Live Coaching
FOR MANUFACTURING

Presenter Name
Presenter Title | @socialmedia
Accelerators help you unlock the potential of Autodesk® technology.

**Accelerators**
Easy-to-access services built on Autodesk best-practices

**Capabilities**
Your technology, workflow, data, and organizational abilities

**Outcomes**
Measurable goals your business wants to achieve
How do Adoption Accelerators work?

**Discover Session**
Meet with your CSM and a subject matter expert to contextualize the content for your team.

**Coaching Session**
Sessions are led by an Autodesk expert, introducing users to new technology or demonstrating workflows with Q&A.

**Materials & Feedback**
We’ll provide the session recording and presentation materials, and participants are encouraged to provide feedback on the Accelerator through a survey.

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<td>(30-60 minutes)</td>
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Get familiar with the latest technologies & features

**Introduction to**
Get familiar with the latest technologies & features

**Examples**
- Introduction to: BIM 360 Design
- Introduction to: Forge (General)
- Introduction to: Parameters in Revit

Learn key workflows that solve specific challenges

**How to**
Learn key workflows that solve specific challenges

**Examples**
- How to: Set up Revit for AEC Projects
- How to: Create hi-end visualizations using Arnold
- How to: Conduct Upfront CFD Fundamentals
If your company has an Enterprise plan with Autodesk, you can schedule Accelerators with your Autodesk Customer Success Manager (CSM).

If you are unsure of how to contact your Customer Success Manager, submit a request and we will connect you.

Find Accelerators for more industries and learn more about Autodesk Customer Success.
Accelerator Details
Coaching Session

**Introduction to**
- Forge (General)
- Forge (Manufacturing)
- Digital factory design
- Design validation with Moldflow Adviser
- Assemblies in Inventor
- Generative Design in Fusion
- Fusion simulation
- Vault for DR/BC plans
- Sub-D modeling in Alias
- Hybrid modeling with Nurbs and SubD
- Navisworks (Manufacturing)
- AutoCAD Mechanical

**How to**
- Set up a project in BIM 360 Docs
- Create issues and manage documents in BIM 360 Docs
- Share data between Vault and BIM 360 or Fusion
- Analyze geometries with Inventor Nastran
- Configure an SQL environment for Vault
- Build a digital product catalog in Forge
- Work with Inventor models in Revit and BIM 360
- Integrate multiple assemblies into a machine design
- Transition from files to items in Vault
- Plan for a Vault migration
- Present Inventor data for design reviews
- Manage project assets (Issues & Checklists)
- Create high-end visualizations using Arnold
- Review models and identify coordination issues with Navisworks
- Review models with visualized walkthroughs
Introduction to: Forge (General)

Get familiar with functionalities of Autodesk Forge™, what tools are required to use it, and how to set up a team for application development.

**Topics**
- Understanding APIs
- Forge Overview
  - Common applications of Forge
  - The Forge business architecture
  - Adding Forge to an EBA
- Building online workflows and experiences around your design data
- Practical Forge use cases
- Setting up a team
- Where to get development and support resources
- The functionalities and pricing of each component of Forge

**Who it’s for**
- Project Managers
- BIM Managers
- BIM Leads
- Project Engineers

**Prerequisites**
- Enterprise Success Program
- Attendees have access to Forge

**Capabilities**
- Cloud-based Process Automation
- Data Enrichment
- Management and Delivery
Introduction to: Forge (Manufacturing)

Get familiar with Autodesk Forge™ APIs in the manufacturing space and how to transition automation from desktop CAD to the cloud.

Topics
- Getting started with Forge
- Forge APIs
  - Cloud credit arrangements for Forge APIs
- Governing and administering Forge
- Design Automation for Autodesk Inventor®
- Design Automation for AutoCAD®
- The skillsets and resources need to develop a Forge application
- Web debugging tools

Who it’s for
- Mechanical Engineer
- CAD Manager
- IT Manager
- Manufacturing Director

Prerequisites
- Enterprise Business Agreement (EBA)
- Access to Forge

Capabilities
- Design Automation
Introduction to: Digital factory design

Get familiar with digital factory design workflows using Autodesk® AutoCAD®, Inventor®, and Vault.

