



InComparison

InComparison Paper by Bloor

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Financial Intelligence and Business Reporting in JD Edwards EnterpriseOne and World Environments



It will make much more sense to consider a single purpose-built solution as a possible alternative to the Oracle stack.



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Introduction

This paper compares different approaches to reporting against the JD Edwards (Oracle) EnterpriseOne and World ERP application suites. It was originally published in 2013 and this version is a revision reflecting significant changes that have taken place since the first edition. In particular, one of the vendors has re-branded its products and this revision reflects that fact. However, this version does not represent a full update to the original paper.

It should be noted that the general comments made here are applicable to any ERP environment whether provided by Oracle, SAP or anyone else, but the remarks with respect to particular products may be specific to the JD Edwards environment. However, before we discuss any products let us first turn our attention to today's business and financial reporting imperatives.

Businesses have been able to produce reports for years. But recently there has been a new need emerging in the market. Users are requesting the ability to get answers to business issues quickly, and this does not mean wading through reports, but rather serving up information that makes sense to the end user. This usually means using the sort of facilities that have 'traditionally' been associated with business intelligence. That said, 'traditionally', business intelligence tools have been limited by the extent to which you knew in advance which questions to ask and that, if you did not, you could afford to wait for the weeks or months that it might take the IT department to rebuild the relevant models. This is not good enough today: the business wants answers now and it wants them in a self-service manner which means that the business user can ask the questions he wants to, from his own desktop and without any reliance on IT. In other words, reporting/query tools today need to be flexible and easy enough to use, and fast enough (preferably in real-time) to support business users in answering the questions that they need answered, when they need the answer. In short, business users want answers, not more report building.

Financial reporting is rather different from other forms of reporting. This is because it is essentially formulaic. That is to say, every company in each jurisdiction

has to prepare the same set of company accounts. This is not true of other areas within ERP systems such as inventory management or human resources, where there may be significant differences between different organisations. The implication of this is that it is reasonable and sensible to take a packaged approach to financial reporting and budgeting. However, while this may be intelligent, far too many companies have piecemeal solutions based on a combination of ERP software, some reporting and all too much reliance on spreadsheet software such as Microsoft Excel. This makes the production of financial reports clumsy, difficult to manage, prone to error, in danger of being non-compliant and, in particular, slow. An additional consideration is the increasing number of companies desiring self-service delivery of key financial information to business stakeholders – ideally with live data and ability to drill to supporting details. Such an approach can be key to increased corporate agility. Finally, leading companies want finance groups to be focused on strategic analysis more than counting beans and closing the month-end. Therefore, an optimal enterprise financial "reporting" solution would indeed enable meaningful financial reporting. But possibly more importantly it would deliver a solution which: 1) enables accounting groups to more quickly to close the month-end, allowing more time for analysis; 2) simplifies and improves budgeting/forecasting processes and visibility; and 3) offers non-finance users access to relevant financial information from a simple self-service, real-time interface.

Going on from this, if it makes sense to have a single packaged approach to financial reporting, doesn't it also make sense to use the same software to answer financial business questions as discussed above? And, further, to extend this to cover other areas within the ERP environment? We believe that taking this sort of approach has the added value of requiring fewer IT resources (only a single implementation is required) and will typically mean a faster return on your investment. It is from this perspective that we approach this review.



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Products

With respect to the reporting requirements under discussion we have made the assumption that this includes traditional financial reporting (consolidation, forecasting and budgeting, and so forth) as well as supply chain, human capital management, and other forms of reporting across the enterprise. This also includes the sort of slice and dice, aggregations and drill-down to transactional level that might more normally be associated with what are traditionally known as business intelligence tools.

regardless of its development background. Nevertheless, if you are a JD Edwards user and, especially, a user that is looking for a financial solution as much as a general reporting one, then a purpose-built solution is perhaps more likely to be the most suitable product if for no other reason than the fact that there is no other extraneous functionality within the product that you don't need. Be that as it may, in this paper we will discuss the various solutions that are available and consider their relevant advantages and disadvantages. Initially, we will simply discuss each approach in general terms, from which we will pick leading solutions that we will then compare in more detail.

As the incumbent provider we will start with Oracle's offerings.

