



AUTODESK UNIVERSITY 2016

Learn. Connect. Explore.

November 15-17 at The Venetian, Las Vegas

Embrace your inner expert

Contribute to AU. Deadline for submissions is May 27, 2016.

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Join AU's community of experts

Have you found creative ways to integrate and use Autodesk software in your real-life projects? Have you developed processes that improve company workflows and efficiency? Do you have ideas about where your industry is headed?

Contribute to Autodesk University (AU) and join the leading community of Autodesk experts who are shaping industries and pushing design and engineering software to its limits. As a member of our expert community, you'll partner with AU to offer thought leadership, outstanding training classes, case studies, exhibits, and rich learning opportunities for designers, engineers, educators, and creative professionals from around the world. As a contributor to AU, your expertise will reach the thousands of professionals who attend the event and Autodesk users around the globe thanks to AU online, our year-round learning destination.

Class proposals accepted April 27, 2016 - May 27, 2016
Speakers notified in late June 2016

About Autodesk University

Autodesk University isn't just our annual user conference. AU is a community of design and engineering professionals showcasing the extraordinary ways Autodesk software is being used to better our world. AU includes events around the globe, with an online learning hub where knowledge and thought leadership from AU events can be accessed and shared year-round.

The speakers and contributors who present their in-depth knowledge, build reputations as experts in their fields, connect with like-minded leaders, and influence a growing global community of Autodesk users are the heart of AU.

The future of making things

Autodesk is committed to the future of making things, and AU is an important part of that commitment. From keynotes by CEO Carl Bass or CTO Jeff Kowalski, to Exhibit Hall gallery experiences, to the hundreds of classes showcasing how Autodesk users are shaping design and engineering industries, AU explores the future of making things and the roads taking us there. Whatever industry you're in, we want to hear what you're doing to drive innovation in your field and shape the future of making things. Share case studies and projects, demonstrate product workflows and collaborative processes, lead panel and roundtable discussions, or provide hands-on trainings to help others in your field overcome challenges you've already faced.

Selection criteria

AU selects classes based on various criteria, including:

- The overall strength of the class proposal and its relevance to today's industry trends and best practices.
- Whether the proposal builds on existing knowledge and practice shared by AU experts or creates pathways for future learning.
- A speaker's communication skills and technical expertise, as well as the depth of their relevant background and experience.
- Survey results from previous AU speaking engagements, if available.

What you can expect

AU speakers and contributors can expect to partner with AU to create unique learning and training experiences. Whenever possible, AU supports our expert community with editorial feedback on instructional materials, helps promote speakers and their classes prior to the conference and online throughout the year, and works to increase engagement with Autodesk users worldwide.

Speaker compensation

Speakers presenting at Autodesk University events receive 1 complimentary pass to our annual user conference. Only 1 AU event pass is available for each accepted proposal, granted to the proposal's primary speaker or lead author. The primary speaker is responsible for meeting AU event requirements, including submitting all class materials and completing all class tasks on time. AU speakers with more than 1 accepted proposal for a single user conference receive a complimentary AU event pass for their first class and an honorarium for each additional class they lead. Honorariums are not available to panel members or contributing speakers.

In addition:

- Autodesk will not divide an honorarium among multiple speakers of a single class.
- Compensation may be forfeit if AU requirements are not met, including the timely submission of class materials and resources.
- Compensation does not include lodging or travel.
- Honorarium payments are distributed on-site from the Speaker Ready Room. Payments are made in the form of a Managed Spend Visa Card.

Autodesk University 2016 speaker compensation schedule

CLASS FORMAT	ROLE	FIRST CLASS	ADDITIONAL CLASSES
Industry Talk, Hands-on Lab, Panel, Roundtable, Instructional Demo	Primary speaker	AU 2016 Pass* (\$2,175 value)	\$400/class

**The AU 2016 Pass (travel and hotel not included) is not transferable.*

Note to U.S. and non-U.S. government officials and employees: Autodesk is prohibited from providing honorarium to U.S. and non-U.S. government officials and employees (in any branch of government and irrespective of title or office held), including without limitation, individuals employed by or affiliated with state-owned enterprises and individuals who represent or act on behalf of a governmental entity.

