HENRY Technologies White Paper

BPCS Reimplementation

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Introduction

1. We have been using our current ERP for years and it works (as I use it) and if we change, my job will be harder and ……!
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4. It's not the system, it's our people and ……!
5. Our people need training in the system but where do we find time and ……!
6. We are not generating the results required and everyone is working hard and ……!

How do you determine how the ERP system was intended to be utilized based on these concerns? This white paper describes procedures, techniques, and recommendations that can address your concerns.

> Andrew Williams of Henry Technologies says, "We were in a position of not understanding the power of BPCS or how it should be correctly implemented. VIRTUTEM educated us on BPCS and held our hand through a successful re-implementation."

Do these situations sound as familiar as Andrew found?

Overview

Today's business climate demands that enterprises maintain a competitive edge. To realize an advantage, companies must be able to create innovative, high-quality products and services and quickly bring them to market. At the same time, the business must optimize profitability by improving efficiencies, increasing productivity, and driving down costs.

For many companies, the ERP software solution is a key factor in the ability to compete. As companies evolve, the ERP system needs to respond to changes in the marketplace and within the organization. The existing ERP software system must continually evolve to support the business and organization. In many cases, the system was installed and implemented years ago and is still operating with the same behaviors and processes as first implemented. Combine the ERP systems setup/functioning with human resistance to change, and the "system" becomes inadequate. Reining in these issues allows re-implementation to have measurable improvement for the company's bottom line.

Considerations

As managers plan for the future, out-of-date applications, heavily modified systems, and unmanageable system growth can drive the need to upgrade to a new platform. But before companies run off and purchase and implement a very risky new ERP system, why not take a look at re-implementing the current system?

The following issues are discussed in this paper:

- Reimplementation Benefits and Improvements
- Risks (new vs. reimplementation)
- Costs
- Managing Disruptions

Reimplementation Benefit and Improvements

1. **Training** time can be spent improving the KPIs of the business and not the technical understanding of the users.

2. One major benefit of reimplementation is that **users already know much of the system** in terms of navigation, screens, functions, and processing, whereas in a new system, everything is foreign. The learning curve could be steep. It also could be a disruption to the business that might be fatal. The most common directive given to those tasked with system projects is "Don't aggravate the existing operations."

3. **Personnel costs**. Users can spend training time actually improving processes within the software, not just learning how to navigate and input data. The existing IT staff knows how the system works and does not need to take time away from running the day-to-day operations.

4. **Software modifications cost time and money**. Over time, it is common for ERP systems to be lightly modified to address ever-changing business needs. These modifications require lengthy analysis during a new implementation, whereas during a reimplementation, the cost and time are much less.

Risks

1. Total costs and disruption to the business are dramatically reduced in a reimplementation. Risks can be dramatically reduced when compared to implementing a new ERP.

Cost Management Techniques

1. During a reimplementation, companies often **backfill their in-house IT staff** with fully qualified consulting firms. Consultants are able to provide the continuity of running the existing system while the staff is concurrently trained on how they can maximize it. If the staff is stretched too thin, mistakes are made…and chances for a successful reimplementation decrease.

2. It is often beneficial to **designate one person to determine which modifications should be approved to the existing system** and develop the methods to determine how modifications are approved or disapproved. This person can be either an in-house manager or a dedicated consultant assigned to the company.

3. Many companies **contract with consultants to be an extension of their IT departments**…a "faucet on, faucet off" approach. When the workload increases yet aren't significant enough to require hiring a new full-time employee, companies often look externally on an as-needed basis to handle the overflow. A contracted consultant is there when needed for a specific time and purpose.

a. Often, the supplemental external staff is necessary to fill a higher or different level than the existing staff, for example, IT training, web development, mobile applications, etc.

4. If a consulting firm is selected to manage the costs associated with reimplementing an ERP system, that firm needs to be involved in **dialogue with the decision-makers from the very start**. It is only possible to hold down the costs of the existing system if everybody knows the parameters.

Managing Disruptions.

1. **Get the users involved.** In general, when users are included in the reimplementation, the end result is a positive one. Users need to claim ownership during a reimplementation, both in the design and in the "go live."

2. **Communicate, communicate, and communicate.** This is not the technique to overlook when preparing the project plan. Executives, managers, and staff must be kept current on project variables, schedules, and costs.

3. Minimizing disruption goes hand-in-hand with containing costs. Companies cannot sacrifice one for the other. When the plan is thorough and agreed-upon, it must be followed. If there are changes to schedules or unforeseen costs, modifications to the plan must be made with buy-in by all.

A Case Study: Henry Technologies (Chatham, IL)

The Henry Story

Henry was founded in 1910 by American inventor Guy Henry, who began the company in Chicago, Illinois making gas lanterns and accessory gauges for the Model 'T" Ford automobiles. In 2005, Hendrick Holding purchased Henry, giving Henry the financial backing to improve products, increase market share and develop new opportunities.

