

## **Lessons Learned from Release 12 for the Journey to Fusion**

By Jeannie Dobney and Alyssa Johnson

### **Introduction**

This paper highlights some of the lessons learnt from working with eBS Release 12; lessons that can help us prepare for Fusion Applications. It draws on already published material which is referenced in the end-notes. The paper was however primarily inspired by an observation of Alyssa's during her keynote in Australia during the 2008 AUSOUG / OAUG conference, namely that previews of Fusion Applications (at OpenWorld) made it apparent that the 'baby steps' of R12 were developing to full maturity in Fusion Applications.

### **Release / Support Context**

Oracle have not yet announced a release date for Fusion Applications, however one insider tips that we should not expect a general release during 2009<sup>1</sup>. When released, Fusion will be a "staged release" i.e. Fusion 1.0 will initially not include Manufacturing or Public Sector Applications.

De-support dates for existing releases are currently as follows:

- 11i Premium Support finishes in November 2010
- 11i Extended Support finishes in November 2013
- 12 Standard Support finishes in November 2012
- 12 Extended Support finishes in November 2015<sup>2</sup>

Sustaining Support will be indefinitely available under Oracle's Applications Unlimited program.

Note that Fusion

### **Upgrade or Re-Implement?**

Reports from OpenWorld 2007 of Cliff Godwin's presentation on the upgrade plans for Fusion Applications, indicated that the upgrade to Fusion Apps will be an "A to B" upgrade, i.e. we will need to create a new instance, set up that instance, then move your data from the old instance to the new one.

Given that the scope of change will be so significant, it may be worth considering this as an opportunity rather than a threat i.e. an opportunity to re-implement rather than just to perform a difficult upgrade. Obviously this needs to be carefully considered as the incremental effort will create incremental costs, which need to be justified against the benefits which can be realised. If however, your organisation has significantly changed its business model since you originally implemented eBS, or if you have heavily customised your Applications, a clean slate may well be worth considering.

One of the advantages of considering the move to Fusion as a re-implementation, is that it may stimulate consideration of some new functionality, introduced since your original implementation, which can be leveraged by your organisation. An example of a change which may have been overlooked as a result of purely technical upgrades, would be the introduction of Trading Community Architecture, now absorbed into the Data Hub concept.

A re-implementation may provide the opportunity to re-evaluate your organisations approach to master data and benefit from this functionality enhancement.

### **Lesson 1: Don't Rush**

Our first lesson learned from R12 and associated recommendation for Fusion is not to rush your project. The scope of the migration to Fusion, even if it is positioned as an upgrade, will be non-trivial. There are several reasons not to rush your project:

- Despite Oracle's commitment to quality control, there *will be* some problems to be resolved, plan in some time to obtain a stable environment prior to go-live. The level of problems encountered in Release 12, especially in Payables until 12.0.5 were significant.
- Unless you are forced to, avoid the initial releases. If you must adopt an early release, then accept the fact that problem-solving will be part of your project.
- The scope of procedural change will be significant and such changes will take *time* to absorb, for example in terms of change. Sometimes it is the more subtle changes that will have the most disruptive impacts, some examples are highlighted later in this paper.
- The learning curve for your support team will be considerable. Recommendations for a learning plan starting *now*, are discussed below.

### **Lesson 2: Catalogue your Customisations**

Nadia Bendjedou's excellent presentation on *10 Things You Can Do Now to Prepare for Oracle Fusion Applications*, starts with the recommendation to "Rethink your Customisation Strategy".<sup>3</sup> It is such an important point that it bears repeating here.

Most of us have customized the Oracle applications to some extent, however every customisation contributes to total cost of ownership (TCO) and some of these customisations may not be transferable into Release 12 and beyond that into Fusion Applications. For example Oracle have announced that Oracle Reports is being deprecated, which means you may need to migrate something as basic as your cheque print format to BI Publisher.

Step one is to take inventory of your customisations. Consider starting a spreadsheet which lists the following:

What customisations do you have?

What technology are they built in?

What is the business requirement?

Who is the business owner?