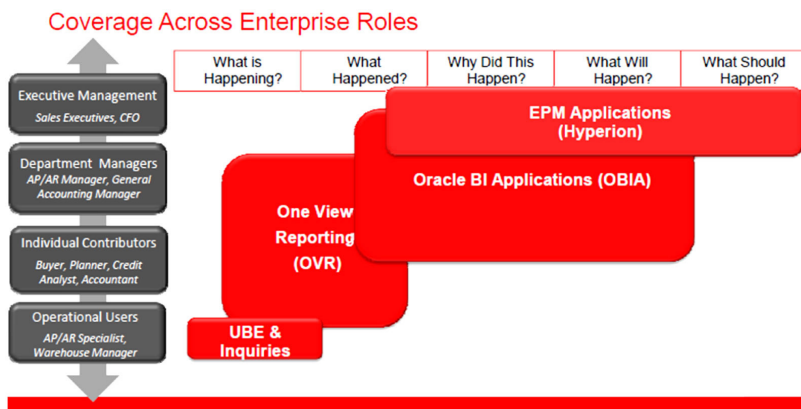
Oracle

Figure 1 is an Oracle produced slide illustrating its approach to financial intelligence and business reporting within JD Edwards EnterpriseOne environments. For those not familiar with the relevant acronyms, "UBE" stands for universal batch engine, which is a built-in function within EnterpriseOne deployments. UBE is the engine supporting custom report development by traditional programmers and is discussed in the section called 'Embedded report writers'.

Leaving aside UBE then, there are three Oracle products that you will need to use within the environment under discussion. Briefly:

- OBIA is a general-purpose business intelligence environment that provides aggregations, slice and dice and so forth;
- Hyperion provides specialised financial reporting capabilities such as consolidations, forecasting, budgeting and so forth, as well as balanced scorecards and metrics to support performance management;
- OVR is an operational reporting environment (that is, it runs at transactional level) that runs across the EnterpriseOne environment. Note that there is no aggregation capability in OVR so OBIA, at least, will be required.

Figure 1:



Because of the difference between financial reporting (suited to a packaged approach) and other forms of reporting such as inventory, supplier, sales or personnel reporting, as discussed above, vendors in this market have adopted one or other of two rather different strategies. In the first case, some suppliers have started with a specialisation in financial reporting and then broadened their approach to the more general case, while others have taken the opposite stance of starting with (and, in some cases, continuing with) a more general-purpose product. Similarly, there are vendors that have begun by specifically developing a product tailored for a JD Edwards environment while there are others that have started with a generic product and then retrofitted required specificity.

A priori there is no reason to prefer one of these approaches over another. The proof of this particular pudding is in how well the product performs the desired task,

One's immediate reaction to this, regardless of the merits of the individual products, is that it seems like overkill: wouldn't you prefer to have one product, or even two if one accepts that performance management might be a separate function, that not all companies require, rather than three? Nevertheless, as the provider of EnterpriseOne in the first place, Oracle is clearly in the box seat when it comes to providing reporting solutions for that environment.

(Other) BI tools

You could choose to use a business intelligence tool from a vendor other than Oracle. These effectively fall into two categories: those that are simply about slice and dice, OLAP (online analytic processing) and analytics (from vendors such as QlikTech, Tableau and so forth) or those that are from companies that also offer, as separate products, what are known as either corporate or enterprise performance management solutions. Vendors in this category would include suppliers such as Business Objects (SAP), Cognos (IBM) and SAS.

The main downside of taking this approach is that none of these products will have the detailed knowledge of, and integration with, the EnterpriseOne or World environments that Oracle can provide. This would be different in the case of SAP if we were talking about its own ERP systems but we are not. In particular, ERP implementations are notorious for their customisations and suppliers with products that have not been specifically tailored for the JD Edwards environment will not be able to take advantage of these customisations, nor address ERP specific usability challenges without significant effort in terms of both time and expense. Note that this also applies to some of the other types of solution described below.

A secondary consideration is that BI tools do not generally have financial reporting capabilities so you will be forced to have two products: one for business intelligence and one for financial functions. Whichever supplier one might choose and one will still not have the functionality that Oracle can provide with OVR. All in all, we cannot see any good reason why one might prefer a third party BI-based solution compared to sourcing such software from Oracle.

