Welcome to
AIA Florida - Revit Expert Webinar
4 Common Revit/BIM Misconceptions

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IMPORTANT ANNOUCEMENTS:

-All Attendee Lines will be muted

-Send us your questions via the Chat

-This webcast will be recorded

-Any questions please call us at **305.445.6480** or email us at info@ddscad.com

ROGER MUJICA

Roger has delivered world-class training sessions on the latest trends and workflows for Building Information Modeling (BIM) and CAD platforms; as well as Inventor & Fusion 360 for Mechanical & Product Design.

He has provided support to develop, integrate, and implement new strategies to improve productivity, enhance organizational skills, and maximize employee performance.

Areas of Expertise

- Revit - BIM Manager
- 3DS Max Artist
- AutoCAD -Architecture Design
- Interior Design
- Concept Design with Inventor
- Navisworks

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BUILDING INFORMATION MODELING (BIM)
is a process for designing and collaborating using an intelligent 3D model.

It's changing the way architects, structural engineers, detailers, and fabricators are working together to design and deliver building designs faster and much more accurately.

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4 Common Revit/BIM Misconceptions we'll discuss today:

1. Revit is ONLY for big firms and projects.

2. Revit and BIM products are very expensive.

3. Learning Revit is time-consuming and difficult. (Demo in Revit)

4. Productivity suffers during the transition to Revit BIM.

1 Revit is ONLY for big firms and projects

The Truth is that:

For firms of any size, BIM helps make smarter decisions and positively impact overall project efficiency and quality. In Revit, design changes are automatically reflected in each view of the model and have all documentation automatically updated.

Revit is ONLY for big firms and projects

ADOPTING BIM HAS BENEFITED SMALL FIRMS IN NUMEROUS WAYS

- Visualizes end products more easily with 3D isometric views.

- Uses model-based collaboration with the structural engineers to streamline approvals.

- Automatically generates traditional deliverables such as shop drawings, plans views, elevations and sections views and materials lists, among others.
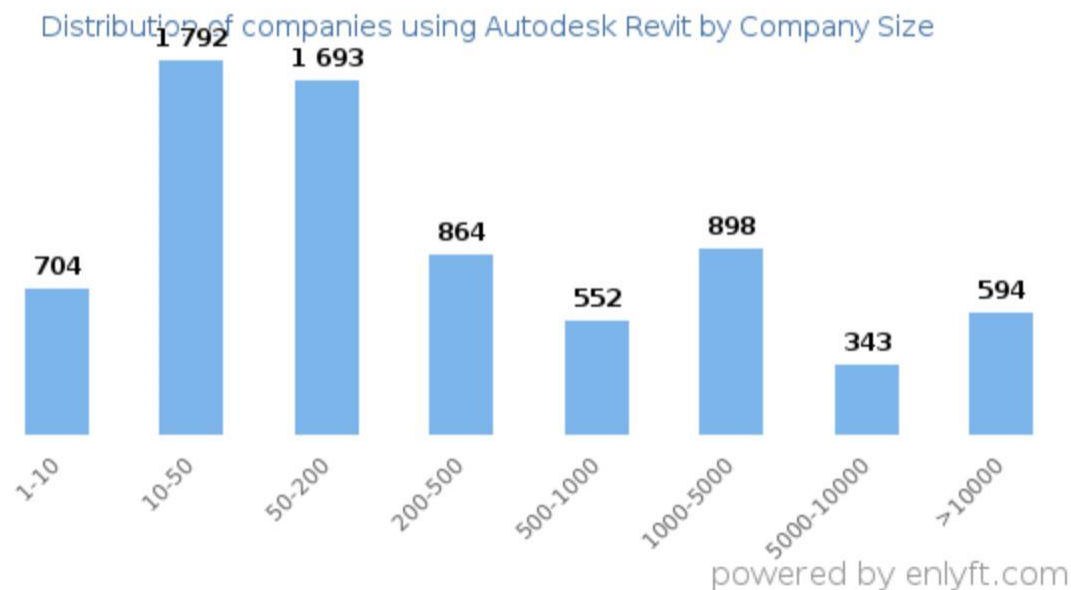
- Delivers projects without outsourcing services.

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Revit is ONLY for big firms and projects

Distribution of companies that use Autodesk Revit based on company size (Employees)

