Avout

Automation, End User Engagement, and Business Process Improvement

The Recipe for R12 Implementation Success

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Overview

There are many ways to improve the overall success of an ERP implementation. Taking advantage of automated processes and engaging end users will help increase the probability of success during the implementation; and revisiting processes after the go-live will garner even more kudos from the business community. This white paper introduces tips, tools, and techniques used by an automotive parts manufacturer during an Oracle E-Business Suite R12 implementation.

The manufacturing parent company had grown significantly through mergers and acquisitions over the last three years, and the IT community had inherited vast amounts of data in seven different business systems. The new implementation would replace disparate and redundant systems with a fully integrated system, standardizing on a single technology stack. The success of the ERP was paramount to the company's ability to continue to grow and meet the demands of a growing customer base.

The client's IT leadership engaged Avout to help them implement a solution to consolidate the data and standardize on a single application platform. The client project team consisted of key resources from the financials, manufacturing, and distribution communities as well as a large IT team. The effort was led by three project managers; one from Avout and two from the client side.

Conversion of Vast Amounts of Data

The conversion effort associated with this implementation was rather complex; with 31 different master-data sets and seven systems of record. Three of the manufacturing systems were not integrated into the client's corporate systems. In total, the project team needed to extract, cleanse, transform, and load 137 different data files.

The redundant systems were a result of recent corporate acquisitions and data governance was not yet in place. The three silo systems were operating on the same software, but they were configured differently. The systems had similar data fields, but were being used to store different types of data. The protocol for defining a Bill of Materials was inconsistent and the differences were not documented or well known. Creating a new corporate standard for definition of key data elements such as product categories, build protocols, and base unit of measure would be critical to the success of the conversion effort.

The project was progressing on track until it came time to load the legacy data. Preparations for Conference Room Pilot Two, where business processes are demonstrated with converted data, was falling behind due to significant differences and inconsistencies in data. The team took a step back to assess the legacy data and the conversion strategy. The conversion approach needed to be revised to incorporate additional steps to address data issues.

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> *The team would need to extract, cleanse, transform, and load 137 different data files.*

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The first step was to assess and quantify the data challenges. The program management team built a business case that stated that the only way to solve the data integrity and overall inconsistency issues was to engage additional business support. The end users understood their data and how it was being used to support the business, and were therefore most qualified to assist in the manual cleansing and transformation of the data. Program managers met with executive management to elicit their support and request key resources from each department. The data conversion was not an IT programming problem, but rather an organizational issue that required support from the business community to resolve. The team created a data transformation strategy that relied heavily on business community insight and data cleansing efforts.

The transformation strategy included the creation of three data management (DM) teams. Each team included resources from the technical, functional and business communities. Teams focused on a different subset of data: product/item related data, customer related data, and supplier related data. A consistent approach was utilized to address the data integrity issues. The DM teams assigned specific business owners for each data set. The business owners were accountable for the validation of source systems, and the identification and resolution of all data integrity issues.

In addition to the data management teams, data governance teams were assembled and authorized to define transformation rules for the conversion effort and, more importantly, the process for ensuring data quality standards going forward. Each team focused on eliminating obsolete data, defining consistent data value sets and formats, and scrubbing the data to ensure a consistent approach across all manufacturing and distribution facilities. This marked a fundamental change: data ownership was being transferred from the IT department to the business.

Transformation Strategy

Eliminate obsolete data	→	Define consistent data value sets & formats	→	Scrub data to ensure consistency across facilities

The conversion data and migration processes matured, and the team became more confident in their ability to consistently extract, transform, and convert the data for User Acceptance Testing. By including the business leads in the process, the conversion manpower tripled in size and the ownership of the effort became organization-wide. This was critical to adoption and built a stronger post-production support structure.

Automating Conversions Using More4Apps

The data conversion effort included transferring 137 different data sets into the new system. A large percentage of the loads would be handled programmatically, but a portion of the data would need to be scrubbed and entered manually. Again, since the end users understood the data best, they were most
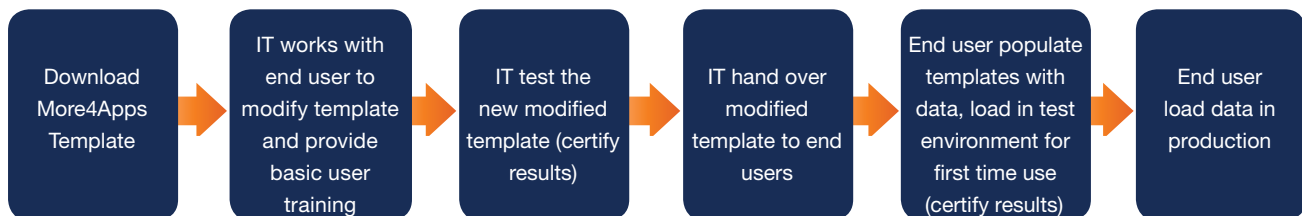
qualified to assist in the manual transferring of this subset of data. An automation tool would provide significant value during the conversion effort. The team researched automation tools and focused on those that would have a minimal learning curve. The end users were accustomed to Excel, which made the choice of an Excel-based solution a natural fit. The team decided on More4Apps.

