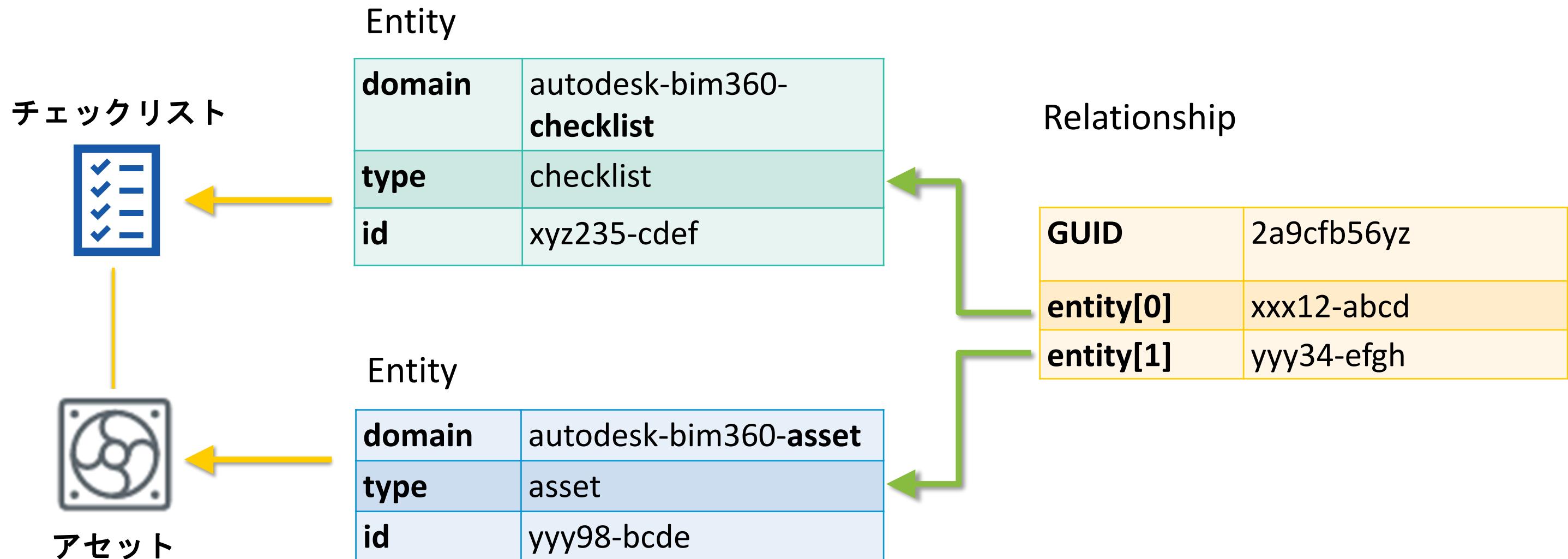
- 異なる機能コンポーネント（ドメイン）に存在するアイテム
 - （エンティティ）間のリンクを表現
- BIM 360の様々なモジュールで使用：
 - Model Coordination, Assets, Field Management, Cost Management
 - 古くから存在する機能には使用されていない可能性
- 読み取り専用（作成はドメインの関数で行う）
- 既にリリース済み