Have you completed an assessment of whether new features make them obsolete?

Finally, include a Hyperlink to your documentation for them.

So what is a customisation? As a starting point, we suggest using On-Demand's CEMLI definition which includes such things as Descriptive Flexfields, - something which we may not immediately consider to be customisations, but which do have impacts on TCO. Refer to Appendix A of this document for a summary of On-Demand's CEMLI framework.

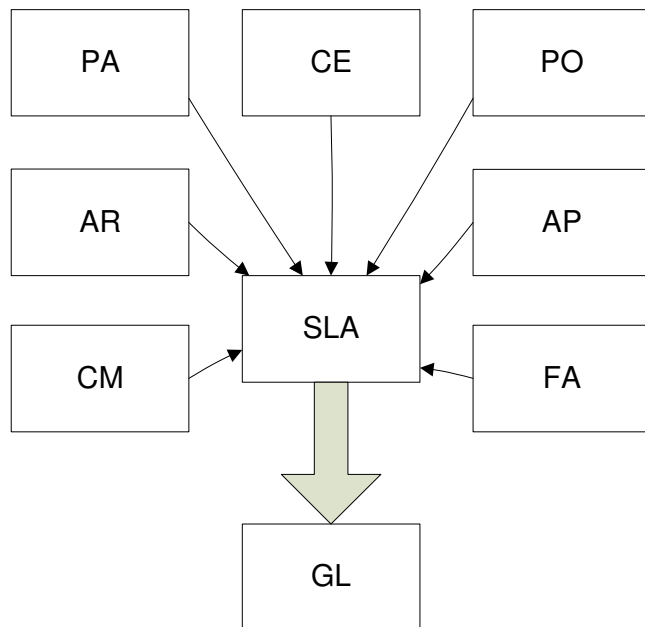
One observation here is that many applications of workflow will be / are being replaced in R12 / Fusion. For example the Account Generators in Fixed Assets and Projects may be used in R12; alternatively you may opt to use sub-ledger accounting (SLA) to replicate the same functionality. So R12 provides you an opportunity to adopt a technology which you will be

obliged to use in Fusion, effectively putting the choice of timing of this migration into your court. All custom workflows will need to be redeveloped in BPEL when you move to Fusion. The future of AME is less clear, however it seems likely that some form of BPEL rules engine will replace it.<sup>4</sup> This example demonstrates the value of having a plan for each customisation, which in turn requires a clear overview of which customisations your implementation includes.

### Lesson 3: Take Care with Sub-Ledger Accounting

R12 introduces some of the changes that will be fully developed in Fusion, so close attention to the impact of these changes is worthwhile. Sub-ledger accounting may be one of these key changes.

When Release 12 was first released, there was a lot of publicity about the move from the Set of Books concept to Ledgers being so fundamental, however experience suggests that the introduction of sub-ledger accounting (SLA) probably has even more impact.



For those not familiar with SLA, it is a new product in Release 12 and a major change, (although it may be almost transparent to many end-users). It is both the rules and the engine that generates the accounting representation of your transactions, and it offers some wonderful opportunities to meet very specific accounting requirements in supportable ways. Participating sub-ledgers include Payables, Receivables, Projects, Assets, Cash Management, Purchasing, Cost Management and Process Manufacturing.

In terms of its mechanics, SLA is a new schema into which all accounting entries are processed before being interfaced to

the General Ledger - and so it alters the way reconciliation and month-end processes run. This simple statement is both fundamental and important - because many of the skills we have learnt over years to address accounting issues at period end may have to be modified. Do not underestimate this change and do invest the time to simulate month-end processes during UAT.

Companies should move from utilising Account Generators in Release 12 to representing their accounting rules in the Sub-ledger Accounting Engine. SLA rules that are in place in Release 12 will be protected in an upgrade to Fusion.

### Lesson 4: Take Care with Legal Entities

The Legal Entity organisation classification has existed for some time but was essentially a placeholder for Financials. In R12 Legal Entity functionality has its own Schema (XLE) and enhanced functionality. Set up can be done via the Legal Entity Manager Responsibility or via GL using the Accounting SetUp Manager (which is the only way to assign Balancing Segment values to Legal Entities).