The "Before" Situation

Henry Technologies' Chatham plant is running Version 8.3 of BPCS. This was installed in November of 2004 (after migration from BPCS Version 4.05 CD). Minimal BPCS customizations are in place. A majority of the custom development is for operational reporting and is done in an offline Access database. Minimal training took place for the new version of BPCS (which had significant functional changes from the prior version).

Significant staff changes had occurred at Henry Technologies since the original BPCS implementation as well as the subsequent upgrade in November 2004. A majority of users knew only what they needed to know to transact their part of the business. They had not received formal product training. Very few business champions existed that possessed a full understanding of both business processes and how to manage this within BPCS. Several areas were identified where the setup of controlling information was incorrect. Staff had knowledge of the screens they were using but did not know the logic behind why the fields were set. This was especially true in the planning fields where errors being made were affecting plant operations. The plant was running at overcapacity, but customer orders did not have priority in the planning logic.

In 2014, the decision was made to re-implement BPCS. Henry had a talented staff fluent in BPCS. Their daily workload, though, would not allow them to work on the project full time. In response, a schedule was developed where the staff would perform their jobs in the morning and work on the project in the afternoons.

Why did Henry RE-Implement?

The current ERP system was implemented and operating, so why spend money on employee's time and for consultants to support a reimplementation?

Henry realized the initial implementation did not meet expectations. After many years of operating the system, and coupled with employee turnover, the current understanding and operation of the system were not resulting in the business metrics required to sustain the business. This white paper discusses the benefits of Henry's re-implementation and gives the reader information on the resources and services available from VIRTUTEM to assist companies during an ERP reimplementation.

Enter VIRTUTEM

It was important to Henry that its consultants be experienced project managers, with exceptional manufacturing backgrounds and with strong BPCS expertise. To find all three requirements within one consulting firm is a model that most companies desire.

> Williams says, "VIRTUTEM is easy to do business with."

The Managing Director wanted several quick successes to allow the employees to gain confidence in the project and the changes that were coming. He wanted VIRTUTEM to work on the "low hanging fruit "areas for quick improvements. Planning, Forecasting, Inventory Control, and Shop Floor Control were identified as modules needing immediate attention to correct errors and take advantage of unused functionality. It was decided that the project plan offered by VIRTUTEM start as soon as possible. All employees were anxious to see this project begin.

Areas of immediate concern included:

Order Policies. Most Items were set incorrectly. This caused extra (smaller) orders to be suggested, resulting in additional setup expenditures and/or time lost to manually reset the order to a different quantity.

1. Lead Times. There did not seem to be sound logic in setting the lead times, either for shop orders or for purchased orders. They were being manually reset, but this was a time-waster and led to errors.
2. Country of Origin. There was an opportunity to gain on-duty drawback if the fields were set correctly for proof.
3. Dynamic Minimum Balance. The use of this functionality could reduce the on-hand inventory while improving stockouts.
4. Forecasting. Henry was given two options regarding more appropriate forecasting. They could use the BPCS forecasting module or use Virtutem's experience in setting up forecasts to more accurately predict requirements. For example, pre-production of items in spring could increase sales for the following summer when the plant is over capacity.

5. Capacity Planning. Most of the information was set up for capacity planning. A few additional setups allowed system planning to be performed.
6. Available to Promise. Having capacity planning in place allowed available-to-promise to be used effectively. This improved on-time shipping to customers.
7. Purchase Order Consolidation. This was a much faster method of creating Purchase Orders using BPCS planning to suggest planned orders (with Microsoft Access).
8. Set Up WIP Warehouse, Locations, and Transactions. There was no current control of work-in-process inventory/transactions. Having control leads to a reduction of work in process inventory.
9. Cycle Count. There were no cycle count procedures. Using cycle count reduces inventory, especially for slow and non-moving inventory. A longer frame objective was to eliminate physical inventory (and loss of production while physical is performed).

Henry's Realized Benefits (as reported by Henry)

Henry reported the following benefits after the BPCS reimplementation project. The benefits were reported to VIRTUTEM approximately two months after the end of the project.

> After phase 1 of the project Williams says "VIRTUTEM has been critical to our progress to date and continue to be a valued partner"

FORECASTING

The intent of the forecasting activity was to understand if the BPCS forecasting module could be used at Henry Technologies to predict future orders. The objectives were as follows:

- Reduce dependency on Excel reports

- Improve forecast accuracy
- Forecast for a longer period of time
- Reduce effort without increasing cost

The results evaluated are listed below:

- The forecasts previously generated by Excel are no longer used.
- The BPCS-generated forecasts are at least as accurate as of the Excel forecasts.
- The BPCS forecast extends for two rolling years as opposed to the two to three months that were generated by Excel spreadsheets. This allows seeing beyond the peak periods of the year.
- There is substantially less work required to maintain the BPCS forecasts.

The results are that the BPCS Forecasts are exclusively used to predict future orders.