Note to Autodesk employees: Autodesk employees do not receive cash honorariums regardless of how many classes they teach. They receive 1 complimentary AU event pass (not including travel or hotel).

What we expect

AU maintains the highest possible standards among our expert community. Those attending AU events around the globe—or learning from AU online—expect a dynamic, polished, and professional learning experience.

Subject mastery is essential. Experience with teaching or public speaking can be helpful. AU experts are among the top in their fields, presenting personal and professional innovations. Autodesk empowers and makes this innovation possible.

Before submitting a proposal, get acquainted with AU. If you've attended an AU event or spent time at AU online, you should be familiar with our approach to learning. If you're new to AU, take time to learn, connect, and explore before you submit your proposal.

If your proposal is accepted, you'll be expected to meet the program requirements outlined below. This includes the timely submission of class materials such as handouts, presentation decks, sample data files, links to Autodesk screencasts, or Camtasia files. Class materials may differ depending on the class format.

AU class formats

AU speakers can present their learning content in a range of formats that support different learning styles. Connect with some of the brightest and most creative minds working in today's design and engineering fields and help impact industry practice around the globe.

The AU conference offers a variety of class formats. Most conference formats are adapted for the AU website and archived for online learning that's accessible year-round.

CLASS FORMAT	DESCRIPTION AND CLASS LENGTH
Industry Talks	Much like a lecture, AU industry talks enable speakers to provide thought leadership or present industry insights, case studies, and other innovative experiences in engineering, design, manufacturing, business management, and more. <i>Speakers are not expected to provide in-depth product demonstrations or walk-throughs.</i> Industry talks are 60 minutes.
Instructional Demos	Instructional demos offer detailed presentations of in-product workflows, processes, tips and tricks, and other ways AU experts are maximizing their Autodesk product knowledge. Instructional demos are 60 or 90 minutes.
Panels	AU experts who lead panels are expected to facilitate a conversation among experts that showcases their viewpoints and insights on an industry topic. Panels are 60 minutes.
Roundtables	AU roundtables are speaker-led discussions that involve all those attending the session. Roundtable facilitators tap into audience knowledge to reach a common understanding of the topic. Roundtables are 60 minutes, and class size is limited to 28 attendees.
Hands-on Labs	Hands-on labs provide direct software instruction with individuals gaining first-hand experience with the material or application. Labs are 90 minutes, and class size is limited to 90 attendees. Most classrooms include 45 computers, each shared by 2 attendees. As many as 3 lab assistants can support the AU speaker.

Proposal elements

Before submitting a proposal, you should get acquainted with AU. Familiarize yourself with the topics we've chosen for this year's conference and the industries we serve. AU has something for just about everybody.

Will your class build on existing knowledge and practice already shared by AU experts or create pathways for future learning? Will your class complement learning resources or topics found at AU online or is your class entirely innovative? We aim to build a learning environment that includes comprehensive solutions to the challenges you face in your day-to-day projects.

When submitting your proposal, be sure to include the following information. This will help us select proposals that best fit AU's 2016 learning goals.

Class focus

Will your class help attendees get started with new software? Go beyond the basics? Learn about industry practices and project workflows? Understand new innovations and the future of making things?

Topic

Get acquainted with AU's 2016 topics. What topic(s) best align to your class? See below for an in-depth look at this year's topics.

Class title

Be descriptive. Attendees should understand what your class covers based on the title alone. If the class focuses on Autodesk software, try to include the full product name(s) in the title.

Class description

Describe the material you'll cover and the benefits to attendees. Class descriptions should reference the individual products being taught, if any. Class descriptions should also note the knowledge and skills—or even the AU classes available online—that serve as prerequisites.

Learning objectives

A learning objective is an outcome statement that captures the knowledge or skills at the heart of your instruction—knowledge or skills that learners will be able to exhibit after exploring your AU class. Well-defined learning objectives will help you develop useful

training materials and deliver your expertise in a way that ensures real benefit to AU and your audience of learners.