Briefly, the Legal Entity in Oracle R12 models corporate entities which have the right to transact commercially and the responsibility to pay taxes and submit statutory reports.<sup>5</sup> Establishments. (Oracle HR continue to use the GRE Organisation Classification).

LE's now have a security role in the Applications e.g. they own bank accounts. Key financial transactions are stamped with an LE value, which may default or may be explicitly entered by the user.

The enhanced functionality may not appear to offer your organisation anything worth following up, however you cannot overlook it - as it has a key role and can trip you up if you ignore it. Our recommendation is that you take the time to understand LE's and similar architectural features and what they control in R12 and in Fusion, so that you don't discover any gotcha's after go-live.

### **Lesson 5: Take Care with Role Based Access Control**

User Management (UMX) is another technology available in R12 (and 11i10), which will be developed more extensively in Fusion Applications<sup>6</sup>.

Prior to the availability of this functionality, the 'best' approach seemed to be a spreadsheet mapping Oracle Responsibilities to job roles and identifying the business owner for each area of functionality.

UMX is obviously a vast improvement, provides an auditable solution and requires less effort to administer after go-live, however it does require some additional time to be factored in to the implementation project to design the roles. This is because it shifts work which was typically done informally after go-live previously, to an explicit effort before go-live.

Time and resources need to be planned in to support this.

### **Lesson 6: The Fusion Learning Curve**

There are 2 aspects to this challenge:

- Implementation team / support team training
- End User training

Your *implementation and support team* will have some non-trivial new technologies to master for Fusion Applications. These technologies include the Fusion Middleware suite which is already being leveraged in Release 12.

It will simply not be possible to absorb all these new skills within the timeframe of an upgrade project, so we recommend the approach one of our colleagues has adopted: she identified the fact that one of her core skills (workflow) was going to be deprecated in Fusion Applications and that Release 12 sites would already be using the nominated alternative technology i.e. BPEL. She chose to be an early adopter of BPEL and created a manageable learning plan for herself for the coming year, namely BPEL and BI Publisher.

Oracle provide some wonderful tutorials and learning support materials through their Oracle Technology Network<sup>7</sup> - so where there is a willingness to learn new technologies even constrained training budgets need not prevent us learning these new skills. In Appendix B, we reproduce a section from an earlier paper that addressed the learning curve for implementation team members in more detail.

In an Oracle Fusion related podcast, it was explicitly stated that *end-users* will not require retraining.<sup>8</sup> However, Gartner's whitepaper on Fusion<sup>9</sup>; suggested that the UI changes are extensive implying that end-users will require at least some retraining.

Oracle have done a lot of work on the user interface for Release 12 (the “SWAN” interface) and it seems likely that this is the interface which will be further developed for Fusion. The changes appear to reflect the input of the PeopleSoft UI team and represent a major investment by Oracle.

Release 12 experience has demonstrated that apparently small changes can knock experienced users ‘for six’. For example the new key combination to invoke a list of values in an HTML page (significant because Fusion will be 100% HTML i.e. written in the Applications Framework). For example when introducing Release 12, we found that even though most users like the appearance of BI Publisher reports, some users struggled with some of the available options. This is easily addressed once it is recognised, however it simply wasn’t something we had expected. Another common comment is that the new HTML Customer and Supplier pages are different enough to require considerable adjustment.

Demonstrations of Fusion Applications e.g. at OpenWorld 08, indicate that the SWAN interface introduced in R12, takes wings (!) in Fusion; it has a Web 2.0 look and feel emphasising collaboration and embedded analytics<sup>10</sup>. To get an idea of what this might look like, view MetaLink<sup>11</sup> using the new interface offered there. To some of your users these new features will be very welcome, however to some users who do not use Facebook and similar resources, the functionality on offer may not be intuitive. Once again, consider what sorts of functionality your organisation wants to leverage and plan how to familiarise your users with that functionality.

