Oracle Fusion Applications: An End-User Experience Designed for Productivity
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Executive Overview

In Oracle Fusion Applications, Oracle has designed more than just a new user interface. Oracle has designed an applications user experience. Oracle Fusion Applications represents a revolutionary step forward for business applications software. The new software leverages a customer-driven design process to create a next generation applications experience. This paper outlines the key benefits of this enhanced user experience to customers of Oracle Fusion Applications and shares some of the key customer insights revealed through six years of in-depth customer research. The result: a dramatic improvement in end-user productivity.

Introduction

Historically, enterprise applications have been comprised of siloed, transactional, complex user interfaces that only experts use. This design contributed to the high ownership cost of these applications. The multiday training required made them expensive to support. The end-user complexity reduced productivity because users were required to switch between applications to complete work. And the design failed to empower the emerging knowledge worker tasked with adding real-business value.

"User experience is not only about creating a better-looking user interface, it’s also about understanding how people really get their jobs done and then designing applications that make their jobs easier.”

— Jeremy Ashley, Vice President, Oracle Applications User Experience
As a result of increased Internet use and the rise in online commerce, end-user expectations have evolved. Users believe that applications should be seamless and should enhance their productivity with straightforward common sense designs. A new standard has been set for productivity, and the end-user experience of Oracle Fusion Applications is meeting this standard.
Oracle has made a significant investment in listening to its customers. Oracle has created blended teams of staff from across its acquired companies to create a unique user-experience process that drives customer engagement every step of the way. The result: A new level of productivity in the end-user experience process (Fig. 2)—not just the end-user experience itself.

“Oracle has given Emerson a really great opportunity to participate in the development of Fusion applications. It's been, personally, very exciting for me to be involved all the way along. And my experience in the usability lab was just fabulous.”

— Pam Bateman, Business Solution Manager, Emerson Electric

### Investment in Oracle Fusion Applications End-User Experiences: Listening to Customers

Oracle has made a significant investment in listening to its customers. Oracle has created blended teams of staff from across its acquired companies to create a unique user-experience process that drives customer engagement every step of the way. The result: A new level of productivity in the end-user experience process (Fig. 2)—not just the end-user experience itself.

**Observing**

Oracle sent its 130-person Applications User Experience organization out to companies around the world. The team observed more than 1,500 hours of customer interactions with enterprise applications and witnessed end users’ pain points firsthand.

**Listening**

Before a line of code was written, Oracle enrolled more than 800 customers in its User Experience Customer Participation Program. Oracle shared design concepts, asked questions, and continually talked with customers to make sure the Applications User Experience design team was getting the right feature set, the right business flows, and the right user interface.
Testing

The Applications User Experience team measured how its designs stacked up against real people by testing and retesting these designs in 18 usability labs (15,000 square feet) in 7 locations around the world. The team collected more than 4,000 hours of feedback from users who included sales representatives, accountants, product managers, and shop floor engineers.

Building

What the Applications User Experience team learned from its interactions with these customers produced the 130 user-interface design patterns that are the building blocks of Oracle Fusion Applications. These design patterns make the user experience consistent, unified, easy-to-learn, and easy-to-use across the suite. These design patterns also provide customers guidance on extending the Oracle Fusion Applications user experience.

Increasing Productivity: On Average 26 Percent More Efficient

For Fusion, Oracle invested in the development and testing of a new methodology called Workflow Time Analysis. Oracle usability engineers sat down with expert users on frequently used tasks and refined an algorithm that accurately models actual task times. Applying the algorithm shows that Fusion design improvements should make experienced users more productive by reducing the time that it takes for users to complete frequently performed tasks. Across a selection of tasks, improvements in productivity as modeled range from 6 to 60 percent.

Benefits to Customers: Designed for End-User Productivity from Top to Bottom

The following graphic illustrates a typical process before and after the Oracle Fusion Applications user experience:

![Figure 3. Before and after the Oracle Fusion Applications user experience](image)
Navigate to What You Need Faster

The Oracle Fusion Applications user experience provides the ability to easily navigate to what you need (Fig. 3). No more clicking among siloed applications. The user experience is optimized to one representation of a business flow and better clicks.

Make Better Business Decisions Faster

Embedded collaboration and embedded intelligence are designed to support rapid decision making and problem solving for information workers and to support efficient contributions from heads-down, transaction workers.

Reduce Support and Training Costs

With the complexity reduced and overall experience unified, experienced users will find Oracle Fusion Applications to be a breath of fresh air. The consumer-level experience will help new users learn the product quickly and easily by building on their experiences with desktop applications and Internet Web sites.