Of all the customers that are using Autodesk Revit, 33% are small (<50 employees), 42% are medium-sized and 25% are large (>1000 employees).
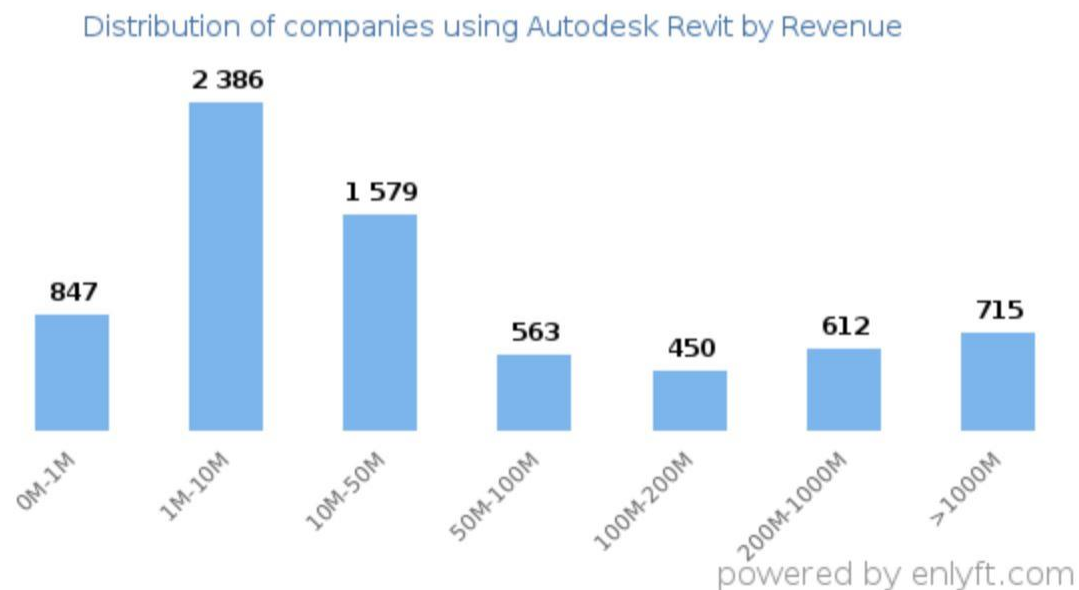

Distribution of companies using Autodesk Revit by Company Size

1-10	10-50	50-200	200-500	500-1000	1000-5000	5000-10000	>10000
704	1 792	1 693	864	552	898	343	594

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1 Revit is ONLY for big firms and projects

Distribution of companies that use Autodesk Revit based on company size (Revenue)

Of all the customers that are using Autodesk Revit, a majority (66%) are small (<$50M), 19% are large (>$1000M) and 8% are medium-sized.

Distribution of companies using Autodesk Revit by Revenue

Revenue	Count
0M-1M	847
1M-10M	2 386
10M-50M	1 579
50M-100M	563
100M-200M	450
200M-1000M	612
>1000M	715

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1 Revit is ONLY for big firms and projects

AUTOCAD®	VS	REVIT®
Digital drawing board	1	Informational 3D database
Drafting workflow	2	Single unified 3D model
Manual tracking for changes	3	Instantaneous modifications
Linear coordination between trades	4	Clash Detection
?	5	?

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Carole Dib
Architect | BIM Consultant
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1 Revit is ONLY for big firms and projects

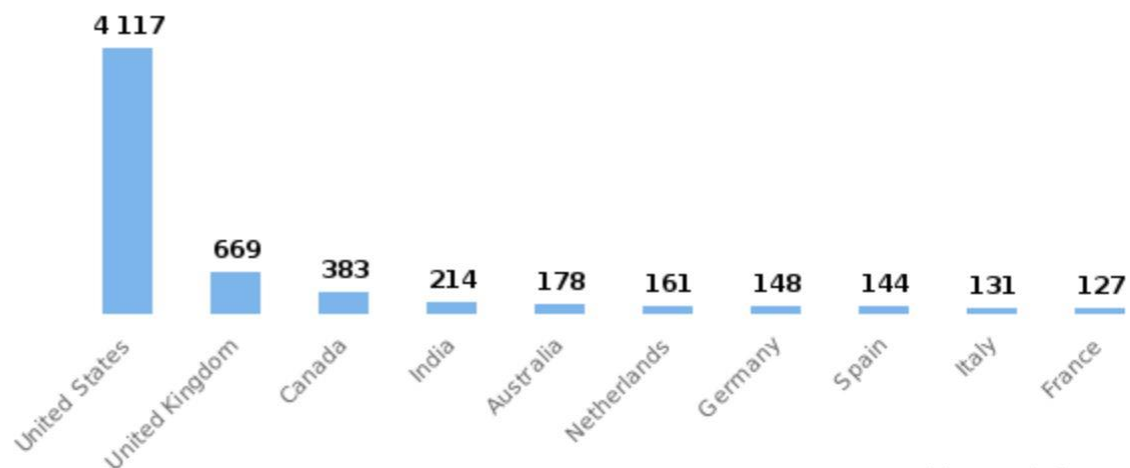|	AutoCAD	Revit
Workflow	Computer-Aided Design (CAD)	Building Information Modelling (BIM)
Drafting	2D and (limited) 3D	2D and 3D
Rendering	Limited	Yes
Parametric or Generative modelling	No	Yes
Information management	No	Yes, including 4D, 5D, 6D, 7D
Cloud collaboration	No	Yes
Learning curve	Easy	Moderate
Plugins	Yes	Yes
System Requirements	-64-bit Microsoft Windows 10 or 11 -3+ GHz processor recommended -Recommended Memory : 16 GB RAM -Disk Space :10.0 GB	-64-bit Microsoft Windows 10 or 11 -2.5GHz or Higher processor Highest CPU GHz recommended -16 GB RAM -30 GB free disk space

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Top Countries that use Autodesk Revit

55% of Autodesk Revit customers are in United States, 9% are in United Kingdom and 5% are in Canada.

