General Motors 2
Improving Bill of Process Collaboration and Workflow
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Overview
There are two main documents GM uses to manufacture their Powertrain components: the Bill of Process (BOP) and Bill of Engineering (BOE). The main focus of this project is to improve the method of collaborating on the BOP in a unified way for all its users, and making a more streamlined and effective way to review and approve BOP updates. The current system of collaboration has a few flaws. It needs to be open for collaboration by many people, instead of having to push everybody’s changes through one person responsible for compiling the entire BOP. The current system takes a while and has a greater chance of error, taking away valuable time that could be otherwise spent on more important matters. Access restrictions also need to be put in place. Once these changes have been incorporated and compiled into a BOP, the review and approval process takes place. There is no unified way of doing this as of now. Each group within Powertrain handles this process in a slightly different manner, and it can take anywhere from weeks to months for a BOP revision to be approved. A unified, electronic system for interested parties to review is a necessity. One document can be hosted in one place and approval or comments on changes can be made in one place.

Objectives
- Revision Control
- Access Restrictions
- Simultaneous Editing
- Electronic Approval
- SharePoint hosted “Master Copy”

Approach
By leveraging SharePoint, in addition to Word, Excel, and embedded graphics, a requirements management system can be created. That was the scope of this project: to create a robust requirements management system with the tools provided by SharePoint. The format of text within the site was standardized to only Excel documents. Graphics may be placed within the document, but no documents formatted in Word would be accepted. This created unified formatting and created a singular layout for all groups. The SharePoint site was then revised to limit document access to only the parties necessary and an approval process was created. A workflow within the site sends automatic emails when a document is up for approval to all editors that need to approve or deny the changes. A track changes option was also enabled to help find even the smallest of changes. Utilizing the options that SharePoint has, a product was created that will help GM streamline the approval and creation process for their Bill of Process documents.

Project Outcomes
The final SharePoint site creates an individual space for each design unit in the Powertrain group. It provides a streamlined system of approvals and hosts all of the necessary documents in one area. This meets the demands of the customers without incurring any new software expenses.