Five Key End-User Opportunities Observed and the Oracle End-User Experience Solutions

This section presents five key end-user opportunities that we observed and the Oracle end-user experience solutions.

Opportunity: Gain Productivity with More Efficient Navigation Among Applications

Perhaps the single most important finding from our field observations of end users was the amount of time that end users spent navigating among different applications when working on
one business transaction. Oracle developed four key user experience features to solve this major productivity problem: the **User Interface Shell**, the **Navigator**, the **Watchlist**, and the **Worklist**.

**Solution: The User Interface Shell Provides Unified Access to Your Enterprise Applications**

In today’s generation of enterprise applications, end users are exposed to a variety of user-interface paradigms. In Oracle Fusion Applications, end users are exposed to one: the User Interface Shell (Fig. 4). The User Interface Shell provides a single point of access to all of your Oracle Fusion Applications, as well as associated analytics, collaboration, and search tools. Consistent placement, presentation, and behavior of common user-interface elements in the User Interface Shell results in a cohesive user experience that is easily learned and used by a diverse range of workers. This cohesive user experience saves time and money associated with training and support. In addition, the User Interface Shell is built upon a standards-based architecture—Oracle Application Development Framework (ADF)—to ensure that these enhancements are consistent across the suite.

> “Good carpenters, while working, keep nails near their hammers. In other words, good behavioral organization reflects human activity structure.”

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Don Norman, User Interface Expert, *Logic Versus Usage: The Case for Activity-Centered Design*
The area spanning the top of the User Interface Shell provides tools that are available across the Oracle Fusion Applications suite: the Navigator, Oracle Fusion Applications Search, Recent Items, Favorites, Tags, and Watchlist. The collapsible region on the left contains quick access to tasks, a targeted search feature, reports, and guides for business processes. The large area in the center is the focus of the user's work and contains all of the information and actions required to accomplish a task. The collapsible region on the right contains analytics, notes, related information, and tools (such as customer contacts, supporting collateral, marketing events, notes, and shopping cart) driven by the work being performed in the center pane.

**Solution: The Navigator Provides a Unified View of Everything To Which You Have Access**

Most users of desktop computers already navigate among applications with one click of the mouse, or swap among tasks in the same desktop application using menus. Oracle brings this productivity enhancer to enterprise applications—with full role-based security—in the form of the Oracle Fusion Navigator (Fig. 5). The Navigator provides one unified view of all the Fusion areas to which you have access, regardless of the project, business object, or role on which you are working.
Solution: The Watchlist Provides a List of What You Need to Keep an Eye On

If you are a customer service representative and you log in to your applications today, you would navigate to each application to see what you need to monitor. With Oracle Fusion Applications, when you log in, the Watchlist (Fig. 6) immediately and automatically checks these items for you. You can see at-a-glance what items need your attention and then decide whether to navigate immediately to these items. Oracle provides a predefined Watchlist based on user role, such as the number of open service requests, past-due service requests, and customers with a high-service-level agreement needing instant support. Of course, users can also easily define their own Watchlist items.

![Oracle Fusion Applications Watchlist](image)

Solution: The Worklist Provides a Unified View of Pending Work

Perhaps you are a manager and you have various workflow-enabled items in the system, such as job offers, expense report approvals, and requisitions. In Oracle Fusion Applications, we chose to leverage an already familiar user experience for enterprise applications—the Worklist (Fig. 7)—that typically provides you with a unified view of pending approvals and notifications.
Figure 7: An Oracle Fusion Applications dashboard with a zoomed-in view of the Worklist

The Fusion Worklist has been extended to provide notifications on any business object, using any channel of communication. You will see things routed to you that you haven’t seen before. The system can now notify you to take action before you overspend or lose potential cost savings, and you can decide whether you want to be notified through e-mail, mobile text messages, or fax. By making smart use of Human Workflow (Oracle Service-Oriented Architecture Suite), the Fusion Worklist provides a one-stop shop for approvals and notifications.

Opportunity: Close Business Process Gaps in Current Applications

A deeper level of analysis of our customer data revealed end users missing software experiences that map efficiently to business processes. End users use sticky notes, calendar reminders, job aids, and other documents “outside the system” to help them remember procedures, work using “best practices,” perform monitoring tasks, and find other information and actions in the system. To tackle this problem, Oracle adopted business process modeling as a fundamental component of its application design. Business process modeling uses representations of enterprise processes in collections of structured activities and tasks to capture improved best practices that
are implementation-agnostic. To make this design seamless and transparent to the end user, Oracle created **Fusion dashboards** and **Fusion work areas**.

