

### The Challenge:

# **Modernizing Data Engineering Education Amidst a Diverse Landscape**

Colorado Christian University (CCU) sought to modernize its data engineering education amid rapid industry advancements and a growing diverse student body. They faced the unique challenge of effectively teaching modern data warehousing within a condensed timeframe and among a diverse student body, comprising both traditional undergraduates and adult learners worldwide.

Traditional data warehousing methods proved inadequate due to several reasons. They required extensive manual configuration, were ill-suited for both in-classroom and virtual settings across various operating systems, and did not align with modern educational theories emphasizing active learning. Additionally, the escalating costs of traditional tools and the rapid obsolescence of curricular content posed further challenges. CCU needed a technologically adaptable, cost-effective solution to maintain curriculum relevance and meet diverse student needs efficiently.



Grace and Truth

Founded in 1914, Colorado Christian University is the flagship Christian university in the Rocky Mountain region. A leader in higher education, the University is ranked in the top 2 percent of colleges nationwide for its core curriculum. CCU has had thirteen consecutive years of enrollment growth and has been named one of the fastest-growing universities in the United States.

CCU offers academic programs for both traditional and online students through its two colleges. The College of **Undergraduate Studies** serves traditional undergraduate students at its residential campus in Lakewood, Colorado, a suburb of Denver. The College of Adult and **Graduate Studies** (CCU Online) offers online undergraduate and graduate degree programs to adult learners worldwide.



### The Solution:

## WhereScape's Automation Tools in Virtual Environment

#### WhereScape RED

Fast-track the development, deployment and operation of your data infrastructure projects. Dramatically reduce the delivery time, effort, cost and risk of new projects, and better position projects for future business change.

### WhereScape 3D

Quickly plan, model andd design all types of data infrastructure projects. Use sophisticated data discovery and profiling capabilities to bulletproof design and rapid prototyping to collaborate earlier with business users.

# WhereScape Data Vault Express

Make Data Vault 2.0 delivery a practical reality by automating the entire life cycle. Speed up intital development time by two-thirds, iterate reapidly, respond quickly to change, and improve maintainability.

In response to these challenges, CCU introduced a pioneering approach by incorporating WhereScape's Data Warehouse Automation tools into its data engineering curriculum. Leveraging a preconfigured Windows Virtual Desktop Interface (VDI) environment, CCU provided students with access to <a href="WhereScape">WhereScape</a> RED (Warehousing) and 3D (Data Driven Design) regardless of their device or technical proficiency.

The strategic partnership between CCU's business side and WhereScape facilitated the acquisition of

academic-use licenses, overcoming the barrier of cost while ensuring students received industry-relevant training.

Furthermore, WhereScape's automation tools eliminated the time-consuming, manual task of writing code to build data warehouses. Those automated tools, coupled with the technical support from WhereScape, streamlined the implementation process, empowering faculty and students to focus on learning outcomes rather than software configurations.

Problem	Solution
Expensive products	Academic use of WhereScape because business is a partner
Configuration of products time consuming	Preconfigured software installs in the virtual environment
No Windows PC	All devices have access to the Virtual Desktop Infrastructure (VDI)
Curriculum revisions take too long	Incorporate WhereScape training that is current
Curriculum outdated	Incorporate WhereScape training that is current
Not understanding how to implement product in VDI	WhereScape technical support provided help with the configuration of products.



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# The Impact:

# **Empowering Education Through Innovation**

The integration of <u>WhereScape's automation tools</u> and Wherescape corporate training curriculum into CCU's data engineering education programs yielded groundbreaking results. By eliminating device limitations, simplifying software deployment and blending current industry curriculum with traditional education, CCU expanded access to cutting-edge data warehousing techniques, transforming education across its diverse student body.

Moreover, the agility afforded by WhereScape's automation tools enabled CCU to adapt its curriculum swiftly, incorporating emerging technologies such as **Snowflake** and staying ahead of industry trends. Over five years, this innovative approach not only enhanced the competitiveness of CCU's data engineering education programs but also positioned the university as a leader in modern data management education within the Christian academic community.

### **Conclusion:**

# A Testament to Innovation and Collaboration

In embracing WhereScape's automation tools within a virtual environment, Colorado Christian University exemplifies the transformative power of innovation and collaboration in higher education. By leveraging technology to overcome traditional barriers, CCU demonstrates its commitment to providing world-class education while equipping students with the skills to thrive in an increasingly data-driven world. As the partnership between CCU and WhereScape continues to evolve, the possibilities for advancing data engineering education and shaping future leaders remain boundless, reaffirming the university's status as a beacon of innovation in the Rocky Mountain region and beyond

## WhereScape®

Want to learn more about Data Automation? Contact us at Wherescape.com.

WhereScape helps IT organizations leverage automation to design, develop, deploy, and operate data infrastructure faster. More than 1,200 customers worldwide rely on WhereScape automation to eliminate hand-coding and other repetitive, time-intensive tasks to deliver data warehouses, vaults, lakes, and marts in days or weeks rather than in months or years. WhereScape has global operations in the USA, UK, Singapore and New Zealand.

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