



*"The RBE analysis made apparent our SAP application's degree of use and potential for improvement."*

Martin Limpert,  
Director of Preh-Werke's  
Organization and  
User Support

## Project

Reverse Business Engineering caught the attention of Martin Limpert, Preh-Werke, as early as January 1999 at the SAP / IBIS conference in Wuerzburg. In cooperation with IBIS Prof. Thome AG, his company became a pilot customer for one of the first comprehensive RBE analyses. Preh is currently planning to conduct further RBE analyses using the Continuous Business Engineering approach. In cooperation with SAP AG, IBIS Prof. Thome AG was able to transfer the method to SAP R/3 and to implement SAP AG's tool, the Reverse Business Engineer.

RBE is used to conduct business administrative analyses of productive systems. The information required for the analysis is extracted according to specific rules from the SAP R/3 system and then evaluated.

# Tool-based Situation Analysis of a productive SAP R/3 System using Reverse Business Engineering (RBE)

## Procedure

IBIS Prof. Thome AG conducted an RBE analysis in 1999 for Preh-Werke, a company of Aditron AG with headquarters in Bad Neustadt. The analysis was performed with the following objectives:

- **Follow-up documentation** for the SAP R/3 system, productive since December 1, 1998. This was particularly necessary because the SAP R/3 implementation had been conducted primarily by external consultants.
- **Revealing** not used or inefficiently used R/3 functions at Preh.
- **Comparing and harmonizing** the process sequences in both the German and Portugal plants.
- **Preparation for release upgrade** from 3.1i to 4.6.

The first step entailed extracting data relevant for the analysis from the SAP R/3 system with the aid of the RBE ABAP.

These were aggregated transaction data from December 1998 to June 1999 as well as material master and customizing data from June 7, 1999.

During data analysis, emphasis was placed on the following processes:

- Sales and Distribution Processing, especially Shipping,
- Materials Procurement
- to the Production Order and
- Warehouse Management.

IBIS Prof. Thome AG's RBE analysts identified a number of unused functions and revealed unaddressed items that were then discussed with Preh.

## Results

The following results were obtained and conclusions drawn / questions brought up (excerpt):

*MM*

- Good use of the Logistics Information System (LIS).  
→ This is not always the case.
- Little automation in Purchasing.  
→ R/3's potential is not being maximized!
- No procurement of external services, no contracts, no customer inquiries/quotations.  
→ The strengths of the R/3 system are not being used to capacity in this area.

PP

- A number of production orders were created without reference to a planned order.  
→ This must be examined, as these slip by MRP.
- Little to no use of collective functions, especially in Portugal.  
→ Is training necessary here?

SD/MM

- A great many documents are being processed manually, especially for picking and confirming.  
→ This needs to be automated!
- Data for delivery scheduling have been maintained but delivery scheduling is not used.  
→ R/3's potential is not being maximized!

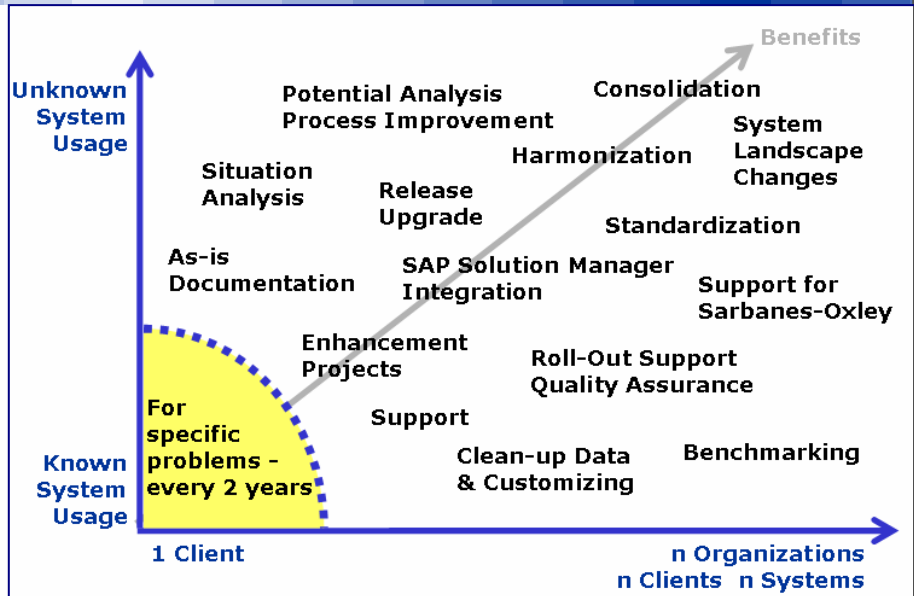


Diagram: Reverse Business Engineering - Scenarios for Implementation

**Benefits**

The RBE analysis enabled us to a large degree to determine which R/3 processes and functions were being used and to what extent. The unusual items discovered were either able to be explained by company-specific circumstances or management was able to confirm that it had been aware of these issues for some time.

New problems were also discovered, to which solutions lay merely in the pointing out of certain R/3 functions. For specific topics we recommended conducting a targeted analysis of the procedure and having the users participate in the analysis.

In addition, we were able to identify several sub-processes that existed but were not being used due to the users' inability to accept them. Here we were able to take concrete steps to correct this problem.

With the aid of the comparison analysis, we were able to iron out the various problems existing in both the plant in Germany and in Portugal.

**Ahead of the Game**

In order to determine or improve the efficiency of an SAP application, specific information is required from the productive SAP R/3 system. Using the RBE tool, this information can be extracted virtually automatically with the aid of the RBE ABAP from the SAP R/3 system, saving

you much time and placing you well ahead of the game.

Following the analysis scan in the Reverse Business Engineer, the results of the analysis are not simply handed over "as is", but are depicted in a business context, which facilitates their process-oriented interpretation.

Specific detailed analyses following the initial analysis afford you profound insight into the SAP R/3 system and, depending on the focus of the project, enable you to draw precise conclusions. Some of the implementation scenarios you may want to consider are shown in the diagram above.

**Latest Developments**

Since the initial implementation of RBE tools at Preh in 1999, we have continued to forge ahead in our development of these tools. In fact, we are now offering the second generation of the RBE tool.

By developing new check rules, IBIS Prof. Thome AG improved the standard scope provided by SAP and added much to it. Also, special analysis requirements led to the development of additional IBIS add-on tools. These tools allow you to conduct targeted evaluations and to generate reports tailored specifically to the project scenario you're working on. Furthermore, some of the Reverse Business Engineer's restrictions have been dropped. For example, it is now possible to analyze client-independent tables, which is particularly important for the implementation scenarios Harmonization, Standardization and Consolidation.

**Technical Basis**

SAP R/3: as of Release 3.0 D.

SAP Reverse Business Engineer:

The Reverse Business Engineer (RBE™) is an offline tool for analyzing productive SAP R/3 systems from a process-oriented viewpoint. The check rules lay the foundation for the analysis. These rules enable the transaction and master data to be evaluated. Based on an analysis, evaluations can be performed to uncover and utilize potential for optimizing the SAP R/3 systems.

IBIS RBE Add-On Tools:

Database analysis tool. The RBE database enables the generation of specific detailed evaluations. Add-on check rules can also be developed and appropriate add-on reports created.

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