

WHAT MAKES ACTIVITY ANALYSIS DIFFERENT?

Web-Based ABC from Business Objects

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EXECUTIVE SUMMARY

As a next-generation, web-based activity-based costing (ABC) application, BusinessObjects™ Activity Analysis is an advanced cost and profitability analytics application that addresses the traditional barriers to implementing ABC. Activity Analysis offers significantly enhanced functionality with a host of prebuilt integrated features, developed with the benefit of a deep understanding of what drives costs in an organization.

The key features that distinguish Activity Analysis from the range of ABC software applications available today are identified under the following headings:

- Multidimensional
- Modeling
- Scalability
- Deployment
- Ease-of-use

This paper discusses these features in detail and explains how they differentiate Activity Analysis from other software offerings.

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Audience: This paper is intended for CFOs, financial controllers, financial managers, and cost accountants.

MULTIDIMENSIONALITY

MULTIDIMENSIONAL ALLOCATIONS

Activity Analysis is truly multidimensional in that an activity cost can be allocated to the exact and appropriate combination of multiple dimensions (such as product, customer, and channel). Only by multidimensional assignment of activity costs to cost objects can the user pinpoint the true cost of selling a given product to a particular customer through a particular channel.

While suppliers of other software tools maintain they can support multiple dimensions, this is not the same as being truly "multidimensional."

The distinction between "multiple dimensions" and "multidimensionality" is extremely important, and the project leader should check that the potential vendor understands the distinction. All ABC tools handle multiple dimensions in that they support the activity, cost object, and resource dimensions, among others. The difference with Activity Analysis is it can drive costs across multiple dimensions without awkward workarounds.

Achieving the same results in applications that aren't truly multidimensional, if at all possible, requires assistance from a very experienced developer. Usually the workaround is to combine cost objects from multiple dimensions into a single cost object. In this scenario, "ProductA" and "CustomerB" would be combined to create a single cost object called (for instance) "ProductA/CustomerB." However, it's more difficult to build the model, because each combination of product and customer must be created and driver data must be preprocessed to conform to the cost object structure.

Maintenance also becomes very awkward. If the organization gets a new customer, for instance, then it's not just a matter of adding one customer to the model—all appropriate cost object combinations must also be generated. This results in a model that is less efficient because every potential combination must be created, even though not every combination will receive cost assignment during every period.

Activity Analysis also handles more complex allocations, where an activity's cost is driven first to one dimension (e.g., products) based on a primary driver, and then allocated to a second dimension (e.g., customers), based on a secondary driver. This approach is useful with activities whose driver volumes are not collected in true multiple dimensions.

Without true multidimensionality, this is hugely complicated and requires the creation of not only composite cost objects to mimic the combinations of cost objects, but also for the calculation of dummy driver volumes. Collection of data and subsequent maintenance of the model is often prohibitively difficult.



MULTIDIMENSIONAL REPORTING AND ANALYSIS

Unlike relational database applications, including BusinessObjects Metify ABM, Activity Analysis has fully integrated online analytical processing (OLAP) multi-dimensionality–business intelligence (BI) cubes of data—so the web books used for data collection, analysis, and reporting are automatically repopulated when the model is refreshed. In addition, users can analyze data in multiple dimensions with the facility to report only at the high-level activities and then drill down to show all the details.

MODELING

Using Activity Analysis, ABC models are easily built and maintained and have extremely flexible modeling capabilities.

TRACEABILITY

Activity Analysis offers user-defined traceability of costs back through even the most complex reallocations. Whatever costs have been assigned during the model calculation, the user has the ability to drill through the results and see exactly how the costs have been assigned and where they originated. Other solutions don't offer this level of transparency and accountability, while some have no traceback functionality at all.

ALLOCATIONS AND REASSIGNMENTS

Cost Allocations

Unlike some other applications, Activity Analysis modelers don't have to follow any predefined general ledger structure. The application is flexible enough to allow them to restate the general ledger before allocating costs to activities, with users able to allocate selected account/department costs internally within the same department or to other departments before assigning the account/department costs to the activities.

