How SAP BusinessObjects Planning and Consolidation Delivers Optimized Planning for SAP S/4HANA Finance

July 20th, 2016

Authors: David Dixon, Partner Principal, TruQua Enterprises LLC Scott Cairncross, Partner Principal, TruQua Enterprises LLC



Table of Contents

Executive Summary	3
Key Benefits	3
History and Context	4
Introduction to SAP BusinessObjects Planning and Consolidation	4
Introduction to SAP S/4HANA	6
Deployment Considerations	8
SAP S/4HANA Migration Pathways	8
Standalone Migration Options	9
Case Study Example	10
Return On Investment	11
Conclusion	12
About the Authors	13

Executive Summary

The purpose of this whitepaper is to give readers an understanding of how SAP BusinessObjects Planning and Consolidation when optimized for SAP S/4HANA adds business value. Key benefits and origins are first provided as well as an introduction to SAP BusinessObjects Planning and Consolidation and SAP S/4HANA. From there, how SAP BusinessObjects Planning and Consolidation is uniquely integrated into SAP S/4HANA is explained before sharing deployment options and return on investment considerations with case study examples.

Key Benefits

SAP BusinessObjects Planning and Consolidation (BPC) does what its name suggests: planning, budgeting, forecasting and simulation, as well as financial consolidation, in one common application. Traditionally, planning applications were separate from financial consolidation applications causing integration and reconciliation headaches. A distinct business trend towards financial consolidation of plan data along management structures for better enterprise visibility drove the justification for a unified system.

SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA goes a step further by implanting the application into an enterprise management system that handles (and scales) both transactions and analytics. SAP HANA is the enabling technology that makes such application coexistence and real-time integration possible. The resulting benefits are summarized into a dozen key points below:

- 1. Integrated planning across the enterprise in a shared transactional system
- 2. Unrestricted access to the most atomic level of transactional and plan detail
- 3. Single version of the truth for operations and finance
- 4. Reduction in batch jobs via real-time processing
- 5. Reduction in the data footprint by eliminating data redundancies
- 6. Accelerated system response times on real-time information
- 7. Robust calculations, allocations and simulations for quicker insights
- 8. More external data integration options with SAP internal data
- 9. Business function and predictive analysis libraries for more advanced modeling
- 10. Pre-delivered content and data mappings to reduce implementation times
- 11. Modern user experience and use of Microsoft Excel to facilitate adoption and productivity
- 12. Web-based data visualization and dashboarding options to speed up discovery

From a technology perspective, the benefits translate into cost avoidance savings in hardware, software and labor. From a business perspective, greater efficiency and effectiveness can be achieved. From an overall organizational perspective, business transformation becomes more attainable.

Introduction to SAP BusinessObjects Planning and Consolidation

The journey to SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA has been one of innovation yielding several product, implementation and deployment options along the way.

Marrying planning and consolidation into one simplified product with the ease-of-use and familiarity of Microsoft Excel created a high demand. With its popularity and market expansion came further investment and growth. A timeline of the lifecycle of products and versions is depicted below (Figure 1) showing the rate of evolution and transformation.



SAP Product Timeline

Figure 1 – Timeline history of SAP BusinessObjects Planning and Consolidation and SAP S/4HANA product versions

SAP BusinessObjects Planning and Consolidation affords different project options depending on the product and release being implemented. Understanding the history and lineage of the product facilitates understanding of which version to apply and the blueprint options available on the road to SAP S/4HANA.

On May 8, 2007, SAP announced it was acquiring OutlookSoft, which is Microsoft-based. Shortly thereafter, SAP rebranded the latest version of OutlookSoft (the product name was the same as the company name) to SAP BusinessObjects Planning and Consolidation, version 5.1.

The first release after the acquisition was 7.0, and the product remained on the Microsoft technical platform. SAP also "lifted and shifted" SAP BusinessObjects Planning and Consolidation onto the SAP application development platform named "SAP NetWeaver" creating an altogether new product. The 7.0 Microsoft version when into general availability in February of 2009, while the NetWeaver version became available in April of that same year. Consequently, SAP BusinessObjects Planning and Consolidation, version for the Microsoft platform and SAP BusinessObjects Planning and Consolidation, version for SAP NetWeaver became two separate code lines that carried forward into the next 7.5 release. The SAP NetWeaver version has tighter SAP data integration options in addition to the same infrastructure technology shared with other SAP applications. Otherwise, the two products were very similar with no notable distinctions in the BPC Add-in for the Microsoft Excel frontend.