The project team may have some difficulty predicting this type of problems so it will be worth paying close attention to user acceptance testing and using this as a guideline to what requires some emphasis in end-user training.

Another related issue is process change, where once again subtle changes may have big impacts on established users. For example, we found in R12 that with the introduction of SLA, some of the month-end processes needed to change, different reports needed to be used – and that impacted an already stressful time for our key users. Skimping on UAT is definitely not advisable, as most of these things come out most clearly there.

## **Conclusion**

As the Borg remind us, resistance is futile<sup>12</sup> so the sooner we start to plan for Fusion Applications the easier the migration will be.

Early preparation will make the journey to Fusion much easier. Create a roadmap for your journey to Fusion and plan ahead: As Dwight D. Eisenhower, (34th President of the United States) said “... I have always found that plans are useless, but planning is indispensable.”.

To assist you with planning our User Groups (AUSOUG and the OAUG) and particularly their conferences provide an invaluable way of gathering information about ongoing developments towards Fusion. The investment in attending those conferences is more important now than ever before.

Also consider carefully the option of upgrading to R12 first as a way of creating a staging point on the journey to Fusion. R12 is the first version of the E-Business Suite to run on Fusion Middleware, making it an iteration on the road to Fusion Apps. In addition, many of the technology components and new features in R12 will carry over to the Fusion Applications - upgrading to R12 allows you to move to the Fusion Architecture in an incremental and manageable manner<sup>13</sup>.

## Appendix A: What is a CEMLI?

Oracle define the CEMLI (Configuration/Customisation, Extension, Modification, Localization, and Integration) Framework, which translates into 19 classes of extensions that customers can add to their Oracle systems.

From "Oracle On Demand Development CEMLI Standards and Requirements" see [http://www.oracle.com/technology/oramag/oracle/04-may/o34tech\\_feature.html](http://www.oracle.com/technology/oramag/oracle/04-may/o34tech_feature.html)

*Types of CEMLI*s

### **Configurations**

The following CEMLI

s are used for configuration purposes:

- Profile Options
- Flexfields
- Concurrent Programs
- Request Sets
- Responsibilities
- Menus
- Web Applications Dictionary

### **Extensions and Modifications**

The following CEMLI

s are used for extension and modification purposes:

- Alerts
- Database Objects, such as the following:  
Indexes, Sequences, Synonyms, Tables, Views,
- Database Triggers
- File Systems and Custom Directories (\*)
- Forms
- Libraries such as the following:  
Custom library, Forms library, Reports library
- Ports
- Print Drivers
- Printers
- Procedures, Functions, and Packages such as the following:  
APIs, Functions, Packages, PL/SQL scripts, Procedures
- SQL scripts
- Reports such as the following:  
Reports using Oracle Reports  
Reports using SQL\*Plus Scripts
- UNIX Scripts such as the following:  
Shell scripts
- Workflows

### **Integrations**

The following CEMLI

s are used for integration purposes:

- Inbound Interfaces
- Integration Using Oracle InterConnect and XML Gateway or Database Adapter
- Integration Using XML Gateway and Oracle XML Transport Agent
- Non-Oracle Software Integration
- Other Oracle Software Integration
- Outbound Interfaces
- Portal Integration such as the following:  
Custom Portlets  
Database Portlets  
Portlet Providers  
Web Portlets

Refer Oracle® *E-Business Suite On Demand Reference Guide* (Part #. B10082-07) for further detail, including CEMLI naming conventions etc.

## Appendix B: Implementation Team Training Requirements

This section is reprinted from an earlier paper *Fusion: The Practical Implications* delivered at the AUSOUG 2006 conference (and available on request from the Jeannie). It is reproduced here because it provides some ideas about retraining.

### Q. Will I have to retrain my technical team to support and use Fusion Middleware?

A. Yes, the changes in the middle-tier are substantial and in order to take advantage of the exciting new technology your team will probably need additional skills (detailed recommendations follow).

### Q. What sort of training will my technical team need?

A. This is a difficult question to answer because it will depend on many factors including how job roles are defined, how generous the training budget is and how much your team have already absorbed of the new technologies.

