

PeopleTools to Fusion Quick Reference Guide

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Developer guides are shipped with JDeveloper for easy access. These guides can be found from the JDeveloper Start Page or online on the Oracle Technology Network and are a great resource for learning JDeveloper and ADF.

INTRODUCTION

The development environment for PeopleSoft Applications Unlimited is and will remain PeopleTools. While PeopleTools continues to evolve, Fusion Applications are being built with a new generation of tools, Fusion Middleware. JDeveloper and Oracle's Application Development Framework (Oracle ADF) are two of the key technologies of the Fusion Middleware stack that developers will use to build their core applications.

The Fusion Middleware stack brings a whole host of opportunities and possibilities to the world of enterprise application development. However, this new world and all the new terms and language can seem daunting to a developer who is used to PeopleTools. One of the best ways for PeopleTools developers to be introduced to the Fusion Development environment is to compare the concepts and terminology between the toolsets. Although they don't always align quite right, there are enough similarities to get started.

COMPARISON OF FAMILIAR CONCEPTS BETWEEN PEOPLETOLS AND FUSION MIDDLEWARE

The below table comparing the Applications Unlimited to the Fusion Applications environment is written specifically for PeopleTools developers. This is not an exhaustive list and will continue to be lengthened.

Applications Unlimited	Fusion Applications
PeopleTools	Oracle Application Development Framework (Oracle ADF).
Application Designer (pside.exe)	JDeveloper (jdeveloper.exe)
PeopleSoft Application Server (psadmin.exe) and Web Server (startpia)	Oracle Application Server or a J2EE Web Application Server with ADF Runtime Installed
PeopleTools Tables Psrecdefn, psfielddefn, pspaneldefn etc.	XML Files

Want hands on experience building a Fusion Web Application?

Use cue cards to guide you through the steps of building a Fusion Web application. Cue cards can be found in JDeveloper both in the Start Page or under the Help Menu.

Record and Field Definitions	ADF Business Components
PeopleCode	Java
Page	JSF Page, JSF Page Fragment
Grid, Scroll Area, Drop Down List, Button etc.	ADF Faces Components
Component	ADF Task Flow
Component Buffer	Application Module
Application Designer Build Project	ADF Offline Database Designer

Oracle Application Development Framework (Oracle ADF).

Oracle ADF is an end-to-end application development framework that allows you to develop enterprise solutions that search, display, create, modify, and validate data using web, wireless, desktop, or web services interfaces. Just like PeopleSoft applications are built on PeopleTools Framework, Fusion Applications are built on Oracle ADF. Oracle ADF builds on Java Platform, Enterprise Edition (Java EE) standards and open-source technologies to simplify and accelerate implementing service-oriented applications. Whereas PeopleTools is a black box type of development environment, Oracle ADF is more of a white box. This brings with it many new opportunities but also requires more investment from developers in learning the basic aspects of the underlying technology.

JDeveloper (jdeveloper.exe)

Just like Application Designer was the Integrated Development Environment (IDE) for building PeopleTools applications, JDeveloper is an IDE for building web applications. JDeveloper covers the full development lifecycle from design to deployment, with drag-and-drop data binding, visual UI design, and team development features built-in. JDeveloper can be used to build ADF Applications but is also an IDE for other technologies such as HTML, JSF, Java, and Swing.

Oracle Application Server

PeopleSoft Application Server (psadmin.exe) and Web Server (startpia) are the runtime environment required to deploy and run your PeopleTools applications. The runtime environment required to deploy and run your ADF web applications is Oracle Application Server or an alternative J2EE Web Application Server with ADF Runtime Installed. JDeveloper also comes with an embedded integrated server for testing and debugging your applications. Hence, you don't need to deploy your application to the main application server to test it like you do with PeopleTools.

Meta Data XML Files

Unlike PeopleTools metadata which is stored in the database in various PeopleTools tables (psrecdefn, psfielddefn, pspaneldefn etc.), ADF metadata is captured and stored as XML. For instance, when you create a new page called CreateOrder, a CreateOrder.jsx file is created in your project. As you drag and drop components onto your page in the visual editor, XML tags for these components and their attributes are added to the XML file. In contrast to PeopleTools where the only way to alter PeopleTools metadata is through the Application Designer, a developer can directly edit the source of the XML file in addition to using the visual editor.

ADF Business Components

Business Components represent the logical data model for your application. The Entity Object and its attributes map to the database tables and columns, just like the record definition. Entity Objects have declarative validation and business logic. The View Object is used to create different views of the various entities, like the PeopleTools Record Definition of type View, but doesn't require an actual view to be created in the database, which significantly reduces the number of views in the database. View Objects allow developers to create logical business objects like Person, Order etc. Attributes that don't represent columns in the database, i.e. calculated fields, can easily be added to view objects. This removes the need for derived records. Business logic can be added to the Business Component objects at the various layers just like record and field PeopleCode.

Java

In PeopleTools, PeopleCode is the language that is used for business logic when declarative or definitional development isn't possible. In ADF, the language used for business logic is Java.

JSF Page, JSF Page Fragment

This is the canvas for your User Interface. Developers drag and drop components such as tables, forms etc. onto their JSF page to create the user interface for users. They can drop HTML, JSF, or most likely, ADF Faces components onto their page.

ADF Faces Components

ADF Faces is a set of over 100 components for developers to use to create their pages. ADF Faces UI components include advanced tables with column sorting and row selection capability, tree components for displaying data hierarchically, color and date pickers, and a host of other

components such as menus, command buttons, shuttle choosers, and progress meters. ADF Faces components provide very interactive web 2.0 features such as drag and drop and partial page rendering.

These ADF Faces components bind to the business object layer just as panelfields are bound to underlying recfields.

ADF Task Flow

The ADF Taskflow defines your transaction boundaries like your component definition. You define the pages that are a part of your transaction and the navigational flow between your pages and across your transaction.

Component Buffer

At runtime, the component buffer is the representation of your data structures and business logic for your transaction. It maintains the current row, state, and saving of the data to the database etc.

Application Module

The Application Module is the equivalent of the Component Buffer but is defined with your ADF Business Components. This allows for separation between your data/business logic and your user interface. You can test and run your application module in JDeveloper without having a User Interface.

Application Designer Build Project

ADF Offline Database Designer

In PeopleSoft, you create record definitions and build your tables in Application Designer, based on the record definition. JDeveloper and ADF provide a number of sophisticated tools to design, diagram and maintain your database schema. This technology is called the ADF Offline Database Designer



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