A key focus of the next 10.0 release of SAP BusinessObjects Planning and Consolidation was harmonization with the rest of the SAP Enterprise Performance Management (EPM) portfolio. A new simplified Excel-based self-service tool, that worked across all relevant products in the SAP EPM suite, was introduced. The SAP EPM Add-in for Microsoft Office application became part of the 10.0 release among other improvements (such as better system performance) for both Microsoft and SAP NetWeaver versions. In addition, SAP offered SAP HANA, its new in-memory database, as a choice for SAP NetWeaver-based deployments. Later on, SAP HANA became more than a database option for the SAP NetWeaver version powering multi-dimensional querying, write-back, allocations and hierarchy disaggregation. SAP HANA started off as an in-memory database innovation from SAP.Now it has progressed into an application development platform in its own right as SAP NetWeaver code is pushed down into SAP HANA for performance optimization.

With the next 10.1 release, a new option known as "BPC Embedded" emerged for the SAP NetWeaver version. BPC Embedded leverages native planning capabilities within SAP Business Warehouse (SAP BW) named "Integrated Planning" (BW-IP) and SAP HANA-based functionality called the "Planning Applications Kit" (PAK). SAP BW was first introduced in 1997 as SAP's data warehouse that has grown significantly and matured since then. SAP BW also makes available advanced online analytical processing (OLAP) and many data integration options, much of it enhanced with SAP HANA capabilities.

The traditional SAP BusinessObjects Planning and Consolidation, version for SAP NetWeaver automatically creates and manages all of its underlying SAP BW data objects following a simple design that traces back to OutlookSoft. This option became known as "BPC Standard." In contrast, the BPC Embedded approach amalgamates SAP BusinessObjects Planning and Consolidation features with SAP BW functionality that has been optimized for SAP HANA.

This allows BPC Embedded implementers to leverage the full suite of SAP BW functionality and content for SAP HANA rather than rely on what BPC Standard exclusively controls in SAP BW. For instance, BPC Embedded offers "inverse formulas" for on-the-fly driver-based planning and break-back (e.g., volume times price equals sales calculations) at any level of a hierarchy (e.g., geography down to customer or product brand down to stock-keeping unit). Similarly, a library of planning functions are available, such as copy, delete, repost, revaluation and distribution by reference data. Finally, HANA Analysis Processes (HAP) and the PAK framework enable the incorporation of SAP HANA native features such as business functions (e.g., net present value or depreciation) and predictive analysis (e.g. k-means clustering or exponential smoothing) contained in its Application Function Library (AFL).

Lastly, SAP transactions loaded into SAP BW do not need to be reloaded as is the case for BPC Standard, because BPC Embedded works directly within SAP BW instead of on top of it.

On the other hand, BPC Embedded can leverage capabilities in BPC Standard not previously available in SAP BW, such as financial consolidation and "Business Rules" that perform currency translation and intercompany eliminations. Other borrowed features include "Business Process Flows" that work as guided procedures and "Work Status" for versioning and locking control.

BPC Standard is designed for maximum flexibility and simplicity while BPC Embedded is built for maximum integration into SAP BW. For example, the dimensionality and level of detail in BPC Standard is typically modeled judiciously and selectively to circumvent complication. In contrast, because BPC Embedded is natively integrated to the SAP data warehouse (BW), the level of granularity is unrestricted and can be modeled at the transactional level (e.g., document line items). Additionally, data federation and virtualization techniques are available via SAP BW and SAP HANA. Consequently, BPC Embedded doesn't have to be directly loaded with data, but instead, can query another external data set in real time.

Lastly, advanced online analytical processing (OLAP) tools, such as SAP BusinessObjects Analysis for Microsoft Office and SAP BusinessObjects Design Studio, can also be used with BPC Embedded for both planning and analysis within a spreadsheet and a dashboard, respectively. In fact, the whole SAP BusinessObjects portfolio of tools is available by way of SAP BW integration. Similar to OutlookSoft, Business Objects was acquired in 2007 (just after the OutlookSoft acquisition) opening up an array of integrated Business Intelligence (BI) alternatives to SAP customers that have evolved over time.

Typical use cases for BPC Standard (irrespective of Microsoft or SAP NetWeaver versions) are departmental applications, such as annual budgeting and periodic forecasting within a Financial Planning and Analysis (FP&A) group or financial consolidation within the corporate function. For instance, BPC Standard supports planning and consolidation autonomy in different regions or organizational groups across the globe whether at the corporate or subsidiary level.