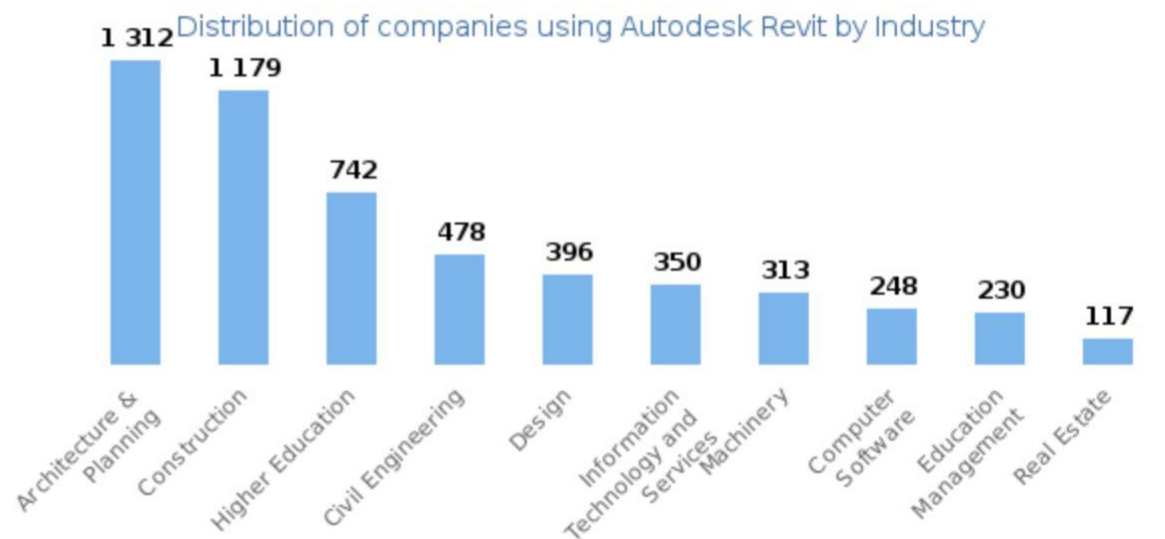### Distribution of companies using Autodesk Revit by Country

Country	Value
United States	4 117
United Kingdom	669
Canada	383
India	214
Australia	178
Netherlands	161
Germany	148
Spain	144
Italy	131
France	127

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1 Revit is ONLY for big firms and projects

Top Industries that use Autodesk Revit

Looking at Autodesk Revit customers by industry, we find that Architecture & Planning (17%), Construction (16%), Higher Education (10%), Civil Engineering (6%) and Design (5%) are the largest segments.
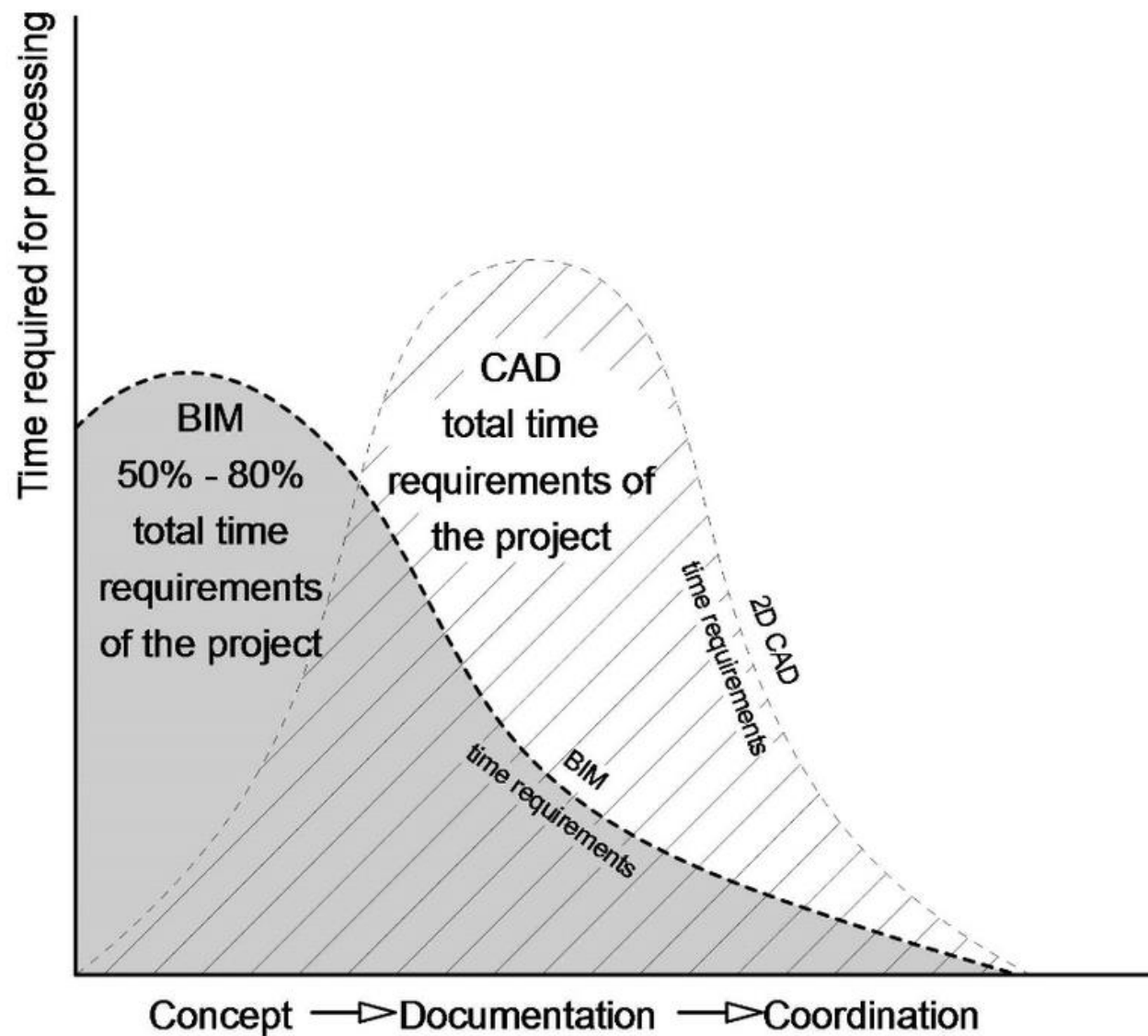
Distribution of companies using Autodesk Revit by Industry