The client purchased various More4Apps licenses, including:

AR Receipts Wizard	Price List Wizard
BOM Wizard	PO Wizard
Item Cost Wizard	Sales Order Wizard
Item Wizard [Includes Extension Wizard]	Upload Wizard
AP Invoice Wizard	Routing Wizard
Price Modifiers Wizrd	

The More4Apps templates and wizards are very robust and capable of uploading a significant amount of data specific to each business process. To ease the adaption and learning curve of this new tool, Avout limited the data fields to mandatory and process-specific data elements. Business users were trained on each template and the use of the upload wizard. Automation processes were validated and finalized during the User Acceptance Testing effort. The last step integrated the templates into data governance processes for post-production data maintenance.

Download More4Apps Template → IT works with end user to modify template and provide basic user training → IT test the new modified template (certify results) → IT hand over modified template to end users → End user populate templates with data, load in test environment for first time use (certify results) → End user load data in production

The following sections provide specific business cases for how three of the More4Apps templates and wizards were used to improve the overall quality of data and significantly reduce the data entry times.

Pricing Modifiers Wizard

In the automotive business, product and pricing are often specific to a given customer. In this client's case, there were over 200 pricing modifiers, with more than 12,000 modifier lines to be loaded. Pricing-related data entry was needed for initial conversion and for yearly pricing adjustments. The volume of data made manual entry infeasible. A repeatable, automated, and straightforward process was required.   The team recommended the More4Apps Pricing Modifier Wizard.

The team translated the pricing policies and requirements into Oracle Advanced Pricing setups. A More4Apps Pricing

Instead of taking 4-5 hours to manually input a modifier with 1,000 lines, the pricing department can complete the function in less than 30 minutes.

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Modifier template was developed for each unique pricing solution. The business users were trained on the use of the template. After completion of the load, users validated the results via the standard Oracle forms and downloaded the results to confirm the values. Instead of taking 4-5 hours to manually input a modifier with 1,000 lines, the pricing department is able to complete the function in less than 30 minutes. End users continue to utilize these templates to maintain pricing. The use of the More4Apps tool has substantially increased the data accuracy and overall productivity of the pricing department.

Item Load Wizard

A new product launch is a major effort for any manufacturing company and requires the definition of the manufacturing process, determination of margin goals and customer pricing, creation of a sales campaign, and the introduction of the product to ordering and distribution processes. The system setup steps to support each of these business processes can be extensive. A single finished product might include as many as 16 different configuration updates and the creation of 20 new items. The process for creating items for this client was taking longer than a week which was unacceptable. The client needed a streamlined process in order to support frequent product launches. The implementation team allocated a considerable amount of time to determine how to simplify a process that required input and setups from multiple departments.

The Avout team worked with the end users to carefully modify the standard More4Apps Item Load Wizard templates. Now, all but two item setup steps are performed using More4Apps, and what used to take a full week to enter manually is now complete within one day.

> *Item setups that used to take a full week to enter manually can now be done within one day.*

Item Load Process

Step #	Activity
1	item and category definition in Master Org (More4Apps)
2	assign items to orgs (More4Apps)
3	define BOMs (More4Apps)
4	define routings (More4Apps)
5	load item costs (More4Apps)
6	load item transaction defaults (More4Apps)
7	load item primary pick locations (More4Apps)
8	load caliper cross references for core returns (More4Apps)
9	update planning attributes (More4Apps)
10	load UOM intraclass for Pack (More4Apps)
11	load customer item cross references (More4Apps)
12	load OM item price list (More4Apps)
13	load PO item pricing - BPAs (More4Apps)

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Step #	Activity
14	load ASL (manual)
15	define sourcing rule (manual)
16	load sourcing rule assignments (More4Apps)
17	change item status (More4Apps)

Customer Wizard

A majority of this client's orders come in through EDI, emailed spreadsheets, and phone calls. Customer service representatives (CSRs) field calls regarding product availability, order status, and order entry assistance. Order entry and fulfillment requirements are unique to each customer and many orders must be manually processed. A single customer transaction can end up being thousands of lines long, making manual entry time consuming and error-prone.

> *Overall, the Customer Wizard reduced the time required to process a 1,000 line order from several hours to 15 minutes.*

The team chose the More4Apps Upload Wizard, which enables CSRs to populate a staging table with three key fields: order number, item number, and quantity. A personalization was added to the form that utilizes standard Oracle APIs to take the data from the staging table and load it onto the sales order lines. Overall, the Customer Wizard reduces the time required to process a 1,000 line order from several hours to 15 minutes.

Modifying Business Processes Post Go-Live

Several months after the Oracle E-Business Suite system was up and running, the support team was still receiving an above-average number of work tickets. Upon further analysis, they found that a large portion of the issues had to do with business process challenges and basic training issues. The end user community had attended training and even had User Productivity Kit (UPK) sessions available to them, but they were reverting to the old way of handling the business. They were performing tasks using legacy processes that had become obsolete when the new technology was put in place.