While BPC Embedded covers the same functional scenarios, it has a strong use case for enterprise-wide deployments that reach deep into operations of other functions, such as sales, logistics and human BPC Embedded achieves integration resources. of planning, analysis and management across business units functions processes and like advanced and operations planning (S&OP) or even enterprise resource planning (ERP). sales

A strength of BPC Embedded is in the area of profitability analysis. Customer and product dimensionality can be handled by BPC Standard, but the data interrelationships with profit center are tricky to predefine upfront. Transactional information, like sales order details, are impractical to incorporate. To get to a sales order, BPC Standard allows drill-through to a web-based document listing, that, in turn, can drill through to a document display. But beyond having to leave Microsoft Excel and take an extra step to get to the document display, transactional details, such as sales order types (e.g., cash, promotion, rush, returns, third-party, inquiry, etc.) are lost from filtering and navigation. BPC Embedded is able to better support ad hoc "slicing-and-dicing" and pivoting of data across multi-dimensional hierarchies as well as drilling down to document numbers before drilling through to a document display.

With the introduction of SAP S/4HANA Finance, BPC Embedded was placed into SAP S/4HANA utilizing the entirety of BPC Embedded functionality on the entire SAP S/4HANA financial data set. As an added benefit, customizable content is pre-delivered with SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA as part of a pre-defined core solution that accesses transactional data in real time.

Introduction to SAP S/4HANA

SAP HANA can simultaneously handle the transactional and analytical load of SAP processes better than any other database on the market due to the assimilation of many technological innovations. In-memory technology, columnar storage, massive parallel processing, partitioning, compression algorithms and "insert-only" database operations all contribute to the radical reduction in read and write contention between OLAP and transactional processing (OLTP) applications, respectively.

As a result, not only has SAP BusinessObjects Planning and Consolidation been redesigned and rewritten for SAP HANA, but also the SAP Business Suite, most especially Enterprise Resource Planning (ERP) at its core. This new code line has been branded as SAP S/4HANA with cloud and on-premise versions.

The first version of SAP S/4HANA was focused on SAP Financials and was previously called SAP Simple Finance 1.0 due to the simplifying modifications made to the Financial (FI) and Controlling (CO) application modules. Data redundancies for reporting were eliminated due to the fact that SAP HANA can reconstruct totals and index tables as compatibility views in real time (directly accessing the transactions such as FI and CO documents and line items). FI and CO were also logically merged in SAP Simple Finance 1.0 and then later physically merged into the "Universal Journal" as part of the next SAP S/4HANA Finance, On-Premise Edition 1503. This melding of FI and CO at the most granular level creates a true "single-source-of-truth" eliminating the need for a lot of data management processes, resources and tools.

Then, with SAP S/4HANA, On-Premise Edition 1511, the simplifications went well beyond finance, covering many application areas and industries on an unprecedented scale.

At the time of this writing, SAP S/4HANA Finance, On-Premise Edition 1605 is the most current version. According to the SAP roadmap, the next version will be 1610 and is planned to incorporate real-time financial consolidation in order to expedite period-end closing of the financial books. Subject to change, the financial consolidation component within SAP S/4HANA will be a pre-packaged BPC Embedded environment and model built upon the Universal Journal with real-time access.

While the Universal Journal seems similar in nature to the traditional general ledger coding block concept (i.e., multi-dimensional fields in one place) there are significant differences that reshape how finance works. First, accounting document summarization from sales and logistics postings no longer occur. This means that the lowest level of sales and logistic invoices, as well as any associated order detail, can pass into the Universal Journal; the table records are as deep as they are wide. Finance does not have to hop across different transactions and systems using a trail of document number links or common filters, but rather have all the information they need in one place.

For long-time SAP users, this blurring of data between statutory and management accounting is new. When SAP introduced management accounting (CO) functionality to SAP ERP, it did so separately from its FI functionality. The delineation between FI and CO created processes to keep the application areas reconciled (some automated by SAP and some manual by the customer). The Universal Journal unifies key aspects of controlling with the general ledger, thereby reducing a lot of the reconciliation between the two within SAP S/4HANA.

In SAP S/4HANA, financial planning is primarily handled by SAP BPC optimized for SAP S/4HANA, particularly in the following areas:

- Cost Center Planning
- Profit and Loss Planning
- Internal Order Planning
- Market Segment Planning
- Project Planning
- Balance Sheet Planning
- Profit Center Planning
- Liquidity Planning
- Cost of Sales Planning
- Liquidity planning is a core part of the SAP Cash Management powered by SAP HANA product within SAP S/4HANA. Liquidity forecasting and management is integrated with other parts of the SAP Cash Management powered by the SAP HANA solution, such as cash operations and bank account management.