Learning objectives should:

- Complete the phrase, "At the conclusion of this class, attendees will be able to..."
- Relate to specific tasks, skills, and knowledge that attendees will engage, gain, or strengthen.
- Be action-oriented and brief (no more than 125 characters each, including spaces).

Class summary

Your class summary should be succinct and precise. For example, "Learn how Fusion 360 can help you test fit and motion, perform simulations, and make photorealistic renderings and animations."

Additional proposal elements

Other proposal elements include: **related AU classes, class format, class length, target audience** (or who should attend your class), **audience occupation, level of expertise, prerequisites**, and **relevant industries**.

Also, tell us a little about yourself. Your bio should be brief and include your current position, your work history, and any experience that is relevant to your class topic and audience. Include academic qualifications, awards, and any references to published work, if applicable to the material you're presenting.

AU 2016 content

In-depth courses for beginners to advanced users

Many members of the AU community have extensive experience with Autodesk products and are looking for in-depth classes that teach new and efficient ways to use those products. Others are just starting out or adopting new Autodesk products into their design and engineering workflows. We're looking for a range of classes to support people at every level of expertise.

Process and workflow strategies

Collaboration across design and engineering domains is increasingly important for the people who use Autodesk software products. We're interested in classes that demonstrate how multiple Autodesk products can be leveraged for innovation and efficiency, and how Autodesk design and creation suites are improving workflows and practices.

Business management solutions

AU isn't just focused on design and engineering solutions. We're also focused on better business management. Popular topics include ways to improve company workflow, collaboration, and overall efficiency; strategies for adopting and implementing new technologies; methods for improving concept-to-completion cycles; and how businesses are managing their IP in today's cloud computing environment.

Inspirational and atypical content

Do you use Autodesk software in an unusual way that could be useful to others? Have you worked on a highly visible project where Autodesk software played an important role? If so, we want to hear from you.

Interactive roundtable discussions

The AU community benefits from a rich and distributed expertise. If you have a point of view on an industry topic and want to dive deep with community-sourced learning, submit your class proposal as a roundtable session.

AU 2016 topics

Alternative infrastructure workflows	Animation and entertainment
Architecture	AutoCAD and general design
Automotive and industrial design	Building construction
Building owners and operators	CAD management and IT
Design visualization	Fabrication for AEC
Hydrology and storm water management	Infrastructure basics and beyond
Internet of Things (IoT)	Land development and urban planning
Learning and development practice	Manufacturing and production
Mechanical, electrical and plumbing (MEP)	PLM and data management
Product design	Reality computing
Simulation	Software development
Structural engineering	Transportation
Utilities, energy and natural resources	

Alternative infrastructure workflows

AU is interested in classes that highlight new workflows in specialty industries that include mining, landfills, and quarries. We invite classes that demonstrate innovations and new workflows for these industries, including those that employ Autodesk software tools such as ReCap, AutoCAD Civil 3D, InfraWorks 360, and Navisworks.

Animation and entertainment

This topic focuses on the techniques and theories used in the creation of film, TV, games, and advanced visualization. From creating stunning assets and visual effects to telling a better visual story, these classes should help designers learn techniques from top artists in the entertainment industry who are primarily using 3ds Max Entertainment Creation Suite.

Architecture

This topic offers a wide range of 2D and 3D software and service solutions that optimize and connect teams in the building industry. We welcome proposals that cover all skill levels, from the beginner who just wants to learn the basics of design, to the intermediate and advanced user who wants to understand more about the Building Information Modeling (BIM) processes and how to implement them.

We are interested in classes that highlight how the products and cloud-based services offered within our AEC portfolio of solutions, such as Autodesk Revit, A360 Collaboration for Revit, A360 Team, FormIt, and Dynamo, will enable all attendees to better conceive, design, visualize, and help construct building projects.

AutoCAD and general design

AutoCAD and general design covers a wide range of topics and products and provides the latest tips and tutorials for getting the most out of AutoCAD and AutoCAD-based products. Classes should focus on the newest and most efficient techniques for design documentation, interoperability, collaboration, and connectivity.

