

AS500272

Two Weeks to Four Hours: How Populous Built Efficiency with Generative Design

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Learning Objectives

- Discover opportunities for optimization in your workflows.
- Learn how to maximize data-driven workflows for complex design projects.
- Learn how to implement automation workflows utilizing Dynamo and Generative Design in Revit.
- Assess the value of authoring your own tools to ensure efficiency gains.

Description

Exhibition design of any sort has a unique set of needs based on event diversity, and equine and livestock venues are no different. The frequent transition of layouts demands a wide variety of designs. The Populous Equine and Expo team recently implemented Dynamo and Generative Design in Revit software to provide optimized outcomes driven by underlying data and customer requirements for future growth. Through this effort, Populous was able to produce detailed higher-quality layouts at 95% efficiency. This panel discussion will review the outcome of this exercise, focusing on time savings during stall and pen layouts at the conceptual phase, and providing a look into planned developments around automation and resulting BIM (Building Information Modeling) content. We will highlight the value of building your own tools and maximizing automation workflows and discuss our plans for the next steps in expanding the applicability to other market sectors.

AUTODESK UNIVERSITY

Speakers

Moderator

Deepika Khawal – Principal Customer Success Manager at Autodesk
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Deepika Khawal is a Principal Customer Success Manager at Autodesk and work with global AEC customers like Populous to help them achieve their business outcomes.

Panelist

Charlie Kolarik – Principal, Senior Architect at Populous
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Charlie is a Principal and Senior Architect/Project Manager at Populous. He is directly involved in the programming, planning, design and development of multi-purpose event and exposition projects undertaken by the firm. His focus is on master planning and design of both permanent and temporary venues including multi-purpose expo buildings, indoor and outdoor event arenas, and fairgrounds/livestock event venues. He understands the political, operational, and funding challenges faced by multi-purpose venues and the critical need to create event spaces with maximum flexibility of use.

Panelist

Kristin Gardner – Architect at Populous
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Over her past 7 years with Populous, Kristin has worked on a variety of venue types, including fairgrounds, racetracks, stadiums, arenas and expo facilities. With a lifelong passion for equestrian, she has spent the last few years assisting Populous' Norman office in designing world-class equestrian venues and fairgrounds. Her inclination towards digital design has allowed her to expand the office's view on what is possible through virtual design and construction.

Panelist

Jason Gardner – Associate Principal, Applications and Technology at Populous
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Throughout his 16-plus professional years and since joining Populous in 2014, Jason has taken a lead role in building information models (BIM) and virtual design and construction (VDC), working together with contractors, owners, and design firms on successful projects. He has emerged as an expert in the discipline of information technology as it relates to modern-day architecture, engineering, and construction industry. He works closely with all project stakeholders to develop new practices focused on information technology and team collaboration, and is experienced with market sectors including equestrian, sports, events, aviation, government agencies, and health care.

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Panelist

Jacob Small – Designated Support Specialist at Autodesk
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After attaining his Bachelor of Architecture degree from Wentworth Institute of Technology, Jacob Small began working at small offices on the north shore of Massachusetts, before joining CBT architects in Boston where he gained exposure to larger scale projects. In 2017 he joined Autodesk as a Designated Support Specialist, where he puts his 10+ years of experience in the AEC industry and expertise with Revit, AutoCAD, and Dynamo to help enterprise priority customers adopt computational design into their daily workflows

Panel Summary

Over the past 18 months, Populous and Autodesk partnered to explore and transform the way design is undertaken for equestrian projects. This panel will discuss our process and its effect on Populous' vision for the future of informed and generative design within the firm. This started with a shift in our perspective on what the design process could look like.

In any large group of decision makers there is one person who's there to contemplate alternatives. If the group has a strong vision or other external pressures which force consensus, this may cast aside the desire to explore more, but in other cases the desire for 'what if'. Populous often faces these type of situations, and as such had a desire to allow for direct exploration of alternatives in real time with designers and clients. In order to do this effectively, unique solutions had to be found to suit the needs of the team.

A call was placed to their internal design technology team, and the decision was made to explore data and design on an equal playing field, allowing the designers to utilize Generative Design which would produce informed design results in a fraction of the time a standard workflow