Configuring and Manufacturing highly complex and extra long BOM using Oracle Configurator: A Customer Case Study

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Agenda

- Introduction
- Challenges/Requirements
  - Segregating the Order Entry Process from the Engineering or Manufacturing Process
  - Enable configuration of a Huge and Complex Bill of Material
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- Key Performance Indicators for NYB
- Lessons Learned from Prototype
- Business Benefits for NYB
- Question & Answer

New York Blower

New York Blower is an industry leader in manufacturing premium-quality, engineered fans and blowers to the industrial and OEM marketplace. NYB carries the most complete product portfolio in the business and our products are distributed through an extensive worldwide network of over 300 experienced and knowledgeable representatives

The New York Blower Company carries one of the most complete product lines in the air- movement industry and, for this reason, NYB is able to engineer individual, flexible, customized solutions that meet the specific requirements for unique applications

Keste

- Oracle Configurator experience since inception
- Oracle's premier Configurator partner
- Strong relationship with Oracle Architecture and Dev Team
- Coordinator of Oracle Configurator – Special Interest Group
- Worldwide presence
  - Offices in Dallas, TX and Hyderabad, India
  - Customers in North America, Europe, & Asia
- Lean yet efficient project approach
- Business Development through Reputation

Challenges/Requirements

- Segregating the Order Entry Process from the Engineering or Manufacturing Process
- Enable configuration of a Huge and Complex Bill of Material
- Pass additional information downstream without increasing the BOM size/order size
- Leveraging customer experience

Key Performance Indicators for NYB

- Complexities in the fan model size
- Number of orders/day or lines/day
- Business users of configurator
- Number of Special and Change Orders
- Business Process flow from Quote to Shipping prior to Configurator Implementation

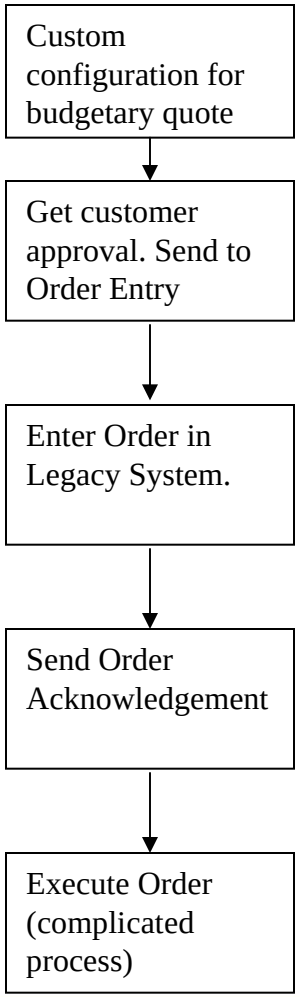
Lessons Learned from Prototype

- Loading User Prompt Model through scripts/API's proved to be more efficient
- A Standard template was created to capture the following
  - User Input Non BOM Model and user selection validation rules
  - BOM and Routing Item selection and validation rules
  - Test Cases with user selections and expected Manufacturing BOM structure
- Modification in Rules driving BOM Items since Prototype helped in improving the performance
- Model BOM population technique was not always able to configure valid user selections

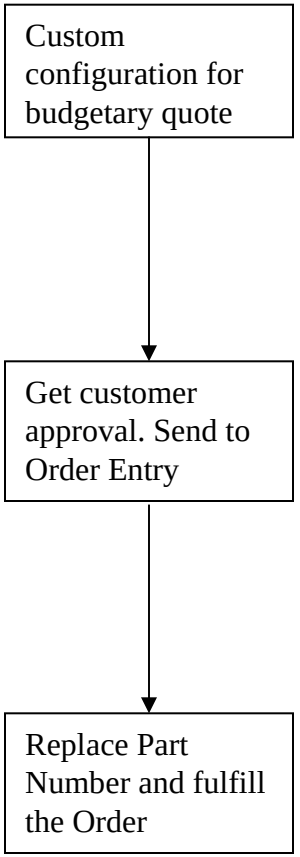
Segregating the Order Entry Process from the Engineering or Manufacturing Process

- Techniques used for capturing configurations requiring Engineering Intervention
  - Placeholder items are used for configuration requirements that require processing through engineering
  - A concurrent program is used to create new part numbers in the Inventory
  - A concurrent program will update the Star BOM's Placeholder Item with either the newly defined or existing part numbers

As - Is Process



To - Be Process



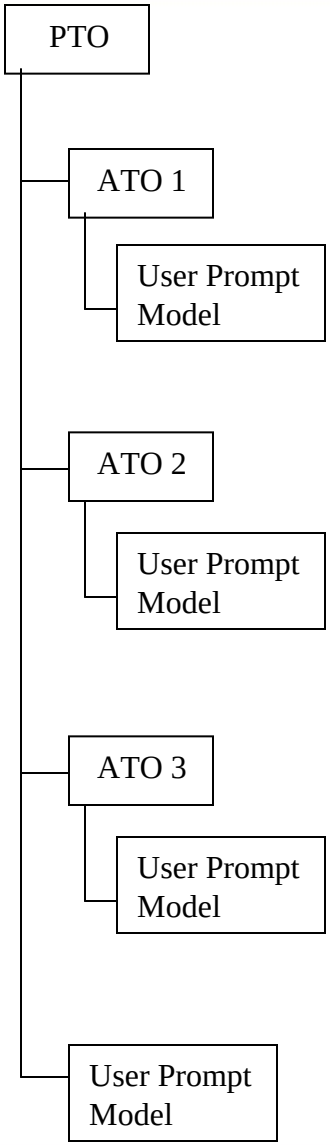
Enable configuration of a Huge and Complex Bill of Material

- BOM Modeling techniques to enhance Configurator functionality
  - A few suggestions were made in line with the abstract modeling technique rather than explicit
  - Making Option Classes required as opposed to optional
  - To meet a specific business requirement routings were driven through specific BOM items

Enable configuration of a Huge and Complex Bill of Material

- Using various options like DYNAMIC INSTANTIATION to improve Configurator Runtime Performance
  - Based upon User Inputs only one of the three ATO models gets invoked.
  - Copying User Input Model and its selections underneath the instantiated ATO Model eliminated incorrect BOM data issues.
  - Selection of rule type helped in optimal execution of the development phase of the project

High Level BOM Structure



Pass additional information downstream without increasing the BOM /Order size

- Utilizing techniques like ATTRIBUTE MAPPING to generate error free data flow for downstream processes
  - Using attribute mapping to capture User Inputs which can then be used by downstream processes .
  - User Inputs captured through mapping was used for pricing of items.
  - Based upon the User Inputs in Configurator description of configured ATO Item gets updated

Leveraging Customers Configurator Experience

- Current Configurator Design ensures valid configurations without being affected by the BOM data issues ensuring a smooth order entry process flow
- Custom SQL scripts provided to the end user enable in pinpointing data issues in BOM identified during order placement process
- Design of Configurator reduces the learning curve in using the application

Positive Impact of configurator solution on NYB's overall enterprise solution

- Accurate Bill of Material
- Better management of inventory
- Better Scheduling and Forecasting
- Better Costing
- Reports on Sales across product families and Costs
- Intelligence Reports

- Question & Answer

THANK YOU !!