Automotive and industrial design

Style and design are at the forefront of providing competitive differentiation. Market leaders recognize the important role design and styling play in ensuring the success of a product in today's marketplace. From the design of automotive vehicles to high-end consumer goods, style plays a critical role in defining a company's brand. We invite proposals for beginner to advanced classes focused on the use and application of Autodesk Alias products. Classes should focus on technical workflows and best practices for advanced design and visualization concepts for automotive and product design.

Building construction

This topic focuses on the software, services, and strategies that enable and support the construction phases for building (vertical) and infrastructure (horizontal/heavy) projects, with an emphasis on the use of BIM. Topics should include processes and/or workflows using the Autodesk portfolio of construction offerings. All phases of the construction process should be considered, including but not limited to:

- Construction document management
- Design to construction handoff
- Pre-construction and virtual design and construction
- LEAN construction practices
- Field layout
- Field execution/field management
- Commissioning and handover

Building owners and operators

This topic focuses on the needs of building owners and operators across the building lifecycle and the role that BIM plays in helping them design, construct, and operate their facilities more effectively. We're seeking proposals that show how design teams can design with the operations phase in mind, how contractors can better support the handover process, and how facilities teams can use rich BIM asset data to better operate and maintain their building assets and portfolios. Topics may include: designing for operations and maintenance, construction for handover, planning for renovation and retrofits, developing a preventive maintenance program, achieving energy management objectives, and using IoT for predictive maintenance and improving building asset performance.

We love classes that include Autodesk Building Ops, Autodesk Revit, Autodesk BIM 360 Field, Autodesk BIM 360 Glue, and other technologies that support the topics noted above.

CAD management and IT

This topic covers software, hardware, information technology (IT), management, economic, intellectual property, and user-training topics. The topic's focus is on examining all the steps that are required to plan, implement, and maintain CAD and IT ecosystems for optimal user and company productivity. We seek proposals that can help working CAD managers develop their skills, get more done with less effort, and make their firms more efficient by using smart deployment and management of CAD and IT tools. Classes in this topic will use examples from all types of disciplines, company sizes, and work topologies.

Design visualization

Learn how to combine design and animation tools and technologies to create architectural visualizations that are both photorealistic and navigable. We're looking for classes for architects and designers of all skill levels that explore augmented reality and virtual reality technologies and their uses in architecture projects. We're also interested in exploring interactive visualization tools and techniques, using game engines or real-

time engines to manipulate design models, innovative visualization workflows, high-end rendering and compositing, and animated visualization, which includes the use of movie techniques and walk-throughs.

Fabrication for AEC

This topic focuses on fabrication and prefabrication software, services, workflows, and strategies important to mechanical, electrical, and plumbing (MEP) contractors, structural engineers, and steel detailers. For MEP contractors, we're looking for proposals on topics that illustrate the use of Autodesk Revit, and Autodesk Fabrication CADmep, ESTmep and CAMduct software products. We're interested in proposals showing best practices to real-world Revit Design to Fabrication workflows, MEP estimation, and detail MEP systems for fabrication to MEP contractors. For structural firms, we welcome proposals that illustrate steel, concrete, and precast workflows using Autodesk software such as Advance Steel and/or Advance Concrete. Classes should focus on best practices, implementation strategies, and workflows using Autodesk structural fabrication products.

Hydrology and storm water management

Classes in this topic area should focus on the general needs and practice areas of those operating in hydrology environments. We invite classes that focus infrastructure workflows, as well getting the most out of your Autodesk software, including Storm and Sanitary Analysis, Hydraflow extensions, and River and Flood Analysis in AutoCAD Civil 3D. We also invite classes that focus on storm water features in InfraWorks 360, and workflows between InfraWorks 360, AutoCAD Civil 3D, and more.

Infrastructure basics and beyond

For infrastructure basics and beyond, we're interested in classes that span Autodesk's Infrastructure Design Suite and the diverse features available in the collection of products. We invite classes that highlight specific features, especially those in products like InfraWorks 360 or AutoCAD Civil 3D. Classes might focus on new features in InfraWorks 360 or demonstrate how to manage large surfaces in AutoCAD Civil 3D.