Embedded report writers

A third option is to follow the route of a traditional report-writing tool. The advantage of such an approach is that they are really inexpensive to license, or even included in the ERP license. However, what it means is that you will need software developers to create all of your reports for you and the costs of such developers are likely to outweigh the license advantages of using a report writer. Further, such environments are not 'agile': you will typically wait for days or weeks, if not months, for new reports to be made available and even then there is every possibility that the report will not match the user's requirements as the business can have no involvement in the development process. Finally, the other downside of this approach is that the result is static reports that are delivered in PDF format and which are not easily amenable to change and do not support drill-down to appropriate levels of transactional detail.

Of course, in any solution of the type under discussion there will be a strong emphasis on report building and the breadth of the features required to support the report building process. That is essential, but should not be the only criteria. It's important to remember that companies build reports because it is often the only way their users can gain access to the information they need. When companies enable business users to answer their own questions, the burden of report building can be drastically reduced. This occurs when you can put highly summarised information in the hands of the information consumer so they themselves can interact with the data and drill to transactional detail. This is where transaction-oriented reporting tools struggle.

Specialised products

There are solutions, such as Hubble (from insightsoftware.com) that are purpose-built tools designed to provide financial and non-financial enquiry, reporting and business intelligence capabilities specifically for JD Edwards' environments. The big advantage, as we see it, of such an approach is that you have a single product that encompasses all of the space provided for by OVR, OBIA and the financial reporting and budgeting aspects



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Hubble allows you to apply the ERP software's own security at report run-time without requiring an additional setup, which is precisely what you want for corporate compliance purposes.



of Hyperion. As noted previously, we think that this represents a significant benefit. Of course, the other major advantage of using this sort of product is that it knows about the underlying structures of EnterpriseOne and World and has facilities for taking into account the customisations we discussed previously. Further, because of its close integration with JD Edwards' environments Hubble allows you to apply the ERP software's own security at report run-time without requiring an additional setup, which is precisely what you want for corporate compliance purposes.

Spreadsheet plug-ins

The advantages of a spreadsheet plug-in is that Microsoft Excel is widely known and familiar, that it is easy to install and relatively inexpensive. However, there are serious compliance issues with respect to the use of spreadsheets, especially when it comes to financial data. The first is that the data can be changed! The second is that spreadsheets, at least without the added introduction of a spreadsheet governance solution, are very easily amenable to fraud. Thirdly, when using spreadsheets for financial reporting it is often the case that the eventual report is created, at least in part, by copying and pasting across spreadsheets. Again, unless you invest in additional third party software that can capture the processes involved and automate them, these are manual processes that are time consuming and prone to error.

Going a stage further we would argue that the use of spreadsheets to support ERP environments is counter-productive when compared to a solution that works from within the ERP environment. Specifically, using spreadsheets causes reduced productivity and impairs collaboration. In the Bloor Research "Spreadsheet Management" report we stated that, "users have a considerable management effort involved in managing their own spreadsheets: they may need to discover the location of relevant source data, they may need to extract information from previous versions of a spreadsheet and perform reconciliation procedures, they may need to distribute their spreadsheets to colleagues (which raises the possibility of errors in distribution lists), and they will (we hope) be taking back-ups on a

regular basis." Further, "spreadsheets are frequently used for collaborative purposes not merely in environments such as budgeting but also for decision making. In most organisations, when a spreadsheet needs to be distributed to various parties involved in any decision-making process, the relevant documents are distributed via email. This is inherently unsafe (and is therefore a security issue) but there is also no way in which collaborative working on the same spreadsheet is managed or controlled or, indeed, facilitated."

In general, spreadsheet plug-ins are most likely to be successful in the following scenarios: when user numbers and data volumes are low, when the requirement is narrow and less sophisticated, where compliance is not an issue and where there is no requirement to combine complex sets of data from customised or standard ERP tables with data from outside the ERP solution within a single view. Conversely, if any of these points are issues then another solution is likely to be preferred. This will also be true when performance is an issue, since other approaches will tend to perform better; and if you want a pre-built budgeting solution (say) rather than being happy to build one for yourself.

Interim conclusion

For small, simple implementations where compliance is not an issue and cost is, then a spreadsheet plug-in based solution would appear to be the most obvious answer to reporting from an EnterpriseOne environment. However, most companies, especially those concerned with financial reporting, will not be in such a position. It is worth exploring some features of the various solutions, the results of which are illustrated in **Table 1**.

If we bear in mind that the three columns to the left of this table represent

the totality of the offering from Oracle, and taking into account our previous comments about alternative business intelligence solutions, then it seems clear that the two main contenders for financial reporting and BI solutions within a JD Edwards environment are Oracle itself together with specialised products as exemplified here by Hubble. Given that Oracle is well known but insightsoftware.com is not, it will be worth discussing the latter company and its product, Hubble, in some depth.