PLANNING

An extensive effort was made during the reimplementation project to upgrade the fields in the Facility Planning Data Maintenance Program. (MRP140) The planning logic that was previously determined by these fields was deeply flawed. The objectives for improvements were as follows:

- Reduce dependence on Excel Reports that were being used to determine material requirements
- Reduce work in process and raw material inventory
- Reduce stock outages

The results evaluated are listed below:

- The Excel reports to determine material requirements are no longer run. Both manufacturing and purchasing requirements are generated directly from MRP programs.
- Both work-in-process and raw material inventory have been substantially reduced. This is proven by charts.
- There is no method in place to track stock outages, but negligible outages are being experienced at Henry Technologies consistently over the past several months.

MANUFACTURING

It was noted during the project that shop orders were regularly released for one month into the future. This was locking up raw materials for an extended time.

- It was recommended to release orders no more than two weeks into the future. The plan called for releasing orders for the current week and for the following week.

The results experience for Henry Technologies at the time of review were as follows:

- Existing Week 26%
- 1 Week to Future 24%
- 2 Weeks to Future 21%
- 3 Weeks to Future 19%
- Greater than 3 Weeks 14%

This is a substantial improvement and has resulted in easier control of the work-in-process inventory.

CAPACITY PLANNING

A lesser effort was expended to see how Capacity Planning could impact Henry Technologies. The expectations were as follows:

- Reduce dependence on Excel reports to determine the impact of displaying capacity planning data

The results observed during the review were as follows:

- The displays provided by BPCS were not as detailed as the Excel reports generated. A decision was made to continue to use Excel. The only difference is that the requirements are input from the forecasts generated from BPCS, which is providing much more accurate data.

PURCHASING

The purchasing area had the same issues in planning logic as the manufacturing area. The objectives for purchasing were as follows:

- Reduce dependence on Excel to determine purchasing requirements
- Reduce the time required to create purchase orders

The results observed during the review are as follows:

- The Excel spreadsheets are no longer used for purchasing requirements. All requirements come directly from BPCS. The fields in MRP140 were set to preplan the

correct lot size and frequency of orders. These are being maintained and changed continuously to improve purchasing accuracy.

- Nearly all raw materials are being ordered by use of the PO Consolidation (PUR640) program. This has resulted in improved purchasing and reduced raw materials inventory. The program also cuts the time to create a purchase order by nearly half.

SUMMARY

Sandy MacDonald (Senior VP Operations) summarizes by saying, "As far as I can tell, the processes that VIRTUTEM helped design and implement are being sustained and we now have a business cycle and business system that are reasonably stable and operational performance that continues to improve. Inventory is trending downwards, delivery performance is improving and there is no sense of firefighting being the 'modus operandi'."

Technologies personnel have embraced the suggestions made during the reimplementation and have adopted the suggestions into their planning and manufacturing logic. The company is recognizing many of the benefits and will continue to do so in the future.

Why VIRTUTEM?

VIRTUTEM offers the expertise to help overcome the challenges associated with ERP implementation. VIRTUTEM consultants support a company's project objectives. They are also able to ascertain possible constraints to the success of reimplementation. Recognizing the obstacles saved Henry (and every VIRTUTEM client), time and money while providing a high value.

For most projects, VIRTUTEM offers a period of extended support, either onsite or on-call, to answer questions and to help complete a smooth implementation of the new ERP. VIRTUTEM makes ERP stability its focus. The customer and vendor encounter with the client will not be affected while your IT staff is training and re-implementing.

Additionally, VIRTUTEM offers each client:

1. Technology acumen
2. Methodology

3. Consultant experience
4. Leadership
5. Ethics
6. Communication

Who is VIRTUTEM?

VIRTUTEM is an agile consulting company, headquartered in Woodridge, IL, that specializes in three of Infor Global Solutions' (Infor) ERP Software; INFOR LX, BPCS, and PRMS. We have a wealth of consulting experience with these software applications in many industry verticals, as well as in Discrete and Process industries. Our consulting services include operational, functional, and technical expertise.

The company's consulting team averages more than 20 years of experience working in these applications. They also offer in-depth knowledge and fluency of the ERP applications gained from being users themselves of the software, or from working directly for the application developers.

In addition to our ERP services, we have an established web applications development presence, developing and supporting web applications for a diverse set of companies. This expertise when combined with our ERP and general business knowledge gives us a unique insight into resolving the most complex technical and business issues using the latest development tools and frameworks.

VIRTUTEM is a team of experienced consultants and technologists that bring in-depth real-world experiences to today's business problems.

The company offers a full range of services and solutions.

SERVICES

- Application consulting
- Technical consulting

- Systems operational support
- Management consulting

SOLUTIONS

- Real-time performance management
- Access to enterprise applications
- Web solutions
- Record archiving
- Business analytics and optimization

For further information on how VIRTUTEM may be able to best serve your business needs, please contact us at

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