1 312 — Architecture & Planning
1 179 — Construction
742 — Higher Education
478 — Civil Engineering
396 — Design
350 — Information Technology and Services
313 — Machinery
248 — Computer Software
230 — Education Management
117 — Real Estate

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Revit is ONLY for big firms and projects

Time required for processing

BIM
50% - 80%
total time
requirements
of the project

CAD
total time
requirements of
the project

2D CAD time requirements

BIM time requirements

Concept ⟶ Documentation ⟶ Coordination

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2 Revit and BIM products are very expensive

The Truth is that:

To get started with BIM doesn't have to be costly. Regardless of the size of your business, Autodesk® offers the flexibility to choose subscription options that best fit your business needs:

✔ MONTHLY   ✔ QUARTERLY   ✔ ANNUAL   ✔ MULTI-YEAR RENTAL

Revit is also available for DAILY use with FLEX Tokens

* Please visit www.ddscad.com and contact us to help you choose the subscription type that best fits your budget and business needs.

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Revit and BIM products are very expensive

What is Revit?

Revit® BIM software helps architecture, engineering, and construction (AEC) teams create high-quality buildings and infrastructure. Use Revit to:

- Model shapes, structures, and systems in 3D with parametric accuracy, precision, and ease.

- Streamline documentation work, with instant revisions to plans, elevations, schedules, and sections as projects develop.

- Empower multidisciplinary teams with specialty toolsets and a unified project environment.

"Revit is the foundational tool that allows us to really maintain a single source of truth."

– Dan Stine, Director of Design Technology, Lake Flato Architects

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2 **Revit and BIM products are very expensive**

Why use Revit?

Run projects more efficiently

Ease production burdens by using built-in automation for documenting design and managing deliverables.

Unify teams and workflows

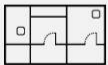Save, sync, and share model-based BIM and CAD data in Revit and connect multidisciplinary teams and workflows.

Take command of your design data

Use Revit as the data backbone of your BIM process. Develop and deploy standards, workflows, and content.

Explore Revit by industry

Revit includes purpose-built tools for architecture, engineering, and construction disciplines. See how you can use the right tool for your discipline and work together in a unified modeling environment.

Architectural design   Structural engineering   MEP engineering   Construction

Revit and BIM products are very expensive

What is Revit LT?

A BIM (Building Information Modeling) solution for the small firms and stand-alone professionals, Revit LT™ is a cost-effective project workhorse for the small architecture studio or solo practitioner.

- Get most of the design to documentation power of Revit.

- Win more work where BIM is required.

- Accelerate production workflows and standardize deliverables to reduce rework.

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3   **Learning Revit is time-consuming and difficult**

The Truth is that:

Remember!!!!

BIM is a process — not a tool. With **so many resources and training options readily available** in many formats, learning BIM can be manageable for even the busiest firms and Professionals.