	BI (like OBIA)	Perf Mgmt (like Hyperion)	OVR	Hubble	Report writers	S'sheet plug-ins
Use native JDE security	No	No	Yes	Yes	Yes	Some
Run against real-time ERP data	No	No	Yes	Yes	Yes	Yes
Able to be implemented and trialled prior to purchase	No	No	Poor	Yes	No	Some
Access tables outside JDE	Yes	Yes	No	Yes	No	Poor
HTML output	Some	Some	Yes	Yes	No	No
Supports all versions of JDE EnterpriseOne and World	Yes	Yes	No	Yes	Some	Some
Data visualisation	Excellent	Excellent	Excellent	Excellent	Bad	Fair
Pixel perfect report layout	Excellent	Excellent	Excellent	Excellent	Bad	Bad
Complex data mappings	Excellent	Excellent	Bad	Excellent	Bad	Poor
Complex calculations	Excellent	Excellent	Fair	Excellent	Poor	Fair
Join many tables in one report	Excellent	Fair	Poor	Excellent	Fair	Poor
Consolidate any data set	Poor	Poor	Bad	Excellent	Bad	Poor
Drill down, across, through	Varies from fair to bad	Poor	Fair	Excellent	Poor	Poor
Financial consolidations	Poor	Excellent	Bad	Excellent	Bad	Poor
Financial reports	Poor	Excellent	Poor	Excellent	Excellent	Fair
Drill balances to transactions	Bad	Poor	Fair	Excellent	Poor	Fair
Drill to any sub-ledger	Bad	Poor	Bad	Excellent	Poor	Poor
Real-time reconciliation	Bad	Bad	Bad	Excellent	Bad	Poor
Budgeting solution	Bad	Excellent	Bad	Excellent	Bad	Bad
User defined time series, aging	Fair	Excellent	Bad	Excellent	Bad	Poor

insightsoftware.com was founded in 2003 as The GL Company, an operating subsidiary of DecisionWorks. Since that time it has become independent and changed its name. However, as its original name suggests the company's original products were specifically designed for general ledger reporting and, what is more, its first suite of products were specifically designed for JD Edwards implementations, although it has since branched out with a real-time business performance management solution that offers reporting, planning and analytics capabilities for selected ERPs. Thus the "excellent" comments in **Table 1** about financial reporting should come as no surprise.

Apart from any technical details the main foci of Hubble are:

- To make implementation as simple and efficient as possible: the company normally expects to go live within two hours and certainly within a day. This is also important in that facilitates a proof-of-concept: allowing you to test the company's claims for capability and usability without have to make a major commitment in terms of time and money.
- To provide a high performance environment that allows slice and dice and pivoting across live ERP data. This should reduce the need for report building while enabling users to rapidly answer meaningful business questions.
- To provide an environment that is not reliant on IT staff. In practice, the company supports both power users, who are business users that can design relevant reports and live queries based on templates that are provided, and casual users who can use those reports and queries in a self-service manner.

In broad terms, and leaving this web enablement issue aside, if we compare Hubble with the three elements of Oracle's offering then:

- Hubble compares favourably with Hyperion for financial reporting. In particular, Hubble has functions that Hyperion does not offer, such as the ability to compare real-time actual amounts with budget entries throughout and after the budgeting/forecasting process. Also noteworthy is that Hubble supports in-process reconciliation over live data, which significantly reduces month-end overheads. Hyperion does not offer comparable capabilities. Finally, Hubble is much faster and easier to implement and use, and has a lower cost of ownership – this comment also applies to any comparison with OBIA.
- Hubble compares well against OBIA in terms of functionality. For example, it will run against real-time ERP data and is more flexible when it comes to drilling to data. On the other hand OBIA is a generic capability that can be used in environments that have nothing to do with JD Edwards.
- The big downside of OVR is that it only runs against the most recent version(s) of EnterpriseOne while Hubble works with all supported historic 'EOne' versions as well as all supported versions of World. So there will be no comparison if you are running any version of World or are not on a current version of EnterpriseOne supported by OVR. Incidentally, this may be a good reason for investing in Hubble, because you will not need to upgrade your JD Edwards environment if you need transaction level reporting. In particular, the Oracle solution lacks some of the capability of Hubble. For example, the following capabilities are all provided by Hubble:

- Pivoting and drilling within OVR are both limited. In the latter case, drilling is only possible within a specific view while in the former case you cannot pivot over real-time data.
- Calculation capability in OVR is limited: there is no support for conditional or combined row and column calculations. Also, complex calculations beyond simple arithmetic functions are not supported. In addition, there is no facility for system-wide user-defined aging buckets or time series.
- OVR supports simple hierarchies (simple parent/child) but not multi-dimensional complex hierarchies. Further, hierarchy calculations are not available. Thus OVR will not be suitable for P&L and other financial reporting.