We're also interested in classes that address the customization and configuration that is possible in Autodesk infrastructure design software. Classes in this area might focus on:

- Using shortcuts in data management
- Creating and managing styles in Civil 3D and InfraWorks 360
- Working with large datasets
- Configuring user interfaces
- Creating and running scripts in InfraWorks 360

Internet of Things (IoT)

The Internet of Things (IoT) is a growing network of physical devices embedded with electronics, software, and sensors that are connected to the Internet and to each other. And Autodesk software like Fusion Connect (formerly SeeControl), in combination with other products in Autodesk's design and manufacturing portfolio, are helping shape a new era for products and technology. We're interested in classes that showcase a future of making things where any built object or product can be embedded with sensors that can feed information back into the design process. Classes might also demonstrate how the IoT combined with the cloud is enabling manufacturers to capture, analyze, control, and manage data from remote products and assets. Specifically, AU classes on this topic might:

- Demonstrate how Autodesk's IoT technology is leading the way for connected products.
- Illustrate the lifecycle or journey of connect products.
- Teach methods for building a business case for connected offerings.
- Demonstrate how leading companies are creating connected offerings.

Land development and urban planning

In the topic of land development and planning, we're interested in classes that highlight workflows for landscape architects, surveyors, and industry leaders in commercial site design and the design of residential subdivisions. We also invite classes that focus on site selection practices, including workflows involving InfraWorks 360. Other classes might focus on workflows for landscape architecture, such as those between InfraWorks 360 and Autodesk Vehicle Tracking, as well as how—and why—software workflows can improve surveyor practices.

Learning and development practice

AU is interested in classes that explore the practices and processes that enable learning and development, including the ways virtual training, knowledge sharing, communities of practice, and information and resource management support professional development. Classes in this topic area might focus on the ways small to large businesses mentor and train teams; how training content is developed, managed, and shared; how CAD or BIM standards are maintained; and how social learning and industry focused communities might drive innovation and the future of making things.

Manufacturing and production

AU is interested in informative, innovative classes that cover the spectrum of manufacturing and production from small batch, customized, and high value all the way to mass production of quality. We're looking for classes that share case studies using Autodesk software, new processes, lessons learned through example, new materials,

scaling up, tooling up, and more. Be it machining, printing, EDM using standard machine setups, robotics from design idea to planning, through procurement and commissioning, this is the opportunity to tell, teach, and spread your expertise. We invite classes focused on the latest trends in layer-based composites and robotics as well as more established industrial machining; beginner to advanced classes that help attendees realize the benefits of process planning and factory layout technology; and classes that detail advances in the design, make, and use of additive manufacturing.

Mechanical, electrical, and plumbing (MEP)

This topic focuses on the software, services, workflows, and strategies important to mechanical, electrical, and plumbing (MEP) engineers, designers, drafters, BIM managers, CAD managers, and design professionals. We're interested in proposals showing best practices for BIM implementation and adoption, how to get started with BIM for MEP engineering design projects including examples of real-life projects and implementation strategies, and solving workflow challenges using Revit, Revit MEP, or AutoCAD MEP, along with Autodesk 360, Autodesk Simulation CFD, and our AEC portfolio of solutions. We also want to explore coordination between MEP engineering firms, structural engineering firms, architectural firms, and contractors. Classes should be focused on advanced modeling and design, and tailored to intermediate and advanced users with live or recorded product demonstrations.

PLM and data management

The PLM and data management topic will showcase the tools to manage the lifecycle of products our customers make. These classes cover bill of materials (BOM), change management, file management, and more. Show attendees how to manage processes and files, and how to extend and connect to other enterprise solutions within a company. In addition, we're interested in: bill of materials and CAD file management; workflow and lifecycle management; quality, supply chain, and cost management; integrations to enterprise business systems made easy; and the future of CAD and workflow management.