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3 Learning Revit is time-consuming and difficult

Some of the training options are:

❑ Regular trainings sessions with Fundamentals training for beginners, intermediate and advanced levels for:
- ▪ Revit Architecture
- ▪ Revit Structure
- ▪ Revit MEP

❑ Online tutorials and blogs articles

❑ AU – Autodesk University

❑ Custom training classes to fit better your needed skillsets to become proficient in Revit

❑ Revit: Tips, Tricks, and Troubleshooting workshops & webinars

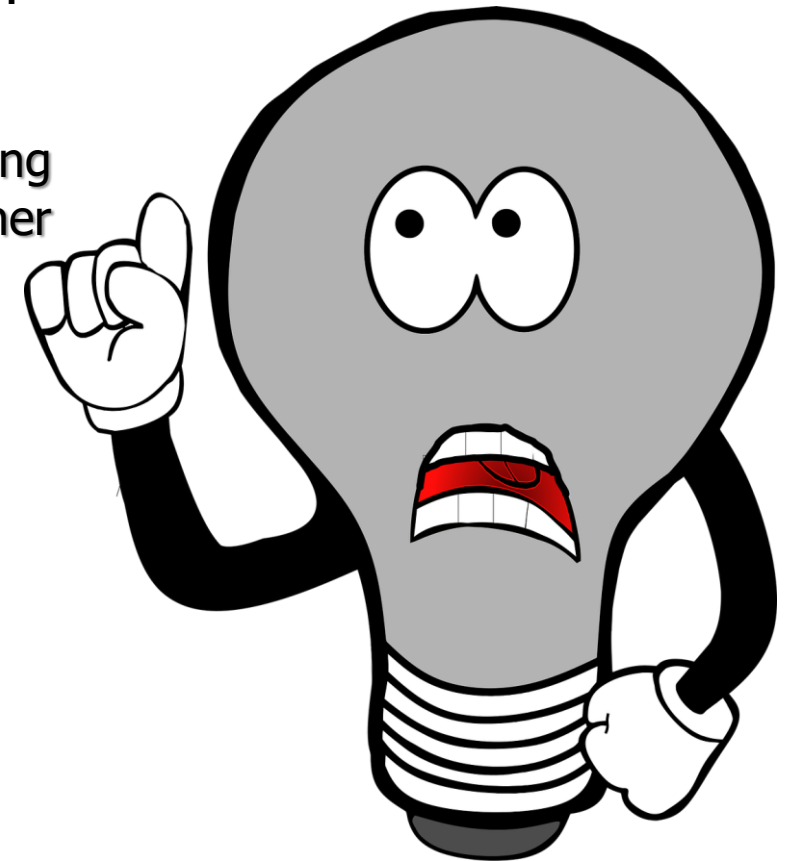# Learning Revit is time-consuming and difficult

Why is Revit so difficult?

Thousands of users find Revit to be more challenging to learn than AutoCAD. Why?

One reason for this is that Revit is a parametric modeling program, meaning that elements such as walls, windows, mechanical equipment and other construction elements are created based on predefined parameters.

Is Revit harder to learn than AutoCAD?

The simple answer is:

Learning Revit is time-consuming and difficult

No and Yes!

While AutoCAD is a simpler, computer-based 2D drafting tool, Revit is a parametric modeling software.

Revit is more advanced and capable software for complex designs compared to AutoCAD

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☐ Demo

Learning Revit is time-consuming and difficult

Transitioning from a 2D to a 3D mindset
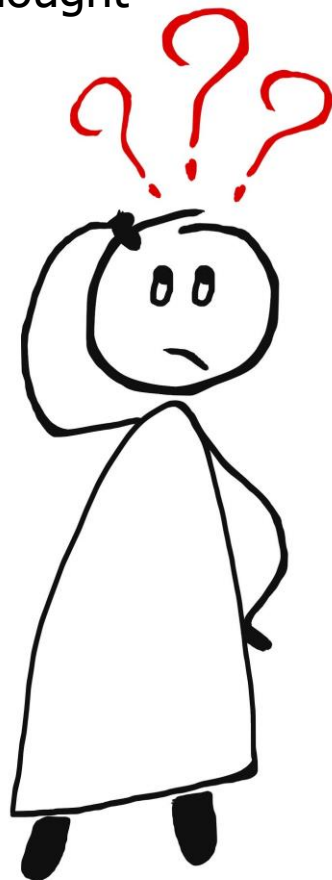### One of the biggest challenges with Revit is thinking in 3D instead of 2D

Many professionals are comfortable with how they are used to doing things and are reluctant to change.

This makes transitioning from a 2D environment program to a 3D environment in Revit even more difficult.

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How do I change my thought process?

Looking for a way to do what you used to, rather than adopting a new way of working.

The Truth is that:

Productivity gains achieved over time can compensate for the initial loss of time during training.

4 Productivity suffers during the transition to Revit BIM

How does BIM improve productivity?