Topics

- AutoCAD
  - Creating layouts
  - Updating layouts
  - Placing assets
  - Integrating with Vault and Inventor
- Inventor
  - Creating and updating assets
  - Creating and viewing layouts
  - Integrating with Vault and AutoCAD
- Vault
  - Storage of Asset Library

Who it’s for

- Anyone involved in laying out new factories or maintaining or modifying existing factories

Prerequisites

- Enterprise Success Program
- Attendees understand how factories are configured, updated, and managed
- AutoCAD Architecture and/or Inventor experience is helpful, but not required

Capabilities

- Factory Layouts and Planning
- Production Simulation and Analysis
Introduction to: Design validation with Moldflow Adviser

Get familiar with validation workflows using Moldflow® Adviser to determine your ability to manufacture a part in the design phase.

Topics

- Overview of design concepts and manufacturability
  - Criteria for manufacturability
  - How manufacturability can influence design decisions
  - The pros and cons of custom solutions
  - Designing for manufacturability
- Design and manufacturability conflicts
  - Conflicts of expertise
  - Bottleneck workloads
  - Avoiding resource waste
- How Moldflow Adviser can be used to resolve conflicts

Who it’s for

- Project Managers
- Designers
- Tool Makers

Prerequisites

- Enterprise Success Program
- Attendees have a general knowledge of design tools

Capabilities

- Production Simulation and Analysis
- Product Simulation
Introduction to: Assemblies in Inventor

Get familiar with the features and workflows for large assemblies in Autodesk Inventor.

Topics
- Establishing your start
- Origin Points in sketches
- Origin Planes
- Constraints

Who it’s for
- Mechanical Engineers
- Mechanical Designers
- Machine Designers
- CAD Designers

Prerequisites
- Enterprise Success Program
- Attendees should have basic knowledge of Inventor

Capabilities
- Model-Based Engineering
- Machine Design
- Civil Structure Model Authoring
Learn how to create and navigate a federated model, control visibility, create viewpoints and mark-ups, and run clash detection between trades using Navisworks®.

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Capabilities

- Coordination
- Design Coordination and Review
Introduction to: Generative Design in Fusion

Get familiar with generative design for weight reduction and component consolidation in Fusion 360®.

Topics
- Manufacturability
- Light-weighting
- Preserve regions
- Obstacle regions
- Loads
- Materials
- Constraints
- Manufacturing methods
- Design exploration

Who it’s for
- Project Managers
- Designers
- Tool Makers
- Engineers

Prerequisites
- Enterprise Success Program
- Attendees have a general knowledge of design tools

Capabilities
- Product Generative Design
How to: Share data between Vault and BIM 360 or Fusion

Learn how to securely sync selective data to extended project teams with BIM 360® and Fusion™ Team.

Topics

- Sharing visual representations and getting feedback with Autodesk Viewer
- Delivering files to customers and suppliers with Autodesk Drive
- Exchanging select data with external collaborators automatically
  - External collaboration beyond the firewall
  - The external collaboration workflow
- Collaboration on designs and project sync
- Accessing design data in Autodesk Drive
- How to deploy and use Autodesk Desktop Connector
- Selective exchange of CAD documents
- Job Processor and Desktop Connector

Who it’s for

- IT Manager
- Project Engineers
- Field Engineers
- Project Managers

Prerequisites

- Enterprise Success Program
- Attendees must have a basic understanding of Vault and document management modules in BIM 360 and Fusion Team

Capabilities

- Data Management
How to: Analyze geometries with Inventor Nastran

Learn how to use CAD-embedded FEA workflows for structural element analysis in Inventor® Nastran.

**Topics**
- The Nastran environment
- Linear static analysis with solid elements
- Defining idealizations
  - Element type and material
- Mesh settings
- Boundary conditions
  - Constraints and loads
- Interpreting analysis results
- Generating a report
- How to duplicate an analysis
- Linear static analysis with shell elements
- Introduction to Contact
- Mesh convergence

**Who it’s for**
- Engineers
- Designers
- Project Managers
- Finite Element Specialists

**Prerequisites**
- Enterprise Success Program
- Access to the CS Learning Course
- Access to Inventor and Inventor Nastran

**Capabilities**
- Product Simulation
Evaluate your SQL server and Vault configuration with a set of purpose-built diagnostic tests that check settings, verify errors, and confirm healthy replication.