Product design

Classes on this topic should provide expert instruction to help product designers sharpen their tools. We're looking for Inventor classes covering tips and tricks, best practices for managing large assembly performance, automation & API, and specific areas like sheet metal, T&P, and frame design. We're also interested in classes showing ways to effectively work with design data across multiple platforms and how to use the right tool at the right time for maximum productivity, Inventor interoperability, delivery of product design data inside Revit models, and introducing Inventor users to additional products and services to be included within the Autodesk Product Design Suite. Show product designers how

desktop, mobile, and cloud platform design tools are evolving by demonstrating useful cloud services for Inventor and Product Design users, plus new ways to document designs and communicate design intent.

Reality computing

This topic focuses on the use of reality capture technologies (such as laser scanning, drones, and handheld devices) and Autodesk software including ReCap 360 on construction sites for building renovation and factory retrofit, or for infrastructure design, construction, and inspection. We're looking for classes that examine the impact of reality capture technologies on overall project performance including cost, timing, and safety measures, and classes exploring new trends in reality capture technologies.

Simulation

This topic focuses on using simulation technology as an integral part of the design process to ensure that a design is not only desirable but can be manufactured and will perform as expected, minimizing surprises and reducing the time to market. We're looking for structural engineers, CFD specialists, Autodesk Simulation Moldflow experts and designers who are using simulation products. If you have expertise in these areas and want to demonstrate what you can do with our simulation tools, or if you have a success story to share, submit a class proposal for the simulation topic.

Software development

Software development covers a broad range of development topics about Autodesk products, including those that focus on using the extensive APIs available in our products through programming languages, such as Visual LISP, VB.NET, C#, and C++, as well as more general programming concepts. We're also interested in topics that cover the use of Autodesk technology on desktop, cloud, and mobile platforms. Classes may be targeted at any proficiency level—from the entry-level customizer to advanced programmer. Software development classes with broad appeal usually attract more attendees than classes that focus on a single, esoteric feature.

Structural engineering

Structural engineering focuses on topics that are important to structural engineers and designers as well as BIM and CAD managers who want to learn more about Autodesk software for BIM. We welcome proposals that focus on:

- How to get started with BIM, including examples of implementation strategies.
- How to solve structural workflow challenges using Autodesk Revit, Autodesk Robot Structural Analysis Professional, and Autodesk Structural Bridge Design software, as well as Structural Analysis for Revit, cloud service, and complementary third-party software solutions.

- How to use best practices for coordination with BIM between architectural firms, structural engineering firms, MEP engineering firms, and contractors using Autodesk's AEC portfolio of solutions.

We seek topics that are suitable for both intermediate and advanced users. This audience highly values classes with live product demonstrations that focus on advanced modeling and design.

Transportation

Classes in AU's transportation topic area focus on a broad set of needs within civil infrastructure, including roads and highways, airports, railways, ports, and bridges. We also invite classes that are specific to surveyors and their industry practice. We're particularly interested in classes that highlight product workflows, for instance:

- How InfraWorks 360, AutoCAD Civil 3D, and Vehicle Tracking software workflows can improve road and highway design.
- How airport and rail design can be aided by workflows involving InfraWorks 360, Revit, AutoCAD Civil 3D, Navisworks, and Vehicle Tracking.
- How to transition infrastructure projects designed using InRoads software to AutoCAD Civil 3D, including interoperability and .DGN to .DWG conversion using Autodesk's Civil Engineering Data Translator.

Utilities, energy, and natural resources

This topic focuses on the use of BIM in the design, construction, operations, and maintenance of utility, mining, and natural resource extraction and processing plants. We welcome proposals that showcase workflows, best practices, and success stories about using Autodesk design suites or products, including AutoCAD, Revit, InfraWorks 360, AutoCAD P&ID, AutoCAD Plant 3D, AutoCAD Utility Design and the BIM 360 portfolio among others. Additionally, we're interested in topics that cover the use of reality capture (such as using point clouds for brownfield projects), and using collaboration tools such as Vault and A360 for multi-office projects. We also welcome proposals that showcase use cases of Advanced Steel in the design and fabrication of process and power plants.