BIM makes it possible for the design and documentation processes to be performed simultaneously,
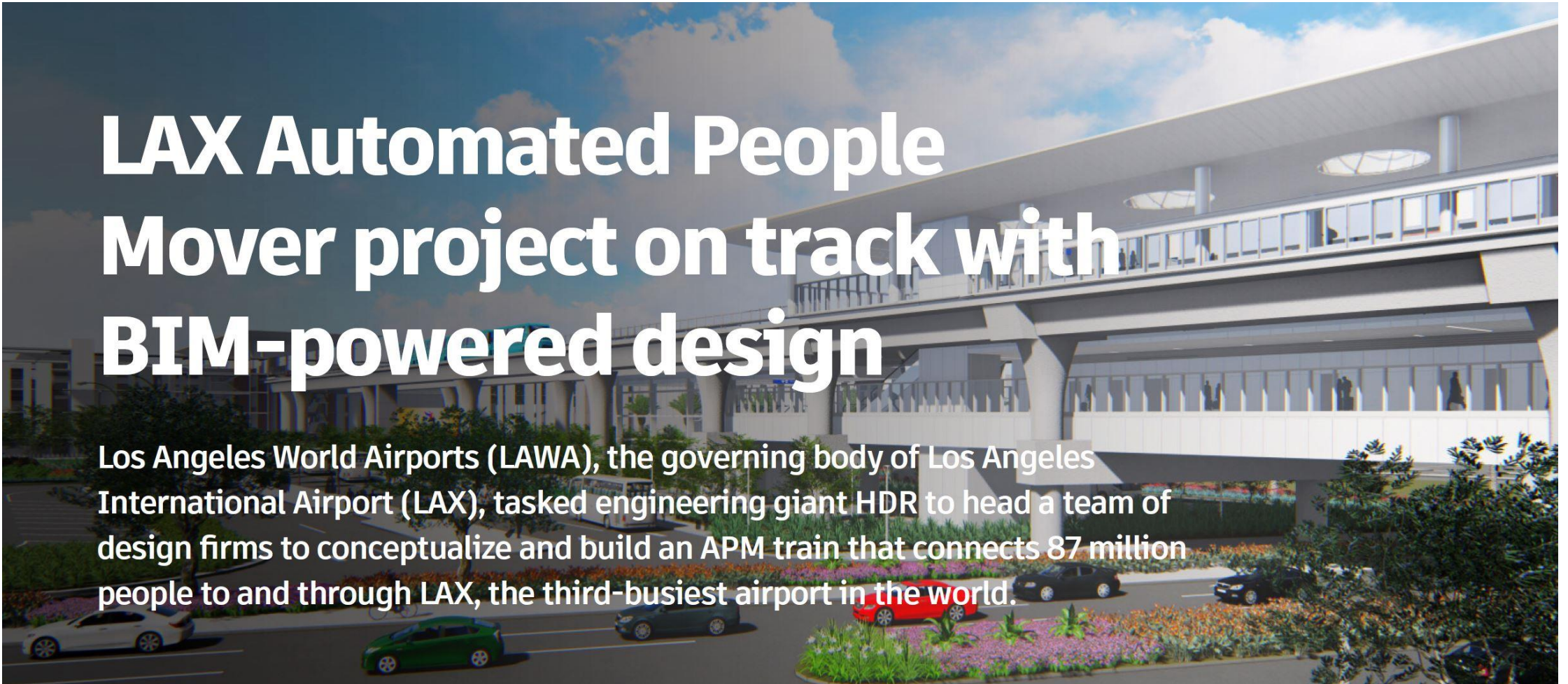
and not one after the other.

The works can be in progress while at the same time the project team

can work on drawings and diagrams, schedules, estimations, and other aspects. Thus, a building

designed and modeled with BIM allows for gaining efficiency and visibility in each phase of construction.

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Here's how transitioning to BIM helped a small firm in Los Angeles, USA.

LAX Automated People Mover project on track with BIM-powered design

Los Angeles World Airports (LAWA), the governing body of Los Angeles International Airport (LAX), tasked engineering giant HDR to head a team of design firms to conceptualize and build an APM train that connects 87 million people to and through LAX, the third-busiest airport in the world.

Image Courtesy of Los Angeles World Airports

Productivity suffers during the transition to Revit BIM

The newest integration improvements in Autodesk's AEC Collection provided clarity and time savings to the multi-disciplinary team, ensuring the design met LAX's strict project criteria, technical standards, and operational needs.

The results

Better project overview as 300+ BIM designers from 37 design firms across five time zones created and maintained 180 active design models

Improved communication and coordination thanks to successful integration of horizontal and vertical models into one common model

More automation and flexible bridge design workflow to convey complex ideas, react to changes quickly and simplify decision-making

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How they did it

Sharing information across disciplines and platforms for accuracy

Rigorous technical standards and design criteria for all design teams to follow, including a Level of Design (LOD) 300 model for all segments of the APM project.

Live design, data management, and model coordination of the project's design models in BIM 360, leveraging 3D clash detection, 4D phasing, visualization, and 5D estimating.