Activity Cost Reallocations

Activity Analysis also supports the reallocation of activity cost data internally within the same department or to other departments. Extremely flexible allocation paths allow modelers to drive costs across models in new ways and default assignments makes modeling quick and easy. Powerful override features allow different paths to be defined in different responsibility centers, versions, and periods.

Reiterative (Simultaneous) Allocations

Activity Analysis allows unlimited, even reiterative, reallocations within the same, and/or to other departments. The reiterative allocations are handled automatically, continuing to iterate until all costs have been reallocated. There is no limitation on the number of departments involved in this process. Other software does not allow this at all, while some applications have very limited reallocations and some do not permit true recursive reallocations.

Building Reallocation Paths

Activity Analysis allows assignment paths to be specified en masse by assigning attributes to groups of target objects. In addition, Activity Analysis uses hierarchies for definition of assignment paths. This means if a new cost object is introduced,

all that is required is it be added to the group and be taken into account by all the existing activities. Other software requires the allocation paths be maintained manually, meaning every destination object has to be individually clicked on. For models of any size, this makes model building tedious and prone to error.

Activity-to-Activity Reassignments

Model builders may wish to transfer the costs of an activity to other activities performed in their organization by other responsibility centers. An activity can be reallocated across all responsibility centers, including the originating responsibility center. Activity Analysis automatically handles the reiteration process.

DIMENSIONS

Number of Cost Object Dimensions

As with Metify ABM, Activity Analysis has three standard cost object dimensions—typically, product, customer, and channel. With Activity Analysis, however, additional cost object dimensions are available for organizations that want additional cost objects. Other software packages available do not offer as many dimensions in conjunction with multidimensional assignments.

Revenue Handling

Activity Analysis has a dedicated revenue dimension, so revenue can be modeled across multiple dimensions in the model—meaning profitability or cost recovery analysis is completely integrated. This allows managers to analyze and report on the profitability of any combination of product, customer, or channel. In other applications, ABC data is exported and revenue analyzed offline.

Spread Dimension

Activity Analysis has a spread dimension that allows users to spread summary level data across periods, versions, or line items using model rules.

Services Dimension

Accurate services costing cannot be achieved in some ABC applications because it requires a process of balancing—the iterative process of cost reallocation based on matching the supply and demand for shared services to achieve a unit price that will recover cost to the supplying department. A distributed system can't be expected to deal with this due to the reflexive nature of the costs and continually changing demands—likewise, for nondistributed systems that require the shared-service relationships to be hard-coded into the model.

Activity Analysis allows users to quickly model shared service use, allowing cost-center managers to understand how they generate demand for central services, and what impact their own actions have on the level of these costs. The optional services dimension in Activity Analysis provides additional functionality specific to the costing and cross charging of shared services, with additional rules-based allocations and flexible options for cross-charging and cost recovery.

Version and Period Dimensions

The version dimension allows a model to contain several different versions of a model, each with its own dataset. For example, the model builder may wish to compare a budget version with an actual version. He or she could do this variance analysis in a third version called variance.

Activity Analysis also accommodates multiple time periods within a single model, with the period dimension representing a subdivision of a model across time. The dimension enables the model builder to view data by user-defined periods, such as weekly, monthly, quarterly, bi-annually, or annually, and may be calculated automatically through the consolidation features and built-in functions. The period dimension can also be used to store historical data for comparison against the current period.

RULES IN ACTIVITY ANALYSIS

Powerful Rules Editor

Activity Analysis uses a set of user-defined rules to provide greater flexibility. Driver rules allow the user to create new drivers from any other data values held in the enterprise performance optimization (EPO) database—including resource costs, driver values, revenues, and so on. Line-item rules allow the user to create line-item values. For example, salaries can consist of a base rate plus a percentage commission.