Requirements

If your proposal is accepted by Autodesk University, you are expected to:

- Accept relevant AU agreements such as the speaker contract.
- Submit class materials to AU by Monday, October 24, 2016. Material requirements differ based on class formats, and might include:
 - A class handout (PDF) describing the topic covered and/or the specific workflows and practices examined. AU templates are provided.
 - Examples from a relevant project added to the AU online gallery.

- Sample data files (if any).
- Supply your own laptop for your presentation (unless teaching a lab) and specify any special audiovisual or software requirements.
- Attend Speaker Orientation webcasts.
- Ensure that your teaching material aligns with your accepted class proposal.
- Communicate all relevant AU information to your co-speakers and panelists.
- Answer questions about the class from registered attendees prior to AU.
- Hands-on lab leaders: assign up to 3 lab assistants. Connect with your lab assistants at least 2 weeks prior to AU to ensure they are prepared to assist with your lab. Work with the AU tech team to ensure your lab is configured to your needs.
- Submit a final presentation deck (PDF) if available by Monday, November 21, 2016, following the conference.

Marketing at AU

Please adhere to our philosophy that all classes must be noncommercial.

Sample proposals

Title: Rebar Detailing and Revit Structure

Format: Instructional demo

Skill Level: Beginner

Description: This class covers the use of Autodesk Revit Structure software as a reinforcement detailing platform. We will examine the various reinforcement tools available in Revit, including rebar extensions, area reinforcement, path reinforcement, 3D rebar, and assemblies. We will also touch on some best practices, work-arounds, shortcuts, limitations, and advantages. We will show you several examples of actual projects where Revit reinforcement has been used, and share the models themselves, methods employed for presenting quantities, and placement drawings.

Target Audience: Designers and BIM managers who are interested in using the reinforcement tools for construction documents or for creating shop drawings, and contractors who are interested in the advantages of rebar detailing in Revit

Learning Objectives: After completing this class, attendees will be able to:

- Describe best practices for getting started with rebar detailing in Revit.
- Use the base Revit reinforcement tools.
- Prepare shortcuts and work-arounds working with the Revit reinforcement tools.
- Recognize the various limitations of Revit reinforcement tools.

Title: Faster Families for Revit MEP

Format: Hands-on lab

Skill Level: Intermediate

Description: New and improved for Autodesk Revit MEP 2013! It is time to learn how to get your content modeled quickly—and save money on your projects. This hands-on lab starts with creating your own family templates; we will provide great examples that you can take home with you. We will cover how to use the Shared Parameter Exporter and present guidelines for defining your own shared parameters. We will examine in detail how to edit object styles to use the improved materials, and we will wrap up by modifying fittings for duct and pipe to improve your designs. This extremely popular lab, which filled up quickly last year, can really help you get the most out of your Revit for MEP engineers.

Target Audience: BIM managers, MEP engineers and designers, content developers, and IT managers

Learning Objectives: After completing this class, attendees will be able to:

- Maximize materials for families and object styles.
- Customize pipe and duct fittings.
- Set up a family template and work with manufacturer content.
- Import multiple parameters at once with Shared Parameter Exporter.

Title: Animation of Inventor Assemblies Using 3ds Max Design

Format: Hands-on lab

Skill Level: Intermediate

Description: Autodesk Inventor software is a great tool for building complex mechanical assemblies and Autodesk 3ds Max Design software is a great tool for generating visually-stunning rendered animations. This class fuses the 2 programs and covers topics that are related to using 3ds Max 2012 to animate Inventor assemblies. Learn how to import an Inventor assembly that is going to be used for animation in 3ds Max. Learn strategies for building a hierarchy based on the animation requirements for the imported models. This class will step through the process of creating key-frame animation of specific moveable parts. Finally, you will learn about the tools that are available for editing key frames and tweaking the overall look and timing of the animation. To complete the process, you will learn how to configure and render an image sequence for final output using mental ray.