" We were able to find effective ways to convey complex ideas and workflows to multiple stakeholders all across the country. "

Cameron Schaefer, Digital Design Lead, HDR

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The bottom line

Key benefits of integrated design for LAX

Improved collaboration

Easier communication between stakeholders and teams as well as coordination across multiple design platforms (Civil 3D, InfraWorks, Revit, Inventor)

Better planning process

Dealing with constructability issues during design in the office rather than in the field

Budget and deadline considerations

Digital journey helps one of the largest active airport construction projects meet important milestones

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Company
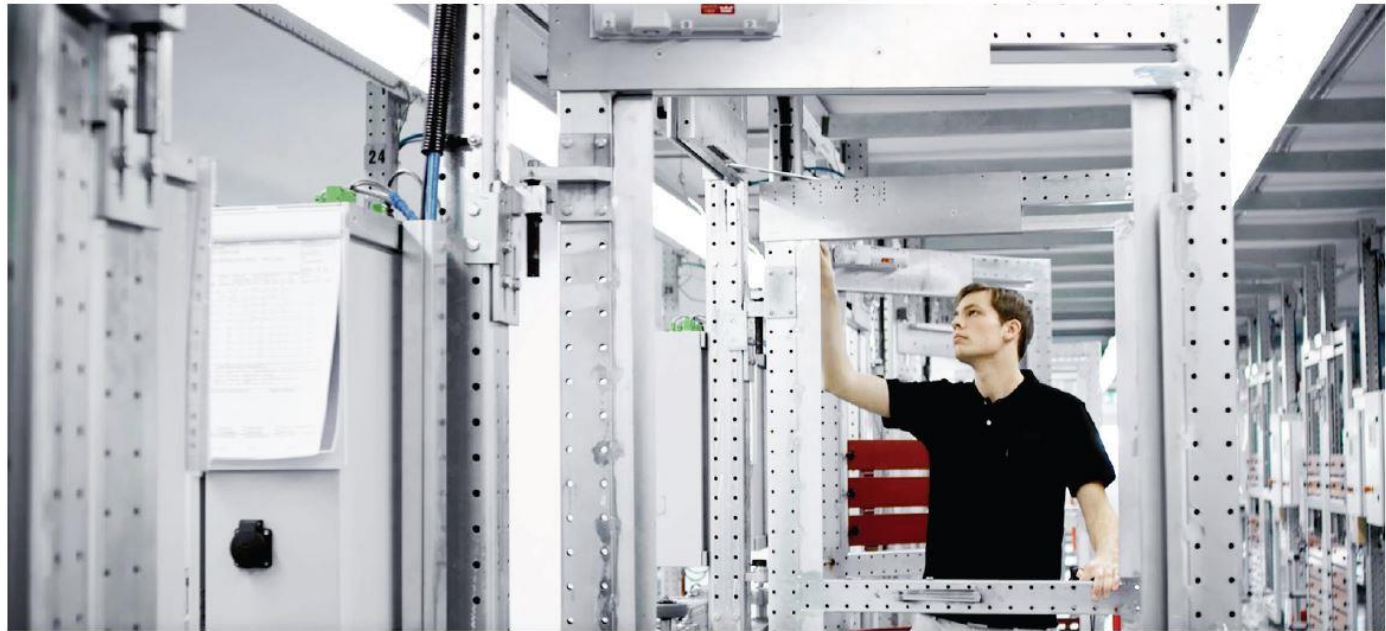**dormakaba Deutschland GmbH**

Location
Ennepetal, North Rhine-Westphalia, Germany

SOFTWARE
Revit
Forge

Doors and access solutions: More reliable planning with BIM

Modern doors are complex systems. Digital tools increase planning reliability. © dormakaba Deutschland GmbH

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Architects can access the dormakaba product families in Revit. © dormakaba Deutschland GmbH

"We are seeing a noticeable gain in efficiency: Editing door lists is 10 to 20 percent faster. This saves 8 to 10 hours on an average door list."