Among other things, this allows you to calculate composite drivers from base data and build cause-and-effect into the model—for example, the relationship between activity levels and the number of resources required to carry out that activity. Rules also allow the user to select which version or period to work with and to apply weightings to the resource drivers. No other ABC software application allows this level of flexibility.

HYBRID ABC METHODOLOGIES

One application of the Activity Analysis model rules is the derivation of drivers based on unit times and transaction volumes—i.e., time-based costing, which may be appropriate when a department's activities are highly repetitive. Activity Analysis is flexible enough to provide a solution that incorporates both time-based costing

and driver-based cost allocations, giving model builders a choice of methodologies. Other software applications are generally unable to allow more than a single methodology. Those applications that support time-based costing do not also offer the same level of flexibility that Activity Analysis does.

REALISTIC WHAT-IF ANALYSIS

Driver analysis functionality allows a user to experiment with activity driver volumes and see what effect the changes have on resources and resource drivers. The relationships between these various quantities are defined in the model's rules and assignments.

Commonly known as activity-based budgeting (ABB), what-if analysis, or back calculation, driver analysis allows the model builder to create scenarios in Activity Analysis to predict new levels of activities, resources, costs, and profitability for any level of output. This activity-based budgeting approach allows users to forecast the impact on resources and costs simply by changing the volumes of product sales, customers, and channels. While this functionality is standard in Activity Analysis, some software vendors don't support the iterative processes required to evaluate multiple scenarios and have no facility for ad hoc analysis other than an export to third-party tools.

The ability to add "back rules" that allow users to specify exactly how new levels of activities will be resourced adds considerably to the realism of "back calculation" and is an important requirement when a model is used for detailed operational planning. This integrated resource planning functionality differs from other solutions including Metify ABM. While other ABC applications may have a back calculation facility, sometimes this is just a capacity constraint flagging exercise using account pools. The software cannot always go back to base-level accounts.

SCALABILITY

ENTERPRISE SCALABILITY

Using a standard three-tier architecture, Activity Analysis can be scaled from a handful of users to literally thousands across an organization, and can be deployed rapidly and cost effectively to contributors throughout an enterprise. Web deployment gives a broader range of employees access to important ABC data, as well as providing easy access for remote contributors.

LINKING MODELS

Different Activity Analysis models can be linked using cross-model rules, allowing results in one model to be calculated from the numbers in another model. This allows a collection of models, either hierarchical or peer-to-peer, to be built that work together dynamically. Complex allocations can be built and maintained more easily by splitting different modeling tasks out into separate models. Again, no other ABC software application offers this flexibility without outside routines to support it.

MODEL SIZE

With other ABC software, there can be a restriction as to the number of items (accounts, activities, cost objects, etc.) allowed in a model. These restrictions mean an organization wishing to build an ABC model of any real size may require multiple models. Some users try to get around this issue by building one process per model, or by modeling at a higher level of detail than they would wish.

The Activity Analysis data management functions have been developed specifically for ABC models and as a result, they are very efficient for both storage and calculation. Consequently, it has a very high capacity and very fast calculation engine compared to ABC software that depends on the reengineering of other generic applications.

Some other solutions use cost pools, which allow the user to collect costs together and then define assignment paths for the group. This is often a workaround that compensates for a slow calculation engine. The disadvantage of this approach is that the detail is lost and subsequently the user can't follow the allocation of costs. Activity Analysis is efficient in that it can calculate at the finest level of detail.

PARTITIONING

The Activity Analysis model partitioning functionality allows a model to be transparently hosted across several processes or separate computers/servers. This means a model can be scaled effectively by simply adding more servers. This partitioning capability is totally unique—no other ABC vendor has anything like it.



MULTI-USER AND USER POPULATIONS

While other ABC software applications claim to be multi-user, this is often done by allowing multiple users to access a model simultaneously, while only one user can update the model at any given time. Activity Analysis supports multiple users simultaneously updating not only the same model, but even the same table. This is true multi-user capability, and is necessary for real-world collaboration between team members.

DEPLOYMENT

MODEL MAINTENANCE

Activity Analysis has the flexibility to absorb changes quickly and easily, not just in the data but also in the organizational structure and resource hierarchies.

