



COMPANY

**Triple E**

LOCATION

**London UK**

SOFTWARE

**Autodesk Vault**

**Autodesk Inventor**

## Cadline and Autodesk help set the stage for Triple E design success



*"Working with Cadline has been a rewarding experience. The training was of excellent quality, and they have been quick to respond to any queries that we have had. Since working with Cadline and using Vault, Triple E has saved so much time."*

**Lucy Edelstein**  
Managing Director  
**TRIPLE E**

**Based in Biggin Hill on the South Eastern outskirts of London, Triple E has been designing, manufacturing and installing rugged, reliable and silent entertainment engineering solutions since 1984.**

Triple E products are the industry standard across the globe and the company provides a complete end-to-end service from consultation to installation, primarily targeted at design and production teams in the world of theatre and cinema. The company also carries out one-off live event projects.

Triple E's in-house precision engineering facilities enable it to meet challenging bespoke customer requirements. The company, which has specialist expertise in theatre, film, TV and events is the exclusive European distributor of ModTruss™, the world-renowned universal construction system. Today it uses design and storage software solutions from Autodesk, notably including Autodesk Vault product data management (PDM) software, delivered and supported by IT systems partner, Cadline to meet optimum standards of quality design.

## An evolving partnership

Cadline was introduced to Triple E because of the work it has carried out with the National Theatre, the Royal Opera House and the Welsh National Opera amongst other projects. Cadline has worked extensively in this area, deploying and supporting design tools used in set and stage design, theatrical lighting and schematic development, for example.

Triple E was therefore keen to engage with Cadline and the two companies met to review Triple E's design and data management process. The focus was on evaluating how Triple E operates from the beginning of a project through to delivery as well as understanding all their pain points and challenges throughout that process.

Cadline focused on identifying key areas of improvements that could be made to the way designers at Triple E were managing and sharing their project data across internal and extended teams. In addition, as part of its review, Cadline captured the time and cost of existing manual effort to help identify potential gains from any proposed solution. In order to quantify the manual effort expended by Triple E in managing its data, Cadline created an online survey for its client's design team, which was completed to capture activities and challenges from its existing data management process.

Key business objectives for Triple E that were identified by the review included the need to enhance processes to achieve goals around developing new products; a drive to increase sales of existing products, and a concerted focus on delivering productivity improvements across the business.

Triple E had been manually managing data from the mechanical design tool, Autodesk Inventor, which was causing issues managing links between parts and assemblies. Designers were saving details of different components, including nuts, bolts and washers to their local machines. That was resulting in challenges around referencing parts and not being able to open assemblies. The review also identified that Triple E's design team was spending up to 10 hours a week performing manual data

management tasks such as searching for information and creating PDF, DWG and DXF files.

Sharing information was being conducted across desks and was not scalable if designers were not physically in the office. Triple E was also having difficulty copying and reusing existing designs, causing the team to have to re model/draw and therefore duplicate effort. Further to that, the approval process was being completed manually by moving files to another location on the server, causing issues in production as accessing released and final files versions was not always reliable. The change notification process also involved significant manual effort.



## Assessing the project goals and finding a solution

In delivering a solution for Triple E, Cadline looked to address all the issues above and to deliver a robust data management environment for both design and associated project files which could be controlled through the business. That, in turn, would help Triple E drive efficiencies across the design process, and support a much more inclusive collaborative process with internal and external stakeholders.



Cadline has now implemented several seats of Autodesk Vault Professional, data management software that connects distributed teams at Triple E. This is enabling the designers to manage their project files and their CAD content robustly. It allows the design team at Triple E to work together efficiently, and it ensures information is captured in one place and manages the release of information downstream to the rest of the business.

Triple E is also leveraging Autodesk Vault Office, easy-to-use data management software that enables non-CAD users to access read only project data, helping them manage and share all project-related data from a central location and become part of the review and approval process.

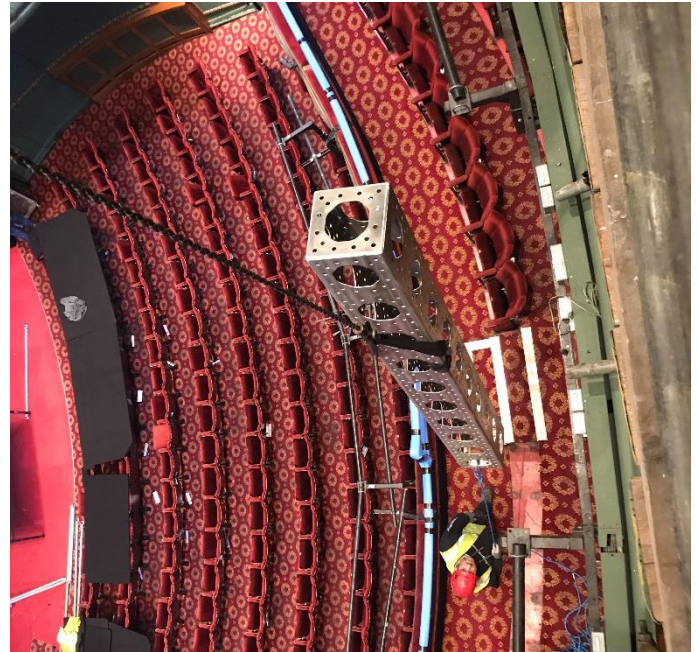
The use of Autodesk Vault has also helped Triple-E achieve enhanced collaboration through the pandemic and helps when design teams are working in different locations. It ensures that work is efficiently coordinated and all relevant users are aware when other team members are using specific files.

## Benefitting from the relationship

Triple E has reaped the rewards of a close relationship with Cadline. It has received in-depth, high-quality training from the Autodesk Platinum partner. Knowing that Cadline is available as and when required to answer support calls also delivers enhanced peace of mind.

Lucy Edelstein, Managing Director, Triple E, said: "Working with Cadline has been a rewarding experience. The training was of excellent quality and they have been quick to respond to any queries that we have had. Since working with Cadline and using Vault, Triple E has saved so much time.

"We no longer have to constantly go off and find parts that need to be referenced. Today a drawing that someone is working on can now be accessed by any other person if they have the right permissions. So, we no longer have that issue where somebody is working on a drawing and they go on holiday and nobody can find it. That's been helpful also."



## Looking ahead

Triple E is now working hard to get the optimum value it can from the Autodesk software solutions. As Edelstein states: "Our design engineering team is now working hard on getting our product archive, including back catalogue and current drawings, into Vault, so they are all there and all updated and we don't have to reference them individually every time".

"Ultimately, every single project we do will be stored within Vault including part files drawings, PDFs and any word documents associated with those," continues Edelstein. "We also use it to generate images to go into its working manual. Anything that needs to get drawn or modelled in the company now goes into Vault".

"Moving forwards," she adds, "we are focused on getting our standard product library into the solution and making sure everyone is using the viewing and sharing capabilities of the Vault Thin Client software to access the drawings they need. We are currently upskilling the rest of the staff in that regard and, with Cadline's help, getting everyone fully up to speed. Autodesk Vault is already an integral part of the company and its role is likely to grow still further in the future."