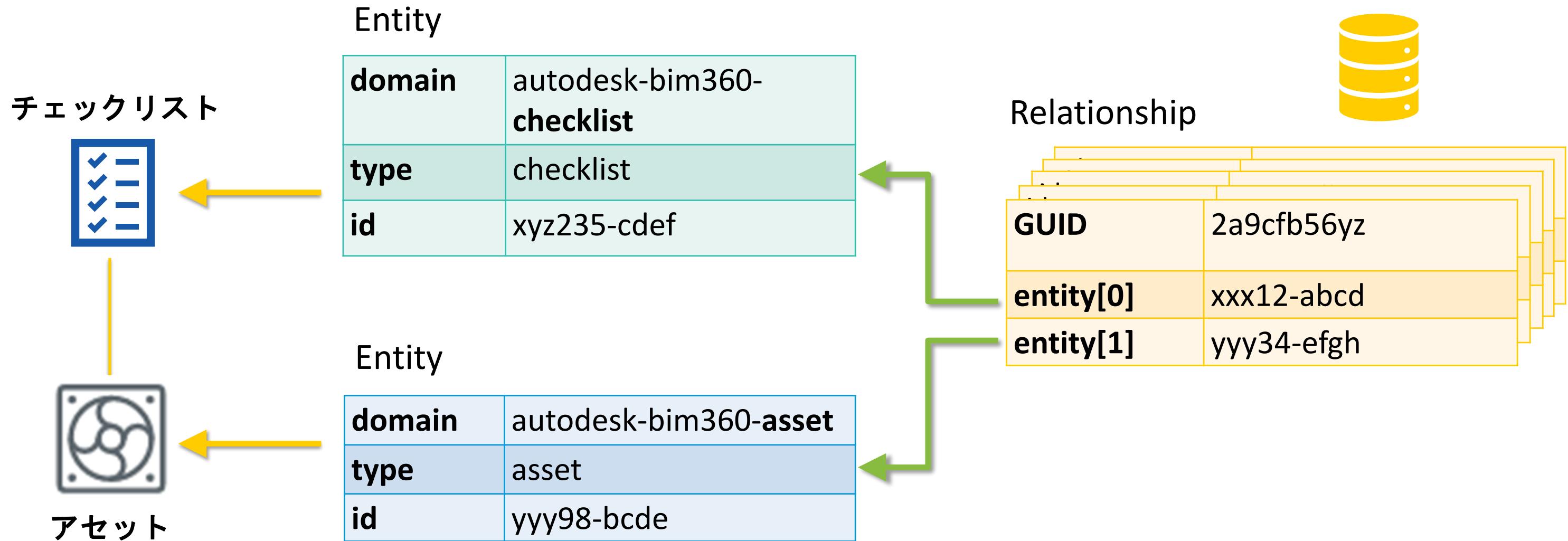
Relationships API



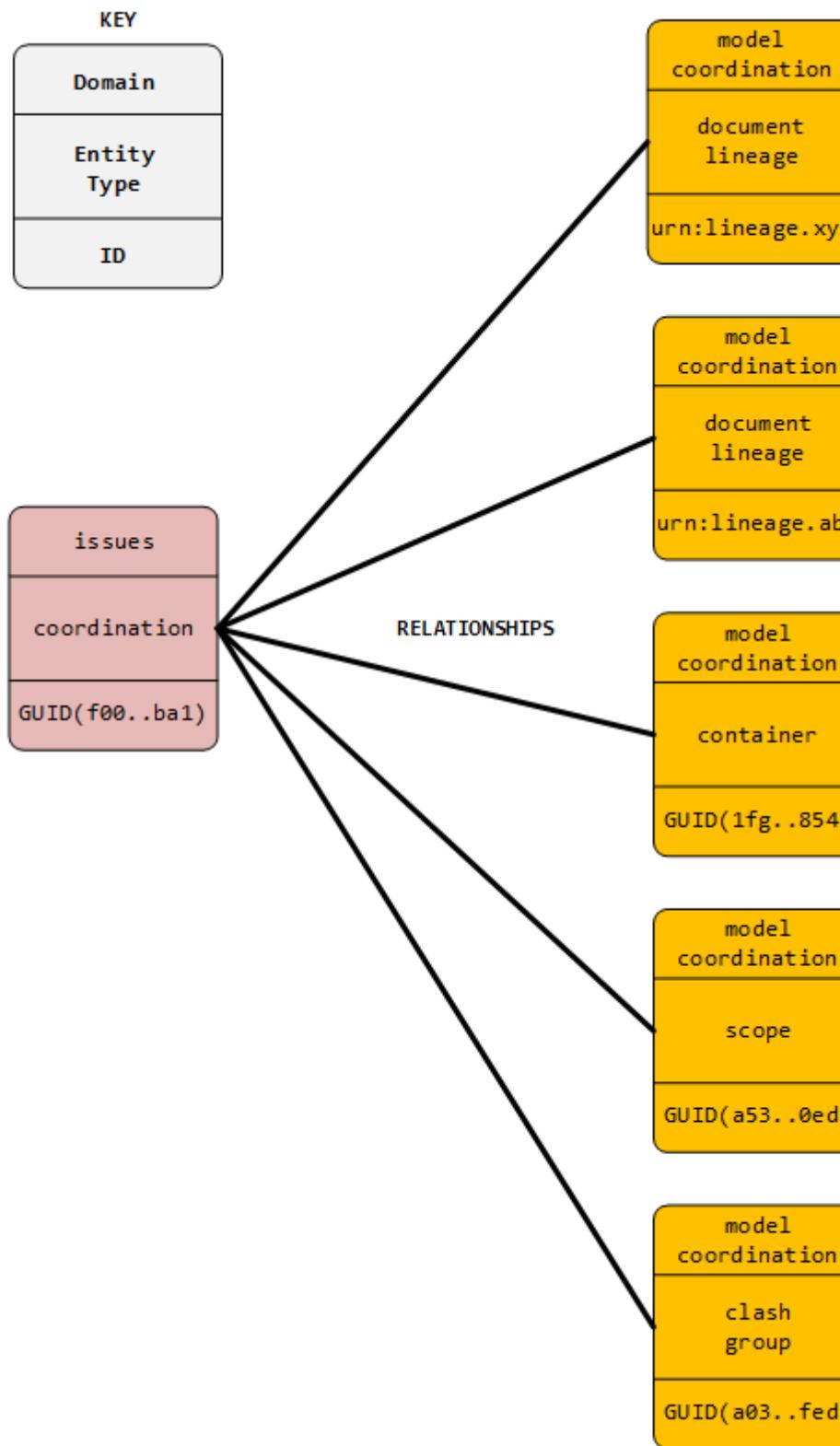
Relationships API



Relationships API



Relationships API



Relationship ID	Domain Entity	Domain Entity
d9018d05-f23e-478f-8348-c5840785400a	issues-coordination-GUID(f00..ba1)	modelcoordination-documentlineage-urn:lineage.xyz
bbc1708e-8511-4d38-b80c-1a05f392bb6a	issues-coordination-GUID(f00..ba1)	modelcoordination-documentlineage-urn:lineage.abc
bf403b6f-075a-4160-8ee0-dfb7b172b330	issues-coordination-GUID(f00..ba1)	modelcoordination-container-GUID(1fg..854)
5908fd9b-4f0a-49bd-963a-8955f09ccfeb	issues-coordination-GUID(f00..ba1)	modelcoordination-scope-GUID(a53..0ed)
095b1f99-1f08-4149-99aa-c03cf479dcc5	issues-coordination-GUID(f00..ba1)	modelcoordination-clashgroup-GUID(a03..fed)

Relationships API

カテゴリ	エンドポイント
検索	GET relationships/:relationshipId
	POST relationships:batch
	GET relationships:search
	POST relationships:intersect
同期	POST relationships:sync
	POST relationships:syncStatus

Relationships API

Category	Endpoints
Search	GET relationships/:relationshipId
	POST relationships:batch
Sync	GET relationships:search
	POST relationships:intersect
Sync	POST relationships:sync
	POST relationships:syncStatus

Relationship を id から取得

```

JSON
  [
    {
      "id": "79835e9e-ab4c-4c43-b480-a7ba54196e6e",
      "createdOn": "2020-10-03T20:53:14.268952+00:00",
      "isReadOnly": true,
      "isService": true,
      "isDeleted": false
    },
    [
      {
        "0": {
          "createdOn": "2020-10-03T20:53:14.175205+00:00",
          "domain": "autodesk-bim360-checklist",
          "type": "checklist",
          "id": "569859"
        },
        "1": {
          "createdOn": "2020-10-03T20:49:21.651508+00:00",
          "domain": "autodesk-bim360-asset",
          "type": "asset",
          "id": "f972c095-d6b2-4fd3-ae1c-70ef6061c8af"
        }
      ]
    ]
  ]

```

Relationships API

カテゴリ	エンドポイント
検索	GET relationships/:relationshipId
	POST relationships:batch
	GET relationships:search
	POST relationships:intersect
同期	POST relationships:sync
	POST relationships:syncStatus