**Solution: Fusion Dashboards Provide One-Stop Monitoring**

If you submit a purchase order or an expense report and it is rejected, you want to know. If you are a manager, you have even more monitoring responsibility, but you have to dig to see it—and the instructions for doing this might be on a sticky note taped to your computer. Maybe you own a budget and have key performance indicators that you must track daily. Maybe you own a project and you want to see if you are running ahead or behind schedule. Using Oracle WebCenter portlets and role-based access, Fusion dashboards (Fig. 8) let you monitor what’s happening to business objects that are important to you. The dashboards enable you to prioritize your work and evaluate the status of different tasks—before you dive into an area to get work done.

![Oracle Fusion Applications](image)

**Figure 8. Fusion Applications Home: Welcome dashboard**

The end-user entry experience to Oracle Fusion Applications is the Fusion Home page (Fig. 8), which displays multiple tabs or “dashboards.” The Welcome tab is the first dashboard and contains tasks that have been assigned to you, as well as a predefined (and personalizable) list of
“smart” short cuts to areas that need attention in the Watchlist. The rest of the tabs—or dashboards—that appear are driven by the multiple roles that you may play in your company (for example, manager, employee, general accountant, and sales manager).

**Solution: Fusion Work Areas—Where You Complete Your Business Transactions**

While a dashboard is a place for monitoring, a work area (Fig. 9) is a place for getting work done. For core transactions, Oracle has custom-designed work areas that are based on hundreds of hours of customer research. These work areas present the core transactions of any enterprise, such as creating and reviewing invoices, closing books, entering time cards, and managing supply chains. The context-specific assemblies of tasks, reports, analytics, and other information in these work areas are designed from top to bottom to maximize productivity.

![Figure 9. Oracle Fusion Applications work area with the right-side pane collapsed](image)

**Opportunity: Share Context Across Boundaries and Integrate with Personal Work Styles**

Our field research clearly revealed that users need a way to stay in the context of their core transactions and yet easily access contextually related tools. For example, service representatives often collaborated with others about particular service requests. A financial analyst, in the midst of closing end-of-the-quarter books might routinely need access to a particular metric. Or a manager in the midst of writing an appraisal might need access to policy documentation for a particular role. In Oracle Fusion Applications, we designed **embedded collaboration**, **embedded intelligence**, and **embedded user assistance** to meet these needs.
Solution: Embedded Collaboration Connects People and Their Data

A big lesson learned was the importance of supporting ad-hoc collaboration. And who better for us to learn from than sales and service representatives—the masters of constant communication.

By talking with sales representatives, sales managers, help desk personnel, and technical support representatives in high-tech, telecommunication, pharmaceutical, manufacturing, and retail companies, we developed our key Oracle Fusion user-experience core principle: Keep users in the context of the work that they are trying to complete and ensure that the interface is familiar and easy to use.

‘Pete Kuyper, our founder, said that our strength was really in our employees. Enterprise 2.0 will allow our employees to really go from transaction processors to decision makers. They’ll be able to communicate, collaborate, and really coordinate for our customers’ success, and our company’s success. It’s a generational thing. Our new employees expect that capability. And frankly, I’m excited to know that we’re going to get there.”

Steve Prinz, Chief Information Officer and VP for Supply Chain Management, Pella Corp

“Another key value driver we see with Fusion Applications is the philosophy and principle that Oracle has followed in embedding analytics in the application. We have many clients who have gathered gigabytes worth of transactions in their ERP system. And they’re very much looking to turn that data into information. Embedded analytics is going to help do that.”

Jim Hayes, Managing Director for Accenture’s Global Oracle Practice, Accenture
With this in mind, we designed activities, notes, interactions, contextual actions (Fig. 10), group spaces, and tagging—again leveraging WebCenter and ADF. These elements provide end users with the ability to work collaboratively on projects, contracts, sales orders, and so on and leverage elements of Enterprise 2.0 social networking—all in the context of their existing transactions and using a familiar, easy-to-use interface.

**Embedded Intelligence: The Right Data at the Right Time**

Being able to solve problems and make decisions on the spot—that was one of the chief needs that we identified from end users in the fields of bioscience, manufacturing, test and measurement, high tech, public sector, and consumer goods. Oracle embarked on more than 100 hours of pure observation before designing the embedded intelligence that you see in the Oracle Fusion Applications user experience (Fig. 11). These embedded intelligence capabilities provide analytic information in the context of your daily work and always in the context of the transaction on which you are working. Using Oracle Business Intelligence Suite Enterprise Edition and Oracle’s ADF data visualization tools, the end user can see the analytic information

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2 Enterprise 2.0, also known as enterprise social software, is a term describing software used in business contexts that encourages use and collaboration prior to providing structure. Traditional enterprise software imposes structure prior to use.
from inside an application in the same window, without having to drill down or invoke any commands.