In order to resolve the lingering issues and to further gain benefits from the use of Oracle E-Business Suite, the client requested additional support. They again turned to Avout to supply a resource that had years of industry, business process, and technology experience to reinforce training and to analyze the challenges specific to each distribution center and manufacturing location.

Below are three examples of process improvements that significantly decreased work tickets.

1. **Release jobs only when components are available.** The floor was releasing jobs to rework without knowing whether all the components were available, creating a stack of backorders because of missing components. By adding the standard Oracle component pick release step into the client's process, they

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ended up only releasing and reserving quantities that could be worked on, thereby saving wasted time searching for product and dealing with backorder issues.

2. **Update work completion hourly instead of daily.** Because the distribution center was updating the completion of work at the end of the day, the inventory counts during the day were inaccurate. The system might show Item B in location 12, when in fact someone already picked the item and moved it to another location. To solve this issue, the transactional updates were moved from the distribution center office to the warehouse floor where they were performed every hour. Inventory counts were now more accurate throughout the day, improving the efficiency of the product picking processes.

3. **Change manual entries to drag-and-drop.** When work-in-process (WIP) jobs were completed, users were manually keying the completion. This was an inefficient and error-prone approach. To improve the process, users were trained on how to drag and drop completions utilizing the WIP workbench. The training session resulted in the reduction of data entry errors and improved overall data entry time.

Conclusion: Lessons Learned

Looking back on the project, valuable lessons related to end user engagement, automation, and post-go-live process improvement were identified. These lessons can help the greater Oracle community with their own R12 implementations.

Data Management Teams For a project that has a multitude of disparate systems with unique master data, institutional knowledge from a technical and business perspective is critical. The creation of the end user Data Migration teams was essential to understand, transform, and migrate the legacy data.

Repeatable Processes The validation of the conversion process requires multiple iterations of pulling, transforming, and loading data. The use of tools that extract, transfer, and load (ETL) data can greatly assist with data conversion. Additionally, the use of standardized upload templates will enable the end users to easily provide the data in the format needed to save time, decrease the risk of errors, and prove a repeatable and validated conversion process.

Tools When evaluating third-party software that will be used by end users, always consider the learning curve. The more time it takes to learn a tool, the more time it will take for users to adopt it. On this project, only Excel-based tools were considered since the user base was already familiar with Excel.

Training The train-the-trainer approach was used for this project, with each different super user responsible for defining the training plan and material. While some super users were able to address the training needs of the end users very effectively, others needed IT to be more engaged with end user training.

Post Production Review The project does not end when ERP goes live! Post go-live improvements are essential as the system goes into production. It is important to set expectations that there will be bumps after go-live, and that time is allotted to address and correct those.

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About Avout

Avout is an Oracle Gold Partner that provides IT projects and staffing, Oracle license sales, cloud integration, and managed services to help organizations identify, implement, and support solutions that streamline operations and build dynamic competitive advantages. Avout recently joined forces with Pacific Crest Technology to meet the broader IT needs of its clients, adding 18 years of global solution delivery and CIO-level advisement in high-growth industry verticals to its Oracle expertise.

Using a vast network built over 25 years in the technology space, Avout gives clients access to some of the most highly regarded consultants in the world without charging the overhead of maintaining a bench.

For more information about Avout's experience implementing Oracle E-Business Suite R12, please contact Janet.Dahmen@Avout.com.

About the Author

Janet Dahmen is in charge of Avout's Project Management Office, including validating the use of standardized best practices across accounts, aligning implementation methodologies with best practices, and integrating with client governance. With more than twenty years of management consulting experience and a proven track record governing and leading large-scale delivery teams, Janet excels at bringing together client needs and leading technology capabilities into one cohesive solution. She has built and led PMO offices for multiple clients and consulting companies, delivering $30+ million programs on time and on budget with teams exceeding 115 members.

Janet began her career in the Civil Service and Healthcare industries, two sectors that are known for their stringent regulations and quality requirements. She developed and implemented relational database systems and managed multiple conversion efforts. In 1996, Janet joined TUSC (now Rolta TUSC), where she managed dozens of development projects across multiple industries, directed testing for an R-12 upgrade effort, and eventually became a practice-level Partner, in charge of creating TUSC's Project Management Office and conducting quarterly audits on $1+ million projects.

Prior to joining Avout, Janet provided executive management and oversight on Public Secgtor client engagements at AST Corporation, ensuring the quality of deliverables from point-of-sale through project close. She instituted provisions for continual process improvement and supported project staffing. In the past six years alone, Janet has served as the Project Governance Director for over 35 accounts and led Executive Steering Committees for 11 implementation teams. Over the course of her career she has been a mentor and coach to 32 Project Managers.

Janet holds an Associate's degree in Computer Programming and a BS in Business Administration from Columbia College. She is a PMI-certified Project Management Professional (PMP) and a member of PMI's International and Chicago chapters, and has been a session speaker at Oracle IOUG, RMOUG and Collaborate.

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