In many cases, old transaction codes (e.g., CO planning and liquidity planning) have been deleted or made obsolete by SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA.

SAP S/4HANA Migration Pathways

To get to SAP S/4HANA Finance, there are three migration options:

- 1. Brownfield conversion (available for SAP S/4HANA On-Premise only)
- 2. Greenfield new implementation (available for SAP S/4HANA On-Premise and Cloud)
- 3. Hybrid pathway (available for SAP S/4HANA On-Premise and Cloud)

If you do not plan on moving to the cloud, you should first look at the brownfield option because it migrates your existing investment as opposed to the greenfield option that discards it. The brownfield approach translates into less effort but runs the risk of automating obsolete processes or not addressing data quality issues. However, if the foundation of your ERP solution needs to be torn up, then starting with a blank slate makes more sense.

Any design decision in SAP S/4HANA can have a direct bearing on the SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA solution and, therefore, should not be handled in isolation. In addition, incorporating the application in the first phase of an SAP S/4HANA deployment has the following advantages:

- 1. For brownfield migrations that require the system to remain unchanged for a reconciliation period, SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA can be used as a visible and tangible tactic to bring immediate value to users and the business.
- 2. SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA creates instant transparency to data quality issues that prompts immediate improvement.

These points are particularly important when taking into account that an SAP S/4HANA brownfield migration is not a technical upgrade but an application conversion. More specifically, code gets deleted or modified, tables get dropped (or virtualized), and data get transferred and converted (e.g., the Universal Journal). Consequently, financial reconciliation before and after conversion is required. The risk to brownfield migration projects is not having enough to show immediately after the effort; SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA can resolve that as well as shape future S/4HANA improvements. Tangible advancements include better user experience, access to real-time data and removal of costly data load activities.

Of course, the same is not true of a greenfield migration in which the system can be completely redesigned with finance transformation in mind. However, it also requires more initial effort and necessitates a "big bang" cutover for the first phase. In order to achieve the best of both worlds, a hybrid option does exist that deserves study: implementing SAP S/4HANA Finance as a sidecar to your current systems via an SAP product called "Central Finance."

SAP Central Finance allows SAP and non-SAP systems to be integrated centrally into an SAP S/4HANA Finance system at the lowest transaction level in real time. The SLT replication server is used to listen to database change logs in order to forward information in real time to the Universal Journal.

Central Finance supports greenfield (i.e., new installation) and accelerated brownfield (i.e., take a copy and convert) scenarios without disturbing existing source systems. Cutover is facilitated with the possibility of a parallel go-live, as the constellation can remain in place after going productive.

Once data are successfully mapped to the Universal Journal in the Central Finance system, SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA can be used centrally against the replicated data from various systems without disturbing them.

Standalone Migration Options

As SAP S/4HANA comes with SAP BusinessObjects Planning and Consolidation already installed on it, both BPC Standard and BPC Embedded can be migrated to SAP S/4HANA, but you lose real-time integration. Alternatively, tighter integration can be achieved by loading from a real-time, virtual structure, known as a "VirtualProvider," that accesses the Universal Journal (the same one directly being used by SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA).

BPC Standard (version for SAP NetWeaver) generates its own unique and self-contained metadata that silo the environment from the rest. This design technique enables the solution to be easily ported into any SAP system at the right software level (including SAP S/4HANA) via file-based download and upload. A migration, in this case, would be a simple backup and restore (and a migration conversion if the source system is an earlier version). Of course, the drawback with BPC Standard is that it cannot be made real time but, rather, must be loaded from a real-time VirtualProvider.

In contrast, BPC Embedded typically leverages pre-delivered SAP BW metadata (termed "BI Content"). While transportable for migration to an SAP S/4HANA system, it is not recommended for a number of reasons:

- 1. SAP S/4HANA introduces its own content that is divorced from BI content with its own naming convention and is technically different (namely, designed for real time).
- 2. BI Content is designed for extract, transform and load (ETL) batch job processing (not real time).
- 3. BI content has a lot of intricate dependencies due to the maturity and growth of the solution over the last two decades. Depending upon the objects being used, it may be impractical to transport to SAP S/4HANA nor is there the benefit of achieving real time access.

