AgGateway Case Studies

Central Farm Service Uses ADAPT to Streamline Processes in Agronomy and Operations

Background

Central Farm Service (CFS), founded in 1937, is a cooperative based in Truman, Minnesota, serving growers throughout the state. The coop offers products and services related to seed, feed, crop protection, crop nutrition and energy. It also produces and markets swine, beef, calves and livestock products. It provides a broad range of precision agriculture and agronomy services.

Challenges

CFS wanted to streamline its workflow process to improve efficiency – specifically, the ease and speed at which it could access accurate information. It's common for agribusinesses to work with several different data platforms in various aspects of their business – from evaluating field data to purchasing crop inputs. But the industry has grappled with how to help growers and their partners easily share data between these systems. When it's not possible to share data electronically, users can become confused about how information matches up from one system to another, resulting in additional manual operations, inaccuracies and delays.

CFS focused on communication between two different farm management information systems (FMIS) – featuring proprietary data formats – which the co-op uses in two different parts of its business. **CFS's agronomy department** uses Premier Crop Systems to create farm field-level nutrient recommendations (often site-specific recommendations that vary across the field). At the same time, **CFS's operations department** uses SSI/Agvance to execute work orders (custom nutrient application for its grower customers).

The FMIS vendors needed to find a common format or approach to translate field operations data for use in multiple areas of CFS – so the two systems could effectively talk to each other. An ideal approach would be supported globally by other companies and could evolve to meet business needs. From a software development perspective, the ideal was an Open Source Software

Key Points

- Enormous increase in efficiency as information is exchanged between CFS departments.

- Easier to process data and create detailed orders for growers.

- Departments involved are able to rapidly access accurate information.

- In the integration between the two FMIS companies, AgGateway's ADAPT provides the ability to map data objects a single time.

- ADAPT is structured to allow evolution based on business needs; the ADAPT community seeks to accelerate data translation capabilities available for all companies. *https://adaptframework.org*
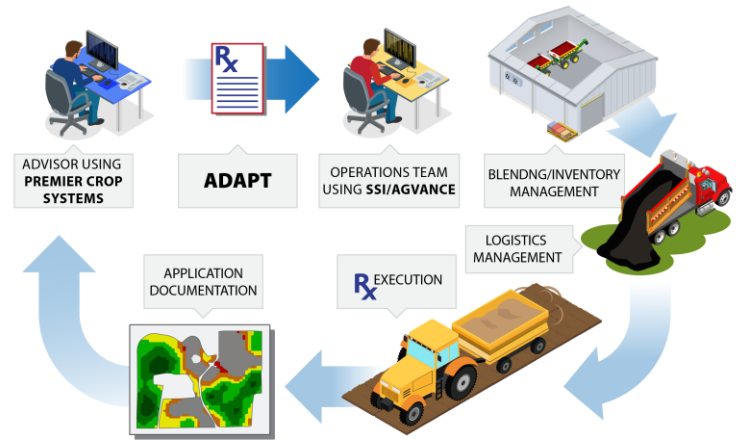
framework with the appropriate licensing and community support.

Solution

Premier Crop Systems and SSI/Agvance took the initiative to address this challenge, through their active participation in AgGateway's ADAPT framework project. ADAPT (Agricultural Data Application Programming Toolkit) is an open-source project designed to

make it easy for various hardware and software systems that growers use in their businesses to seamlessly communicate with one another in a shared data format.

CFS is one of the first companies to benefit from implementation of the ADAPT framework. Using ADAPT, each FMIS company translates the field operations data of interest, such as Grower/Farm/Field ("hierarchy") names entered by the user of Premier Crop Systems; Field Boundary (geospatial data) entered for the relevant hierarchy; total product required to be applied, including nutrient type and quantity of nutrient needed; and product information, making it easier to identify the appropriate product inventory to use.

Each FMIS company added appropriate triggers to the system so that CFS users can identify a recommendation created in Premier Crop that they want to make available in SSI/Agvance. This includes the ability to import the recommendation into SSI/Agvance in a way that makes it easy for the user to accurately "map" the relevant hierarchy between the two systems. For example, the agronomy department might treat three brothers who farm together as one listing – e.g., "Smith Farms", while operations might list/invoice each brother separately since they each control different subsets of farm assets.

Results

Using ADAPT provides a smoother CFS process in terms of the time it takes to enter a ticket, and ensuring that correct fields are selected and that accurate rates are applied. "The agronomists who used the new approach this fall [2018] were really happy with how much simpler it made their process for getting tickets in," said CFS Precision Agronomist Ashley Schmeling.

Added Courtney Severson, CFS Regional Sales Agronomist, "Being able to import the fertilizer I wanted to spread into Agvance from Premier Crop Systems made the whole order come together quicker and saved me time compared to how we have typically done things. I found the account linking to be very easy. Teaching the agronomists how to do it was easy as well, because the steps make sense with how someone would think through a process like this."

Find more information on AgGateway's ADAPT framework at https://adaptframework.org.

About AgGateway

AgGateway is a non-profit organization dedicated to the expanded use of information to maximize efficiency and productivity, promoting and enabling the industry's transition to digital agriculture. www.AgGateway.org