Topics
- SQL settings
  - Cardinality
  - Compatibility
  - Mode
  - Max memory
- CPU
- Memory
- SQL/Window Versions
- Long running queries
- Maintenance
  - Maintenance plan
  - Index health
  - Current Statistics
  - Job statuses
- SQL Errors
- Replication status (if applicable)
- Database Size and growth
- SQL Waits types and causes

Who it’s for
- Vault Administrators

Prerequisites
- Enterprise Success Program
- Attendees should have basic knowledge of Vault

Capabilities
- Data Management
How to: Share data between Vault and BIM 360 or Fusion

Learn how to securely sync and share selective data to extended project teams using BIM 360® Docs, Fusion™ Team, Autodesk Viewer, and Autodesk Drive.

### Topics

- **Collaborative with Vault Professional**
  - External collaboration workflows
  - Project sync
- **Autodesk Drive**
  - Pack & go including transmittal report
  - Accessing design data
- **Desktop Connector**
- **Fusion Team**
  - Exchanging data with external collaborators
  - Project sync
  - Selective Exchange of CAD document
  - Job Processor & Desktop Connector
  - BIM 360 Docs
  - External collaboration workflows
  - Project sync

### Prerequisites

- Enterprise Success Program
- Attendees must have a basic understanding of Vault and document management modules in BIM 360 and Fusion Team

### Who it’s for

- IT Manager
- Project Engineer
- Field Engineer
- Project Manager

### Capabilities

- Data Management
Learn how the BIM 360® Docs ecosystem works, how to set up a project folder structure with permissions, and how to upload record documents.

**Topics**
- BIM 360 Docs modules
  - Document Management
  - Desktop Connector
  - Project Home
  - Insight
- Creating a project
- Project settings
- Folder structure
  - Plans vs. project files
- Folder permissions
- Plans upload

**Who it’s for**
- VDC Manager
- Project Engineer
- Field Engineer
- Project Manager
- Project Controls

**Capabilities**
- Coordination
- Quality Management
- Cost Management
- Design Collaboration
- Document Management
- Commissioning
- Document Management

**Prerequisites**
- Enterprise Success Program
- Attendees should have basic knowledge of BIM 360 Docs
How to: Create issues and manage documents in BIM 360 Docs

Learn how to use BIM 360 Docs to log issues on site, approve and send documents, and use record documents in the field.

Topics

- Mark-ups
  - Permissions
  - Creation and visibility
  - Reviewing mark-ups
- Issues
  - Permissions
  - Creating an issue
- Reviews
  - Creating an approval workflow
  - Submitting documents for review
  - Monitoring reviews
  - Reviewing and approving documents
- Transmittals
  - When and how to use transmittals
  - Creating a transmittal
  - Accessing documents on mobile devices

Who it’s for

- VDC Managers
- Project Engineers & Field Engineers
- Project Managers
- Project Controls
- Architects

Prerequisites

- Enterprise Success Program
- Attendees should have basic knowledge of BIM 360 Docs

Capabilities

- Design Collaboration
- Document Management
Introduction to: Vault for DR/BC plans

Get familiar with how Autodesk® Vault® fits into your DR/BC plan, including disaster recovery procedures, the impact of infrastructure loss, roles and responsibilities, and more.

Topics
- Criteria for including Vault in a disaster recovery plan
- Considerations for when the Vault environment is replicated
- 3rd party solutions for backing up and restoring Vault
- What is not included in the default Vault disaster recovery plan
- Planning for disaster recovery
- Considerations for when the Vault server hosts AutoCAD®, Plant 3D, and Revit® data
- Accounting for other applications in the Vault ecosystem when developing a recovery plan
- Roles and responsibilities involved in the disaster recovery plan

Who it’s for
- Disaster Recovery Coordinators
- Database Administrators
- IT and Network Administrators
- Vault Administrators
- CAD Managers
- Escalation Managers

Capabilities
- Data Management

Prerequisites
- Enterprise Success Program
- Attendees must be familiar with their internal disaster recovery process
- A test environment matching the production environment
Learn how to build a proof of concept web application for publishing CAD models to a digital product catalog with Autodesk® Forge® & Fusion 360®.

### Topics
- Fusion 360® & Forge Platforms
  - App Capabilities
  - Digital Catalog
- Interactive Instructions
- Solution Architecture
- App Deployment
- Expansion Ideas

### Who it’s for
- Product Marketing
- Sales Engineers
- Field Engineers

### Prerequisites
- Enterprise Success Program
- Attendees have a basic understanding of document management in Fusion Team

### Capabilities
- Product Configuration
Get familiar with the Sub-D toolset in Alias® and the workflows needed to quickly create Sub-D concept models.