As a result, new BPC Embedded projects (whether it is planning, consolidation or both) should use the SAP S/4HANA building blocks (referred to as "InfoObjects") to facilitate future migration. Even if a customer is not ready for SAP S/4HANA currently, any new implementation can be future-proofed. SAP Note 2243472 explains the methodology in detail and has been independently validated by TruQua and one of its customers (see case study below). The transport files containing the S/4HANA InfoObjects are also supplied via an SAP Note (accessed via the SAP Support Portal at support.sap.com).

Note that the InfoObjects in the SAP note download file have the exact same technical names as the InfoObjects in an SAP S/4HANA system but are not real time. Real time master data and transaction data are achieved once BPC Embedded is migrated from a standalone system to an SAP S/4HANA system. Figure 2 demonstrates how the migration methodology works. The only objects that need to be transported to an SAP S/4HANA system are the ones built on top of the SAP S/4HANA InfoObjects, such as the planning cube, queries and workbooks. The SAP S/4HANA InfoObjects in the standalone system can be left behind as they already exist in the SAP S/4HANA system. The actual data cube can also be left behind as it is replaced with an SAP S/4HANA VirtualProvider that accesses the Universal Journal in real time. Another virtual cube (either a "MultiProvider" or a "CompositeProvider") that unions plan and actual data simply needs to be repointed to the SAP S/4HANA VirtualProvider replacing the actual data cube.



Figure 2 – Architectural diagram of migrating custom BPC Embedded development to an SAP S/4HANA system

Case Study Example

Recently, a Fortune 500 chemical company made the decision to migrate from the 7.5 Microsoft version to BPC Embedded 10.1. While moving to SAP S/4HANA was on the near-term roadmap, the company had to migrate sooner because the 7.5 Microsoft version was going out of maintenance and was straining under the weight of data volumes needed for detailed profitability and product cost analysis. The company also wanted to better align corporate S&OP and financial planning by achieving deeper data integration with:

- Supply chain forecasting in SAP Advanced Planning and Optimization
- Overhead management in the Cost Center Accounting module within SAP ERP
- Actual costing and transfer pricing in the Material Ledger module within SAP ERP
- Pricing from the Sales and Distribution module within SAP ERP
- Organizational changes maintained in a custom tool

The company also wanted driver-based planning in order to simulate changes in volume, price and cost and its impact on profitability at various levels of customer and product hierarchies. More sophisticated analysis of product cost was desired, including:

- Visibility to original manufactured cost at the source plant (eliminating the effects of transfer pricing, as well as freight and duties to cost of goods sold).
- Forecasting the impact of commodity price and exchange rate fluctuations on product cost.

BPC Embedded was picked as the right option for meeting the enterprise-wide requirements because it had deeper integration options and supported more granularity. As they had outgrown their 7.5 Microsoft version investment, the company chose to re-implement. However, the key concern was not to have to re-implement a second time when migrating to SAP S/4HANA. SAP Note 2243472, and the methodology described therein, became the solution and was successfully applied and realized.

Return On Investment

Return on investment (ROI) calculations and business case justifications will be specific to each organization as the process is as circumstantial and political as it is mathematical. As SAP S/4HANA is still relatively new, SAP BusinessObjects Planning and Consolidation, optimized for SAP S/4HANA and SAP S/4HANA, are likely to be part of the same business case, and, in fact, the former is likely to help build the case for the latter.

While, arguably, most decisions rely on instinct, most business cases demand quantitative analysis. While measuring the value of SAP S/4HANA is an imprecise science, financial calculations help spur dialogue, build understanding around assumptions and socialize projections. Typical investment analysis not only includes ROI but is also comprised of other interrelated metrics, such as Net Cash Flow, Payback Period, Discounted Cash Flow (DCF), Net Present Value (NPV) and Internal Rate of Return (IRR). These metrics all represent different means to evaluate benefits versus costs.

While measuring the net gains on financial planning and consolidation is doable, it may not be meaningful. The difficulty is that most organizations base their business case on doing more "A" in "FP&A" (i.e., "Analysis" in "Financial Planning and Analysis"). While efficiencies are gained in reducing the amount of manual effort spent on managing spreadsheets, labor savings are typically slim. In reality, head count is typically not eliminated but rather redeployed into analyst roles or replaced with new talent. Complicating matters, FP&A efficiencies converted into effectiveness gains are hard to measure.

Real-time financial consolidation, when available, will facilitate the business case for a faster financial close and the benefits that go along with that. But the aforementioned trend towards financial consolidation of plan data and along management structures is also about achieving better analysis.