— **Alexander Bradfisch**
Project Management
Access Solutions DACH
dormakaba

"Planning doors has long been a chore for architects. Today, thanks to our digital ecosystem, door lists can be created easily, efficiently, and reliably."
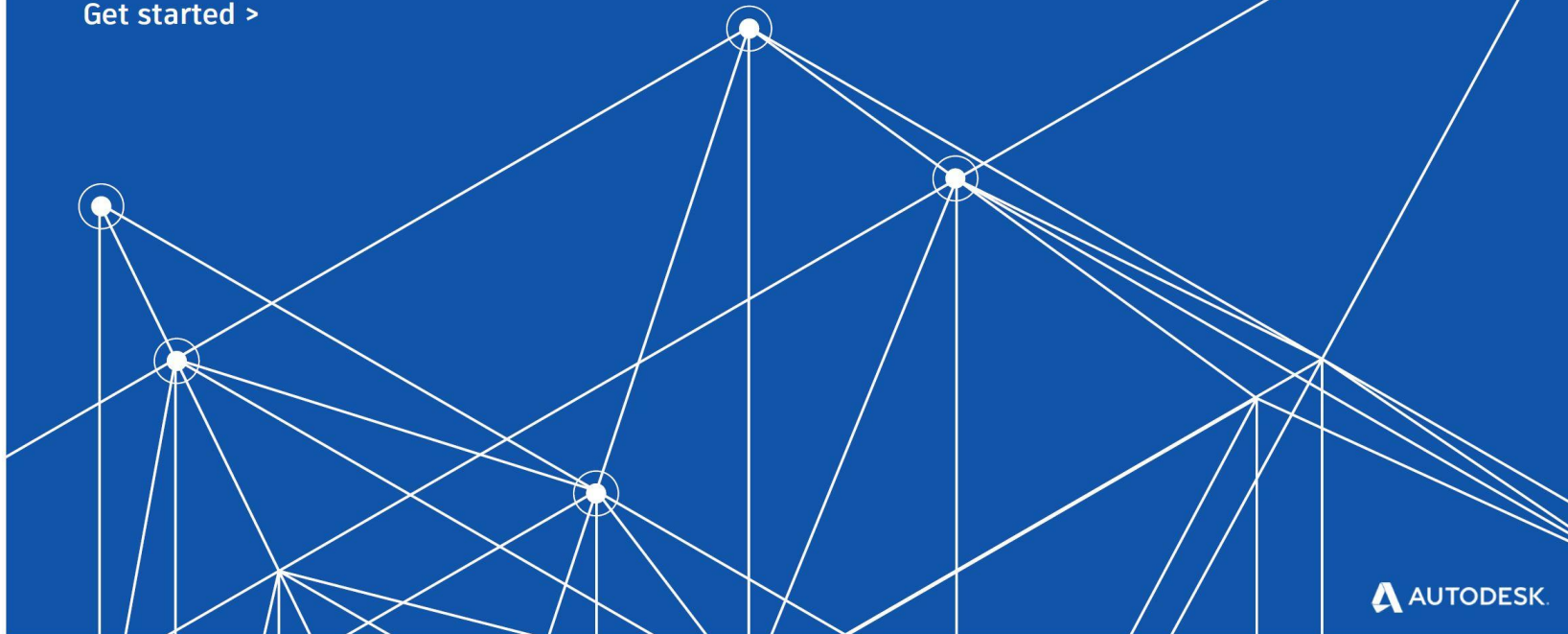
— **Alwin Berninger**
COO DACH
dormakaba

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FIVE WAYS YOUR MOVE TO A BIM WORKFLOW PAYS OFF

Get started >

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01 DELIVER HIGHER-QUALITY WORK

02 OPERATE MORE EFFICIENTLY

03 EXPAND YOUR BILLABLE CAPABILITIES

04 QUALIFY FOR MORE PROJECTS AND WIN MORE WORK

05 MAKE YOUR BIM SOFTWARE WORK FOR YOU
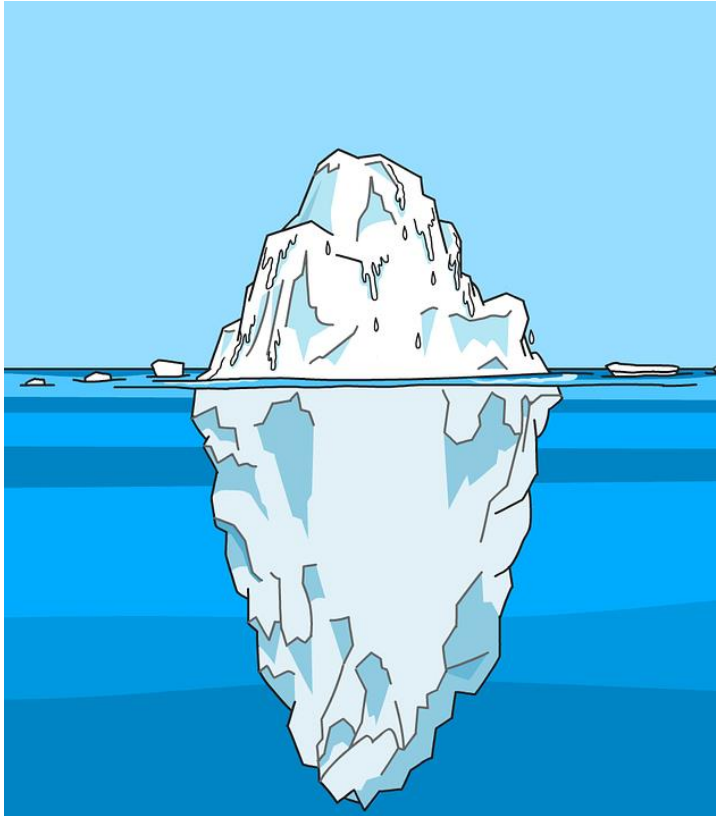
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There is much more to learn in Revit!

References

[1] https://enlyft.com/tech/products/autodesk-revit

[2] https://www.linkedin.com/pulse/5-key-differences-between-autocad-revit-carole-dib/

5 key differences between AutoCAD and Revit!

Carole Dib. Architect | Architecture Journalist

August 29, 2017

[3] https://www.researchgate.net/figure/Comparison-of-time-requirements-of-work-in-CAD-vs-BIM-5_fig4_274176930

BIM – The Process Of Modern Civil Engineering

In Higher Education

Ing.arch., Ing. Jan FRIDRICH a *, doc. Ing. Karel KUBEČKA, Ph.D.b,

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QUESTIONS?

Thanks for attending

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4 Common Revit/BIM Misconceptions

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for additional information or questions
regarding new features,
training, support and pricing.

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