**Topics**
- Understanding the anatomy of a Sub-D
- Understanding the Sub-D toolset in Alias
- Workflows for:
  - Box modelling
  - Edge modelling
- Adding details and model refinement
- Understanding topology
- Model clean-up
- Using traditional surface operations to add details and hybrid modelling

**Who it’s for**
- Industrial Designers
- Digital Sculptors
- Math Modelers

**Prerequisites**
- Enterprise Success Program
- Attendees should have a basic understanding of Alias

**Capabilities**
- Surfacing
- Visualization
How to: Work with Inventor models in Revit and BIM 360

Learn how to prepare your existing design content in Autodesk Inventor® and publish it for use in Revit® and BIM 360®.

**Topics**
- Connecting Manufacturing and AEC
- Collaboration between Manufacturing and AEC
- Workflows for connecting Manufacturing and AEC
- Publishing Inventor models as BIM objects
- Simplifying Inventor models and removing intellectual property
- Defining MEP connectors
- Publishing BIM content
- Using Inventor data in Revit

**Who it’s for**
- Product Design Engineers
- Mechanical Engineers
- Manufacturing Engineers
- Industrial Engineers
- Architects
- Building Design Engineers

**Capabilities**
- Factory Layouts and Planning
- Design Detailing
- Coordination
- Civil Structure Model Authoring
- Civil Structure Detailing

**Prerequisites**
- Enterprise Success Program
- Attendees should have a basic understanding of Inventor
Introduction to: Hybrid modeling with Nurbs and SubD

Learn how to create SubD models in a hybrid environment using Nurbs, Polygons, and Scan Data, and work with multiple geometry sets in Alias®.

Topics
- What hybrid modeling is
- Hybrid modeling environments
- Using the surface and surface edit tools to modify a SubD model
- SubD to SubD workflows
- Using scan data in SubD modeling
- Updating NURBS models with SubD
- Working with Maya® data in Alias

Who it’s for
- Industrial Designers
- Digital Sculptors
- Math Modelers

Prerequisites
- Enterprise Success Program
- Attendees must have access to Alias 2021
- Attendees should be proficient with the Alias application and have experience in SubD workflows

Capabilities
- Visualization
# How to: Integrate multiple assemblies into a machine design

Learn how to use sub-assemblies, constraints, and imported CAD data to bring multiple assemblies together into a holistic machine design.

## Topics
- Establishing your start
- Using sub-assemblies
- Leveraging constraints
- Interacting with imported CAD data

## Who it’s for
- Product Designers
- Mechanical Engineers
- Manufacturing Engineers

## Prerequisites
- Enterprise Success Program
- Attendees must have access to AutoCAD and Inventor

## Capabilities
- Machine Design
How to: Transition from files to items in Vault

Learn how to create, maintain, and link items with files in Autodesk® Vault Professional.

Topics
- Overview of Items
- Overview of Item management
- Bills of materials and BOM views
- Managing Items and BOMs in Vault
- BOMs in Inventor
- Types of BOM structures
- Creating Items
- Item masters
- Managing and maintaining
- Configuration options for Items
- Setting types
- Users and roles
- Watermarking
  - Configuring the Item workflow
  - Item commands and tools

Who it’s for
- IT Project Engineers
- Project Managers

Prerequisites
- Enterprise Success Program
- Attendees should have a working knowledge of Vault’s file, revision, lifecycle, and properties functionalities.
- Access to Autodesk Vault

Capabilities
- Data Management
- Bill of Materials Management
Introduction to: Fusion simulation

Get familiar with the Autodesk Fusion 360® simulation environment with an introduction to the static stress analysis.

Topics
- Installing Autodesk Fusion 360
- The user interface
- Assigning and reviewing material properties
- Assigning loads to the geometry
- Assigning constraints
- Defining contact between parts of an assembly
- Meshing the geometry
- Analyzing the geometry
- Reviewing and comparing results

Who it’s for
- Product Designers
- Design Engineers
- Mechanical Engineers
- Project Managers

Prerequisites
- Enterprise Success Program
- Attendees should have a basic understanding of engineering

Capabilities
- Not in Airtable
How to: Plan for a Vault migration

Learn how to migrate your Vault, cover in-place upgrades and new server migrations, and how to handle both multi and single-site environments.