ROI-related metrics can be derived and usefully applied to business cases (even if they are indirect). Take, for example, the public SAP S/4HANA case study at MEMEBOX Inc., a beauty product retailer with about \$40 million (U.S.) in revenue at the corporate holding level. Since implementing SAP S/4HANA Finance, the company reported:

- An increase in revenue by 100%
- 30% shorter delivery lead time to customers
- 50% increase in sales productivity with on-the-go access to data
- 100% improvement in inventory accuracy
- 50% reduction in their closing period

For larger SAP companies, the ROI impact can be much higher; a fractional percentage shift in revenue, or even expense, for a Fortune 500 company can justify the cost of the implementation even if the investment horizon is five years or less.

Conclusion

SAP has a unique offering on the market with the breadth, depth, performance and real-time access that SAP BusinessObjects Planning and Consolidation optimized for SAP S/4HANA can provide. No other product on the market today has the unrestricted real-time access to a single-source-of-truth transaction record (that is at the lowest common denominator of sales, logistics and finance) for both planning and consolidation in a unified system.

With the acquisition of OutlookSoft, SAP bought the innovation of simplification in design, unification of planning and consolidation and usage of Microsoft Excel for modeling and reporting. SAP then integrated the solution, first into the SAP NetWeaver application platform, then into SAP BW and SAP HANA and finally into SAP S/4HANA. Leveraging a mature OLAP engine (i.e., SAP BW) built over the last two decades and fusing it with SAP HANA and an abundance of BI options (i.e., SAP BusinessObjects) makes SAP BusinessObjects Planning and Consolidation a best-in-class analytic application, even without SAP S/4HANA.

Charting the journey to SAP S/4HANA has a number of routes to choose from, whether greenfield, brownfield or Central Finance. One direction includes not implementing SAP S/4HANA until later but future proofing the SAP BusinessObjects Planning and Consolidation by using SAP-provisioned SAP S/4HANA building blocks.

SAP makes adoption easier by delivering out-of-the-box content and functionality to accelerate implementations and achieve faster ROI. By joining together SAP BusinessObjects Planning and Consolidation and SAP S/4HANA, IT can exploit ways of averting hardware, software and labor costs associated with redundancies in data, tools, processes and resources. In turn, finance will be able to achieve ROI by capitalizing on efficiencies gained from a real-time system and applying the extra time to focus on more detailed and accurate analysis for greater effectiveness.

About the Authors

David Dixon and Scott Cairncross are both recognized speakers at SAPinsider and SAPPHIRENOW + ASUG conferences, as well as SAP- and ASUG-sponsored webinars. Both have been featured at the SAPinsider seminar series for "BPC Bootcamp" and "SAP S/4HANA Finance Bootcamp" around the globe. Both have extensive project experience in implementing large-scale enterprise solutions for Fortune 100 companies. They are also the co-founders of TruQua.



David co-authored the book, "Mastering the SAP Business Information Warehouse" written with Bill Inmon, the "father of data warehousing," as well as past white papers sponsored by Business Objects and SAP on Business Intelligence (BI) and Enterprise Performance Management (EPM). David started his career in 1995 as a Financials and Controlling (FI/CO) consultant with SAP, specializing in financial consolidations, product costing and profitability analysis with particular expertise in the ERP information systems and tools. David was a Platinum Consultant before he left SAP in 1999. David is a proud husband and the father of a boy.



Scott was formerly a Senior Director of the SAP BusinessObjects Enterprise Performance Management (EPM) Regional Implementation Group (RIG) in the Americas. Scott worked with most early SAP EPM customers in order to assist them with their solution strategies and implementations. As a part of his management role, Scott led various ramp ups, as well as other strategic initiatives. He is currently an ASUG Chair for the Development Technologies Special Interest Group (SIG). Scott also co-authored the book, "SAP Enterprise Performance Management (EPM) Add-In" as well as articles published in SAP Professional Journal and SAP Insider. Scott is also a proud husband and the father of two boys.

About TruQua

TruQua is an official SAP services and licensed development partner specializing in software solutions, project implementations and deployment strategies for the integration of SAP S/4HANA, HANA Cloud Platform, SAP BusinessObjects, SAP HANA and SAP NetWeaver. TruQua also pre-packages its proprietary solutions and know-how into cloud-based service offerings for new product evaluations, project acceleration, migration support and performance benchmarking known as TruQloud.

35 East Wacker, Suite 3000 Chicago, Illinois 60601 312–525–8787

info@TruQua. com