The requirements will also vary within the technical group e.g. for:

- The Database Administrator (including middle tier administration)
- Developers and
- the Applications System Administrator.

At the very least start by identifying the entirely **new products** in the technical stack, and if your site intends to use them, someone will need training for them. BPEL Process Manager would be an example of this sort of requirement.

In the same way, **new features** for existing products need to be absorbed. Some technical staff prefer to attend training, some are happy to read Release Notes and surf Oracle's OTN site – exactly how the learning occurs will have to be individually negotiated.<sup>14</sup>

Underlying all of this however is the **underlying shift to the pervasive use of Java and web applications**, including HTML, XML, and Use Case Modelling. Whilst not everyone needs to be thoroughly conversant with all aspects of these technologies, some level of comfort with them will be required.

**Developers** whose skills currently focus on SQL, PL/SQL, Forms and Reports ultimately require some mix of the following:

- Java basics (possibly as part of JDeveloper training)<sup>15</sup>
- J2EE programming framework
- Object –oriented concepts including Use Case Modelling
- HTML and web applications concepts
- XML concepts (possibly as part of XML Publisher training)
- The BPEL Process Designer product and SOA concepts
- OpenSource concepts and technologies e.g. PHP
- Daily Business Intelligence new features

Note that the above is a mix of both concepts and products.

To attempt to **quantify this for budgeting purposes**, here is a one developer's (fairly modest) training plan with course durations and costs in \$US from Oracle's web-site.

- Oracle JDeveloper 10g: Build Applications with ADF US\$ 3,000 5 Days  
Prereq: Oracle 10g: Java Programming (US\$ 3,000 5 Days)
- Oracle BPEL Process Manager: Services Orchestration US\$ 1,800 3 Days  
Required Prerequisites: Basic knowledge of XML technologies (specifically, XML, XML schemas, XPath, and XSLT) and Web service technologies (for example, WSDL, SOAP, and UDDI) – suggested to be absorbed via technical literature (cost c. \$200 + several days)

**Total cost** = 15 days of time and US \$8 K (AUD \$ 10.5 K) - per developer

Here is an alternative training wish list from another developer on a more ambitious scale:

User Interface / Forms

- JDeveloper 10g
- Java Server Faces
- Application Development Framework (ADF Faces)
- Reporting / Dashboards / Business Intelligence
- XML Publisher

- Business Activity Monitor
- Discoverer 10g
- Portal 10g
- Analytic Workspace Manager
- Siebel Business Analytics

Integration / Security

- BPEL Process Manager (Designer)
- JCA Adapters
- Oracle Internet Directory / Single Sign-On
- Oracle Identity Management

Maintenance / Administration

- Grid Control 10g
- BPEL Process Manager (Console)
- Web Services Manager

This is not an easy wish list to cost<sup>16</sup>, however, suffice to say it is probably 60 days of training (i.e. 3 working months) at a cost of at least AUD \$40,000.

What this indicates is that the training requirements for most existing developers will fall somewhere between these 2 extremes of training wish-lists. Obviously, for most of us it will be impossible to take 3 months off work to skill up – so we will need to start early and be creative in how we approach this learning curve.

One of the requests this panel has heard repeatedly in preparing this topic is that many developers are just as happy to learn using the resources available to them on Oracle’s web-site if they are provided the same time as would be invested for a training course along with access to a “sand-pit” environment.

The **Database Administrator** will probably mainly require new features training for the products he or she administers, for example: Oracle Enterprise Manager, Oracle Application Server and Oracle Identity Management (possibly in conjunction with the LAN administrator). If the DBA is also administering the middle-tier they will require training in administering BPEL Process Manager, Web Cache, Portal, the J2EE environment and the SOA Manager product.