Summary

We could create a flow diagram to represent the different options that are available to you. It would say that if you are a small company with cost issues and no concern for compliance then the best EnterpriseOne or World reporting and query facility would probably be based on a spreadsheet plug-in. If that is not the case and if you are not concerned with financial reporting, perhaps because you already have some other solution installed, then Oracle's suite of solutions is most likely to be the best approach you might take. However, if neither of these conditions applies then you should consider either an Oracle-based solution or one provided by a specialist JD Edwards' solution such as Hubble.

If it comes down to a choice between Oracle and Hubble then the latter would seem an obvious choice. When we first published this paper Hubble was not web-enabled, the visualisations available within it were limited, and there was no complementary business performance management solution. This made a choice in favour of Oracle somewhat easier, albeit that these enhancements to Hubble had already been announced. Today, the advantage of fewer products with better integration, with superior functionality and with a reduced implementation time would appear to be overwhelming.

Nevertheless, the situation will often not be as clear-cut as this. For example, Hubble's business performance management solution is not as mature as Oracle's and it may (or may not: we have not examined this as a part of this revision) lack features that the more mature product incorporates. Similarly, you might already be using OBIA in other parts of your organisation or against other datasets and you would prefer not to have (yet) another business intelligence product.

In conclusion we do not believe that it would be sensible to simply adopt Oracle's solution out of inertia. It will make much more sense to consider a single purpose-built solution that addresses the breadth of financial and business information requirements holistically, as a possible alternative to the Oracle stack. We would expect that a significant number of companies that take this approach would decide not to follow the Oracle path.

FURTHER INFORMATION

Further information about this subject is available from www.BloorResearch.com/update/2161



About the author

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Philip started in the computer industry way back in 1973 and has variously worked as a systems analyst, programmer and salesperson, as well as in marketing and product management, for a variety of companies including GEC Marconi, GPT, Philips Data Systems, Raytheon and NCR.

After a quarter of a century of not being his own boss Philip set up his own company in 1992 and his first client was Bloor Research (then ButlerBloor), with Philip working for the company as an associate analyst. His relationship with Bloor Research has continued since that time and he is now Research Director focused on Data Management.

Data management refers to the management, movement, governance and storage of data and involves diverse technologies that include (but are not limited to) databases and data warehousing, data integration (including ETL, data migration and data federation), data quality, master data management, metadata management and log and event management. Philip also tracks spreadsheet management and complex event processing.

In addition to the numerous reports Philip has written on behalf of Bloor Research, Philip also contributes regularly to *IT-Director.com* and *IT-Analysis.com* and was previously editor of both *Application Development News* and *Operating System News* on behalf of Cambridge Market Intelligence (CMI). He has also contributed to various magazines and written a number of reports published by companies such as CMI and The Financial Times. Philip speaks regularly at conferences and other events throughout Europe and North America.

Away from work, Philip's primary leisure activities are canal boats, skiing, playing Bridge (at which he is a Life Master), dining out and foreign travel.

Bloor overview

Bloor Research is one of Europe's leading IT research, analysis and consultancy organisations, and in 2014 celebrated its 25th anniversary. We explain how to bring greater Agility to corporate IT systems through the effective governance, management and leverage of Information. We have built a reputation for 'telling the right story' with independent, intelligent, well-articulated communications content and publications on all aspects of the ICT industry. We believe the objective of telling the right story is to:

- Describe the technology in context to its business value and the other systems and processes it interacts with.
- Understand how new and innovative technologies fit in with existing ICT investments.
- Look at the whole market and explain all the solutions available and how they can be more effectively evaluated.
- Filter 'noise' and make it easier to find the additional information or news that supports both investment and implementation.
- Ensure all our content is available through the most appropriate channel.

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