Structure

The built-in data logic in Activity Analysis means changes in the structure of the model precludes the need for the wholesale redevelopment of the books. Similarly, when importing data from other sources (for example, the general ledger), Activity Analysis recognizes and automatically updates its model with new line items and dimensions.

Add a new product manually or electronically, and it automatically inherits the activity assignments and cost drivers defined for its group

Change a department's name in one place and all other references to that department are automatically made throughout the model.

With Activity Analysis, it's that easy. These structural maintenance features don't exist in other software applications, resulting in time-intensive model maintenance. Minimizing the effort required for deployment is especially important for enterprise-wide applications, where the user base may be large and widely spread.

Work Manager

The integrated Work Manager tool in Activity Analysis enables routine procedures such as data collection to be prescheduled. The system automatically monitors progress against user-defined schedules to ensure data is entered, validated, and authorized on time. Work Manager can even be configured to issue automatic alerts to users and their managers when deadlines are missed. This expedites the data collection routines so models can be refreshed more frequently. This way, cost and profitability analytics becomes part of monthly reporting with little effort. While some ABC software applications from the large ERP vendors have links to separate workflow tools, no other application has an integrated tool that allows managers to control processes with the minimum of effort.

SOFTWARE MAINTENANCE

There's no need to manually load software on contributors' computers—users just connect to Activity Analysis using their standard web browser, greatly reducing IT overhead.

The implementation isn't limited to shipping data back and forth, but actually allows teams to run the client application in a browser, interacting with the server component over the internet or corporate intranets. Any data updates are immediately available to all other users, both conventional and web-based.

INTERNATIONAL SUPPORT

The system has multilanguage and multicurrency support, allowing users across the world to interact with one global model by presenting data in the local currency and language. At a group level, data can be automatically converted and consolidated into the home currency. Most other ABC applications don't offer local language support.

REAL-TIME CALCULATION

One of the main issues with ABC is the sheer time it takes an organization to refresh and recalculate a model. In particular, distributed systems suffer from this problem, as data has to be sent out to each user individually so they can make their contribution before resubmitting for consolidation. Activity Analysis sidesteps this entire problem by using a single centralized database coupled to a very powerful and efficient calculation engine, opened to a community of web-based contributors. The result is a system that enables real-time data collection and real-time consolidation. Other applications require data manipulation and multiple steps to generate the same functionality.

SHARED WEB BOOKS

The same report and data collection templates can be deployed to a large community of contributors, with the same template behaving differently for different users according to their roles in the organization, their rights to access particular pieces of information, or the line items they use. This avoids the requirement of many other applications to build views onto the database for each different access level, which involves much repetitive work and time-consuming maintenance.

EASE-OF-USE

WEB BOOKS

In some ABC applications, data entry screens and reports are preformatted. In Activity Analysis, book designers create templates for data entry and reporting quickly and easily. Using drag-and-drop functionality, users define workbooks and data entry screens that the system personalizes according to the responsibilities and requirements of the individual user. Users access these tailored web books and reports through a standard web browser to input cost data and view the results in dynamic charts and reports. This provides easy access for remote contributors and users, reducing the time and intervention typically involved in collecting non-system driver data. Models can be replenished more frequently, giving more timely results than ever before.

FORMULA EDITOR

The Formula Editor allows users to perform essential arithmetic analysis on results, calculating measures such as unit rates for activities and cost objects. Once defined, they can be added to reports, automating analysis for all time. This precludes the need to export the data to an external tool for manipulation and analysis compared to other software applications.

CONCLUSION

Activity Analysis represents a new level of activity-based costing solutions, delivering all of the cost-efficiency improvements of web-based technology—but in real time, with a greater degree of reliability, accuracy, and flexibility, and with a lower cost of ownership. The depth and breadth of functionality in the Business Objects next-generation ABC solution simply is not available in competing applications. In this respect, Activity Analysis is the next evolution of ABC software.

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