Depending on how technical the **System Administrator**’s role is, they will need some of the training described above for Developer’s, however they will most likely require:

- An introduction to Java, HTML and Web-Applications concepts
- XML concepts (possibly as part of XML Publisher training)<sup>17</sup>
- The BPEL Process Designer product and SOA concepts
- Daily Business Intelligence new features

The user groups can be a wonderful source of broad understanding of these topics: hearing other users talk about how they use these features is often enough for someone like a System Administrator who may not require an in depth understanding but needs to comprehend what the issues are and also be able to talk to the technical team in their own language

## Speaker Biographies

Jeannie Dobney is an independent consultant with over a decade’s experience implementing, supporting and teaching Oracle Applications and Oracle technology. She has been a supporter of Oracle User Groups throughout that time, regularly presenting at user group conferences and has held leadership positions within both AUSOUG and the OAUG. She can be contacted by email at [jdobney@bigpond.com](mailto:jdobney@bigpond.com)

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<sup>1</sup> See Floyd Teter’s excellent blog <http://orclville.blogspot.com/> and specifically the entry for January 25, 2009 for speculation on Fusion Apps release timeframes. Floyd has been closely involved with the Fusion Council since its inception, so he is an excellent source of insider information.

<sup>2</sup> From <http://www.oracle.com/support/lifetime-support-policy.html>

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<sup>3</sup> From *10 Things You Can Do Today to Prepare for Oracle Fusion Applications* by Nadia Bendjedou, Director of Applications Development and available from [www.oracle.com/technology/products/applications/events/oow-2008/10-things-to-do-nadiabendjedou.pdf](http://www.oracle.com/technology/products/applications/events/oow-2008/10-things-to-do-nadiabendjedou.pdf) . This presentation is also available as an Appcast from <http://www.oracle.com/technology/products/applications/index.html>

<sup>4</sup> Oracle provide a white paper <http://www.oracle.com/technology/products/ias/bpel/pdf/owf2bpel.pdf> and refer also to Metalink Note 394387.1.

<sup>5</sup> Refer to David Haimes blog <http://davidhaimes.wordpress.com/2007/12/11/can-i-assign-an-operating-unit-to-2-legal-entities/> and Sanjit Anand's blog at <http://www.oracleappshub.com/release12/release-12-legal-entity-uptake/>

<sup>6</sup> As indicated by Steve Miranda in his preview of Fusion Applications at OpenWorld 2008.

<sup>7</sup> See *Oracle BPEL Process Manager Quick Start Tutorial* and other materials from <http://otn.oracle.com/bpel> and for Developers the BPEL Cookbook at [http://www.oracle.com/technology/pub/articles/bpel\\_cookbook/index.html](http://www.oracle.com/technology/pub/articles/bpel_cookbook/index.html).

<sup>8</sup> Refer to podcast *Oracle's Fusion User Experience is a Key Ingredient to their Customers' Success* May 16, 2006, Cliff Godwin interviews Jeremy Ashley,

<sup>9</sup> Gartner's excellent whitepaper on Oracle Fusion is available from Oracle's web-site <http://www.oracle.com/applications/fusion.html>

<sup>10</sup> Refer to an article at <http://www.pcworld.com/article/150755/.html>

<sup>11</sup> <http://metalink.oracle.com>, you must have an Oracle CSI to use this resource.

<sup>12</sup> "Resistance is futile" is a catch phrase used by the Borg of the Star Trek fictional universe: [http://en.wikipedia.org/wiki/Borg\\_\(Star\\_Trek\)](http://en.wikipedia.org/wiki/Borg_(Star_Trek))

<sup>13</sup> From Floyd Teter's blog <http://orclville.blogspot.com/> October 27, 2006.

<sup>14</sup> There is immense value in Oracle's community of practice OTN for those who are able to learn independently, refer to <http://otn.oracle.com/index.html>

<sup>15</sup> Those seeking an Introduction to Java may find the online Java Tutorial helpful: <http://java.sun.com/docs/books/tutorial>

<sup>16</sup> It is hard to be specific about training requirements not least of all because Fusion is still under construction and thus it is impossible to know what the final technical stack will consist of. The author thanks Basheer Khan for contributing this list.

<sup>17</sup> Oracle Education's website is currently not offering BI Publisher training, however reference manuals can be downloaded for self-study.