



INDUSTRIAL MANUFACTURING

Vermeer needed a responsive, product-centered website to act as its central communication source with its dealer network. The site needed to be highly searchable, stable and modern in appearance and management with content filtered by user.

Background

Vermeer Corporation delivers a real impact in a progressing world through the design, manufacture and support of high-quality industrial and agricultural equipment. They value their unique culture, lived out by the nearly 3,000 team members around the world, but headquartered in the heart of the United States.

Goals

The goal of the new Vermeer Dealer Center was to replace an existing unsupported platform with a modern portal designed to equip dealers in the field with information at their fingertips. Dealers can now quickly access the entire line of Vermeer products and information using the quality search tool that provides accurate results while working within a complex set of permissions. Other goals included:

- **Automatic Filtering of Data.** Vermeer wanted a solution to allow for content to be security trimmed for its two distribution channels and multiple permission settings.
- **WCAG 2.0 AA.** Fully compliant for website accessibility.
- **Mobile-friendly.** Vermeer wanted a responsive design that would allow users to easily view specialized features across multiple devices, including smartphone, tablet, desktop and laptop.
- **Speed.** Many of the Dealer Center users are in rural locations where internet connectivity can be poor. The site needed to be designed to delivery content quickly without a lot of overhead.
- The client wanted the new site **built in the Kentico EMS MVC platform.**
- **Custom Single Sign-on (SSO).** Easily accessible to multiple systems connecting with Dealer Center.

Challenges

One of the biggest challenges facing BizStream was the **amount of content**, individual products, user data and high-resolution imagery featured on Dealer Center — as well as the **high speed** in which everything would need to load. Creating custom permissions proved to be very complex as well.

- **Integrating with several complex systems** including Single Sign-on (SSO) using Vermeer's custom Shibboleth installation or SAML.
- **Integrating with Vermeer's API** which reaches out to several Vermeer systems in order to aggregate data about Vermeer products.

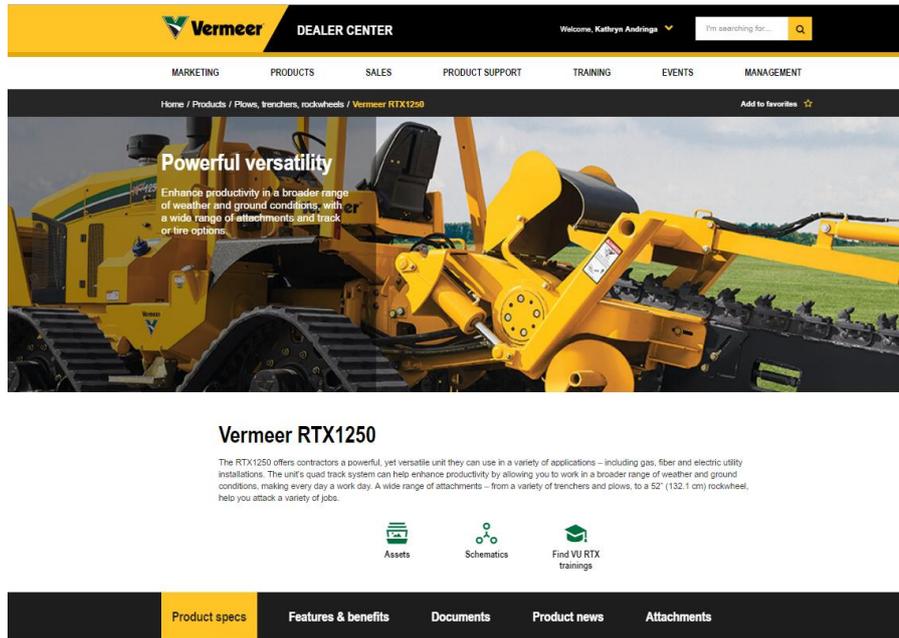
"The new Dealer Center is a great improvement over Compass, especially with the new search function. The new search helps me find exactly what I am looking for much quicker than trying to navigate through different pages to find the right information. Thanks to all those involved in helping make Dealer Center a very useful tool for dealers."

Chad Van Soelen
General Manager
Vermeer Midwest

- **Developing custom permissions** proved to be very complex as each user had different permission settings, down to the individual model they could view. Due to the amount of filters and amount of data, maintaining site performance was challenging.
- Understanding and **implementing search in an intelligent way** that allows users to filter results.
- **Each integration presented unique challenges** as all content needed to be filtered based on permission settings.

Solution

- Security and permissions required very **advanced SQL calls that integrated with Kentico's natural SQL**. The content needed to be filtered many times through multiple SQL calls to get to final output that was then rendered on the page dynamically.
- **Glimpse was utilized to validate and trim a vast number of queries** to the database.
- Utilized a **custom MVC Menu Builder**.
- Utilized a set of **custom MVC Widgets**.



Results

The main goals were to create a content-centered, searchable site without losing existing use of shared applications within the site. The most widely accessed pages that prove goals are met include:

- Search
- Dealer applications
- Product centric pages

- Training

Key Criteria for Choosing Kentico

- Ability to Integrate external systems and APIs into the solution
- Kentico's ability to handle security and permissions
- MVC.Net
- Vermeer had some previous experience in the Kentico platform
- Comparison with other content management systems identified that Kentico met the requirements needed

Testimonials

"BizStream has been a crucial development partner working through all of the complexities of data connections, security and content throughout this project. They were always willing to partner and help us find a way to make the project succeed." – Shannon Graham, Vermeer Corporation, applications development manager.

"Dealer Center helps put all the information coming from the factory into one easy to use platform. Whether you're looking for product specs, service IK kits, or Vermeer University information – The search capabilities in Dealer Center make it easy to find it all." - Kelli Meyer, Vermeer Texas-Louisiana

"The new product-centered Dealer Center makes it easier to find information about a certain machine all in one place. The new design is easier on the eyes and makes navigation easier. All in all, a step in the right direction." – Henrik Hedberg, Several Oy (Finland)

BizStream

BizStream builds web, online marketing, and software solutions. The company specializes in ASP.NET, SQL Server, and Kentico CMS and Kentico EMS development. Alongside custom development services, BizStream has three Software as a Service (SaaS) products including YouthCenter, CaseStream, and Toolkit for Kentico. Founded in 2001, the BizStream team comprises more than 30 developers, designers, digital specialists, support staff, and contractors. BizStream is located just outside Grand Rapids, MI.



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