Solution: Embedded User Assistance Provides Help That’s Contextual, Relevant, and Concise

Where do you start redesigning help and documentation in a new suite of applications? We started with in-depth interviews with our own escalation and call center managers to identify the common issues that customers were reporting. This frontline experience drove a paradigm shift in how we designed what we now call user assistance (Fig. 12). Rather than reams of documentation or difficult-to-navigate pages of text, we’ve designed Oracle Fusion Applications Embedded User Assistance to provide you with highly contextual, focused information, relevant to the task in front of you.
Opportunity: Make the User Experience As Easy to Use as the Internet

We’ve found again and again that users are looking for software that is easy to use. They don’t want to “learn the user interface.” They just want to get their work done. To better support this need, Oracle designed an Internet-like, consumer-level experience with Recent Items, Favorites, and Search.

Solution: Recent Items Feature Presents What You are Working On Right Now

Do you ever ask yourself, “How do I go back to the last expense report that I submitted?” The Oracle Fusion Recent Items feature enables users to quickly navigate back to recently visited business objects—from expense reports to purchase orders to appraisals. The ability to “go back” is a user experience that many users are already familiar with when browsing on the Web, when they go back to recently visited Web sites. Recent Items (Fig. 13) provides an instant productivity gain by enabling users to quickly and efficiently access needed information with one click.

Figure 12. Oracle Fusion Applications embedded user assistance

Figure 13. Recent Items menu
Solution: Favorites Feature Presents What You Want To Go Back and Review

Perhaps getting back to a previously visited business object quickly is not the problem that you are trying to solve. Instead, returning to a particular location within an application is what you need. You may be a customer service technician who has several key “bookmarks” within the Fusion Applications suite that you use to solve customer problems. The Favorites feature (Fig. 14) within Oracle Fusion Applications leverages the end-user experience of browsers, but incorporates an enterprise context by resolving the current access level of the user.

Solution: A Search Similar to an Internet Search, Yet Enterprise Secure

Knowledge workers can spend up to 24 percent of their days looking for information. Good search tools help these workers find this information (and then use it) more quickly. Users’ expectations about the ease of use for search tools are high, because such searches are so easy for users to perform on the Internet. At the same time, search in an enterprise context has to balance the need for access control. The Fusion Applications Search feature (Fig. 15), based on Oracle Secure Enterprise Search, provides the simplicity of an Internet-like search with the specificity that enterprise applications users demand.

3 IDC (March 2005). The Hidden Costs of Information Work
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Figure 15. Oracle Fusion Applications Search feature


The end users that we observed were comfortable with the highly interactive, desktop user experience. They liked the ease with which they could drag, drop, sort, and personalize their work. Oracle designed Oracle Fusion Tables and ADF Desktop Integration to provide a rich, interactive experience.

Solution: Fusion Tables Save Users Time and Money by Allowing Inline Editing of Table Data

Oracle Fusion Tables (Fig. 16)—an out-of-the-box ADF component available across the suite—are designed to save users time by creating a familiar spreadsheet-like experience. We understand that end users find tremendous value in common spreadsheet features, such as searching, sorting, manipulating columns, and editing data within a cell. Fusion Tables decrease training time and reduce time spent moving data into spreadsheets. Fusion Tables also save companies money by reducing their need for third-party spreadsheet applications.
Some tools, like spreadsheets, are just so good at what they do that we wanted to find ways to better leverage them for the Oracle Fusion Applications user experience. Do you have power spreadsheet users? Mass data entry needs? Want to e-mail spreadsheets to colleagues and get their input? Want to work offline on several what-if scenarios (for example, on a budget) and don’t want to lose your changes? Oracle ADF 11g Desktop Integration (Fig. 17) is intended to provide an integrated user experience—with users working in the Web application and then seamlessly moving into a spreadsheet experience—with no visible backend integration exposed.
Figure 17. Oracle ADF 11g Desktop Integration showing a spreadsheet launched with one click from an Oracle Fusion application
Conclusion

The Oracle Fusion Applications end-user experience is first and foremost a unified user experience. Consider these points:

1. Oracle Fusion Applications end-user experience is the result of thousands of person hours spent observing and talking with our customers as they tested our end-user designs to ensure that they deliver real business value.

2. Oracle Fusion Applications end-user experience leverages Oracle's best-in-class technology. Fusion Middleware has enabled:
   - A consumer-level experience, providing desktop power in a “Web-top” application
   - Tools and information that are driven by your role and are contextually related to the work in front of you, enabling rapid decision making, collaboration, and insight for problem solving

3. Oracle has designed a complete end-to-end user experience, resulting in more productive workers and better clicks.