与えられた条件 (domain, type, ids, 日時)に一致するRelationshipを検索。

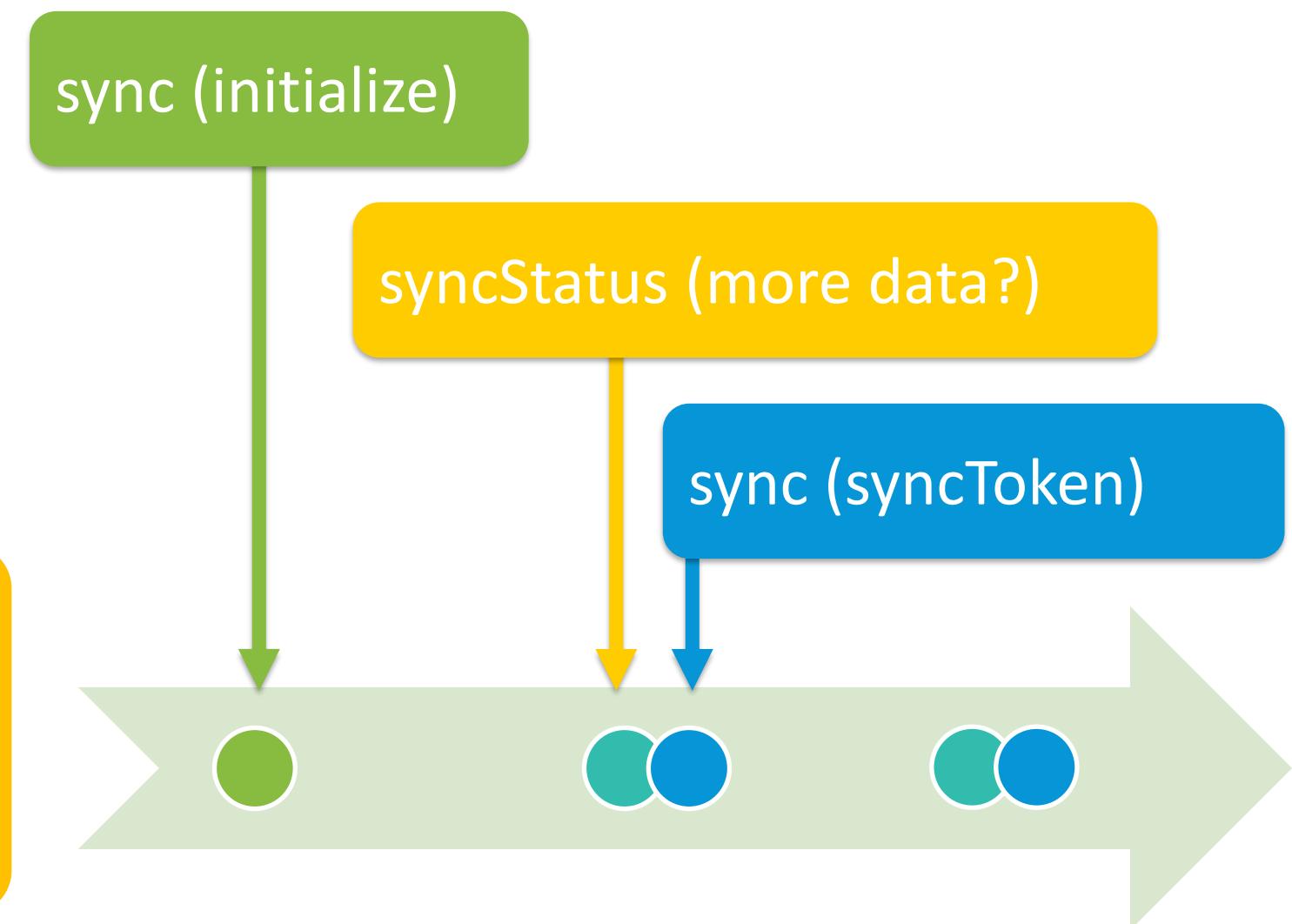
“アセットとチェックリスト間の
リレーションシップを取得してください”

GET relationships:/**search?**
domain=autodesk-bim360-asset
&**withDomain**=autodesk-bim360-
checklist

Relationships API

カテゴリ	エンドポイント
検索	GET relationships/:relationshipId
	POST relationships:batch
	GET relationships:search
	POST relationships:intersect
同期	POST relationships:sync
	POST relationships:syncStatus

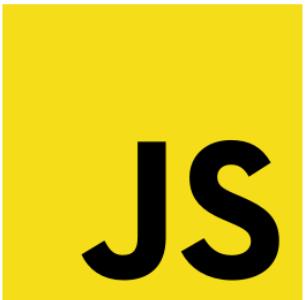
Relationshipデータを外部で保存しているデータと同期する際に使用。



Relationships API デベロッパリソース

Relationship API SDK

- [.NET Core nuget パッケージ](#)
- [JavaScript / Node.js](#)



Relationships API デベロッパリソース

ドキュメンテーション

The screenshot shows the Autodesk Forge BIM 360 API v1 documentation for the Relationships section. The left sidebar contains a navigation menu with the following items:

- BIM 360 API v1
- Developer's Guide
 - Introduction
 - API Basics
 - Field Guide
 - Account Admin
 - Model Coordination
 - Cost Management (beta)
 - Relationships
 - Parameters
 - Rate Limits and Quotas
 - Partner Program
- Step-by-Step Tutorials
- API Reference

The main content area has a title "Relationships" and a sub-section titled "Containers vs. BIM 360 Projects". The text describes how BIM 360 Data Services use "Containers" as a primary data partition for service data associated with a specific Project and Account. It explains that a container is created when a new BIM 360 Project is created, using the BIM 360 Docs Project ID as the container GUID. Below this, there is a section titled "Domain Entities" which defines the concept and provides a list of attributes for Domain Entities.

Relationships

Containers vs. BIM 360 Projects

BIM 360 Data Services e.g. the Relationship Service use “Containers” as a primary data partition for all the service data associated with a specific Project and or Account. In the case of the Relationships Service, a container is created when a new BIM 360 Project is created. The application uses the BIM 360 Docs Project ID as the container GUID for the Relationships container.

Domain Entities

The Relationship Service is built on the concept of *Domain Entities*. Put simply, a Domain Entity is something which can be identified in one of the applications which comprise BIM 360 today. Examples of Domain Entities include Issues, Files, Meetings, Check-lists etc.. Each of these things (or Entities) has three distinct attributes :-

1. They belong to a *Domain* e.g. Budgets belong to the BIM 360 Cost domain (Application).
2. They have an *Entity Type* which allows them to be distinguished from other types of entity in the Domain, e.g. a Budget is distinct from a Contract, however both these entity types belong to the Cost domain.



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