Topics
- Vault installation
- Vault migration in a multi-site environment
- Vault requirements
- SQL Server Requirements
- Testing and validation
- Migrating in a single site environment
- Migrating in a multi-site environment
- Migration when SSL is configured

Who it’s for
- CAD Managers
- IT Managers
- Database Administrators
- Vault Administrators

Prerequisites
- Enterprise Success Program
- Attendees should have knowledge their organization’s Vault environment and current configuration

Capabilities
- Design Automation
- Design Collaboration
Learn how to prepare, execute, and streamline clear and effective design reviews with peers and all involved stakeholders.

**Topics**
- Definition & Setup
  - Design View Representations
  - Level of Detail Representations
  - Positional Representations
  - Model-based Definitions (3D Annotations)
- Share & Review
  - Inventor Read-only Mode
  - Autodesk Design Review
  - Autodesk Shared Views (Online Viewer)

**Who it’s for**
- Product Design Engineers
- Mechanical Engineers
- Manufacturing Engineers
- Industrial Engineers

**Prerequisites**
- Enterprise Success Program
- Attendees should have a basic understanding of Inventor

**Capabilities**
- Design Coordination and Review
How to: Review models with visualized walkthroughs

Learn how to navigate an immersive, animated walk-through of a federated model to identify problems using Navisworks®.

**Topics**

- Preparing federated models for review
  - Navisworks file formats
  - Appending and merging models
  - Transforming models
  - The Appearance profiler
  - Grid and levels
  - Sectioning
- Real-time navigation
  - Steering Wheels
  - View Cube
  - Controlling the realism of your navigation
  - Custom avatars
  - Viewpoints
- Reviewing models
- Selecting objects and finding models
- Output viewports and resolving issues

**Who it’s for**

- Project Leads
- Project Managers
- Project Engineers

**Prerequisites**

- Enterprise Success Program
- Attendees should have a working knowledge of Navisworks

**Capabilities**

- Visualization
- Design Coordination and Review
- Coordination
Learn how to track and manage the lifecycle of project assets to reduce the time to take asset data into the field, perform commissioning operations and reduce risk.

**Topics**
- What assets are
- Creating issues related to assets
- Using checklists
- Attaching documents to assets
- Exporting asset data

**Who it’s for**
- Superintendents
- Project Engineers
- Field Engineers
- Project Managers

**Prerequisites**
- Enterprise Success Program
- Attendees should have a basic understanding of the document management module in BIM 360

**Capabilities**
- Commissioning
- Equipment Commissioning
- Handover
Introduction to: Navisworks (Manufacturing)

Learn how to coordinate, review, and present your models using Navisworks®.

Topics
- Navisworks file types
- Model aggregation
- Clash detection
- TimeLiner
- Model review
- Walkthroughs

Who it’s for
- Mechanical Engineer
- Production and Operations Manager
- Manufacturing Engineer
- Facilities Manager
- Industrial Engineer
- Process Engineer

Capabilities
- Production Simulation and Analysis
- Design Coordination and Review
- Model Maintenance
- Visualization

Prerequisites
- Enterprise Success Program
How to: Create high-end visualizations using Arnold

Learn how to create realistic visualizations with your CAD data in the Arnold Renderer for 3ds Max®.

Topics
- Arnold Renderer Overview
- Installing the Arnold Renderer
- Setting up a 3ds Max scene
- Setting up a render
- Denoise solutions
- Switching between rendering on the GPU and CPU

Who it’s for
- Project Managers
- Visualization Specialists
- CAD Engineers

Prerequisites
- Enterprise Success Program
- Users have basic knowledge of 3ds Max and Revit®

Capabilities
- Rendering
Introduction to: AutoCAD Mechanical

Get familiar with the functionalities and benefits offered by the AutoCAD® Mechanical toolset.

Topics
- Standards management
- Drafting and annotation tasks
- Design and engineering tasks
- Advanced features

Who it’s for
- Mechanical Engineers
- CAD Managers
- Design Engineers
- Product Engineers

Prerequisites
- Enterprise Business Agreement (EBA)
- Attendees should have a basic familiarity with AutoCAD

Capabilities
- CAD Interoperability
- Mechanical Drafting