Target Audience: Autodesk Inventor and 3ds Max users who are interested in learning how to create animations of their Inventor designs

Learning Objectives: After completing this class, attendees will be able to:

- Animate using key-frame animation and edit keys to control the animation timing.
- Render an animated sequence using the mental ray renderer.
- Import an Inventor model from within 3ds Max Design.

- Create a hierarchical structure with integrated inverse kinematics that are suitable for animating.

Title: Annotation Scaling in AutoCAD: Bringing the Technology

Home

Format: Instructional demo

Skill Level: Advanced

Description: Learn how to implement annotation scaling in your organization. Whether you would like to start with baby steps or go full bore, you will learn all levels of migrating these tools into your daily workflow. Learn about annotation scaling and how it works with hatching, text, linetype scale, dimensions, and all of the other options. See how you can “bring this technology home,” improve your productivity, and reducing unnecessary hours spent on annotations. This class is designed to assist you in building a new workflow for annotation in your organization.

Target Audience: Users of AutoCAD software or vertical products based on AutoCAD, such as AutoCAD Civil 3D, AutoCAD Architecture, and AutoCAD Mechanical software, who are advanced-level end users and CAD managers.

Learning Objectives: After completing this class, attendees will be able to:

- Explain annotation scaling.
- Integrate annotation scaling into their current workflow.
- Use annotation commands, tools, and styles.
- Reduce the time spent annotating drawings.

Sample speaker bios

Desirée Mackey, Martin/Martin

Desirée (Dezi) Mackey has been in the architecture, engineering, and construction industry for more than 15 years. After obtaining her bachelor’s and master’s degrees from the University of California, Davis, and the Massachusetts Institute of Technology, she perpetuated her nerdy tendencies with Revit. She started her career in California with a construction company, she continued with a structural engineering firm, and now she is a practicing structural engineer and Building Information Modeling (BIM) manager at Martin/Martin in Denver, Colorado. Dezi is a regular speaker at many conferences. She is the co-founder of the Rocky Mountain Building Information Society, the chair of the Structural Engineers Association of Colorado’s BIM Committee, a member of the RTC North America Committee, and she has served as an Autodesk User Group International (AUGI) board member, treasurer, and vice president. Finally, as if that’s not enough Revit

in her life, she's married to "The Revit Geek" and acts as a partner in his BIM consulting firm, BD Mackey Consulting.

Steven Schain, Spectralight Images LLC

Steven graduated from the R.I.T. film/animation program in 1989 and from A-B Tech's Entrepreneurship program in 2011. He started Spectralight Images in 1989 to deliver 3D training and animation. In 1995, as vice president of Computer Animators Plus, he began teaching 3D animation at Seminole Community College. With his love of art, he open Gallery 611 in 1997, and formed the Orlando Visual Artists League (OVAL) in 2000, serving as president until 2004. In 1998 he became a Kinetix/Discreet/Autodesk training specialist, and has contributed to Autodesk certified training material for 9 releases of Autodesk 3ds Max. He was a co-developer of the Autodesk Certified Instructor Program, and Autodesk 3ds Max fundamental standards (MEIS). Steven currently develops 3ds Max and Autodesk Maya training courseware for CAD Learning's online learning programs for 4D Technologies. Today Spectralight Images LLC provides 3ds Max and Maya training, and unique, glasses-free 3D advertising services.

David Butts, Gannett Fleming

David is a BIM specialist for Gannett Fleming, a multidiscipline engineering firm based in Camp Hill, Pennsylvania. He provides BIM implementation and training for the firm's engineering design software, including Autodesk Revit, Autodesk Navisworks, AutoCAD MEP, AutoCAD P&ID and more. He has 27 years of experience in both the design and Autodesk VAR channel, spending 13 years working as an instructor and consultant for the Autodesk building design product line. David also worked as a training manager while in the channel, and was a member of the Autodesk ATC Advisory Board for 2009–2010. He is a Revit Architecture Certified Professional, and also earned the MEP Implementation Certified Expert title. David has spoken at AU for several years, and was named a Top Speaker at AU 2011. As an author, he also contributes to the 4D Technology CADLearning training programs and has written several training manuals on Autodesk Revit MEP.