Bentley®
Advancing Infrastructure

Project Summary

Organization
Mott MacDonald

Solution
Project Delivery

Location
Global

Project Objectives
- To drive adoption of a global component library.
- To implement an easy-to-use and reliable component library management system.

Products Used
ProjectWise®, Components Center

Fast Facts
- Mott MacDonald wants to drive adoption of a global component library, which will serve 16,000 users.
- One of the biggest challenges was getting each project participant access to the necessary standardized, reusable content.
- Mott MacDonald decided to adopt a centralized library using Components Center.

ROI
- By saving 1,300 Revit users 15 minutes each day at an average salary of GBP 50 per hour, Mott MacDonald would save hundreds of thousands of dollars a month.
- Mott MacDonald anticipates having a steady stream of incremental content added to Components Center.
- The organization will continue to implement Components Center, giving users a single point of access for critical resources and information to deliver successful projects faster and more efficiently.

Mott MacDonald Improves Organizational Access to Content, Saving Hundreds of Thousands of Dollars
Components Center Provides a Single Source of Truth

Driving Adoption of a Global Component Library

As a global engineering, management, and development consulting firm, Mott MacDonald works with its clients in over 150 countries to find sustainable solutions to the world's most complex projects across the infrastructure industry. Recently, the organization decided to drive adoption of a global component library, which will serve 16,000 users across the globe. Mott MacDonald's Andy Barnes, standard content service manager, led this adoption after being a BIM coordinator at Mott MacDonald in their Water division until late 2018.

One of the biggest challenges on this project was enabling each user to have access to a library of standardized and reusable content. Many projects at Mott MacDonald had been duplicating work by recreating the same components either because they could not find it or because they were unaware that it existed. There was no centralized library for all disciplines and projects that was readily accessible to all Mott MacDonald users.

Choosing the Best Platform for the Centralized Library

To eliminate these inefficiencies, Mott MacDonald decided to adopt a centralized library. The organization already had a digital component catalog, which it had started in 2015, that was based on ProjectWise. When Mott MacDonald was trying to decide which platform to use as the centralized library, the organization evaluated three platforms: Unify, BIM Objects, and Bentley's Components Center. Components Center is a ProjectWise 365 digital component management service that provides access to catalogs of manufacturer, company, and project-specific digital components.

After working with a group of 40 users for about two months, the results of all three platforms were about the same. However, the combination of easy administration, quick, intuitive access to approved content as well as broad integration across various design disciplines gave Components Center the edge.

Integrating with Bentley's MicroStation® and Open Applications

Another benefit of Components Center was that both the browser portal, used to view and access content, and plug-ins within the design applications were lightweight but supported a flexible workflow. Its optional support for integrating with ProjectWise was also a determining factor, given Mott MacDonald's reliance on ProjectWise across its organization for managing, sharing, and distributing project content.
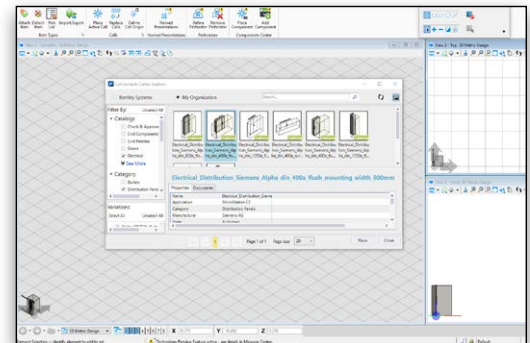
Components Center can be accessed via plugins for Bentley products like MicroStation.

Components Center also supported a tight integration with the Bentley design applications, such as MicroStation, OpenRoads™, OpenPlant™, OpenBuildings™, and other open applications. The application also supports Revit, Civil3D, and AutoCAD. Therefore, Barnes and his team chose to implement Components Center and institutionalize it across the organization.

"Just because you build a centralized digital component library doesn't guarantee that your users will adopt it, so ease of use and reliable accessibility were key considerations in our choice of a digital component management system," said Barnes. "We'll be measuring adoption levels among our users and aspire, at least initially, for 30% adoption on a regular basis."

Continuing to Gather Content Across the Organization

Now, Barnes and his team are institutionalizing Mott MacDonald's adoption of Components Center service. Barnes estimates that if the organization could save the 1,300 Revit users 15 minutes each day at an average salary of GBP 50 per hour, Mott MacDonald would save hundreds of thousands of dollars a month by avoiding wasted time. This significant time savings would come from users easily finding the right content and preventing them from spending time recreating already-existing content.

When Components Center went live in July 2019, Mott MacDonald's digital component library included 2D annotation families and assemblies, as well as 3D components. The initial library consisted of 1,500 digital components; however, Mott MacDonald is currently gathering content from other groups across the organization.

Once the digital components for Mott MacDonald's BIM applications are added to the library, the organization will also use Components Center to manage its 2D AutoCAD blocks and MicroStation cells. The staged implementation plans will slowly grow the number of users across the organization, with all users anticipated to have adopted Components Center globally by end of 2020. In the future, Mott MacDonald is anticipating integrating the service into its other enterprise systems and platforms so that users have a single point of access for the critical resources and information that they need to continue delivering successful projects faster and more efficiently.
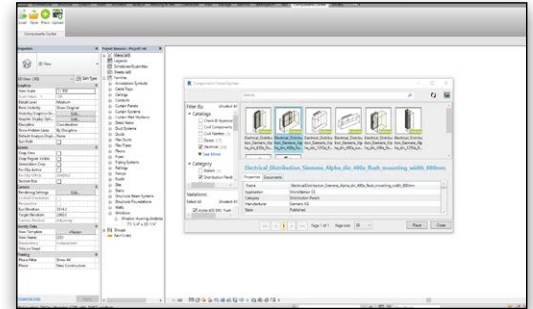
Users of Autodesk products like Revit and Civil3D can access component libraries as well.