**PeopleTools 8.54 Overview**

PeopleTools provides the underlying technology for PeopleSoft applications. All PeopleSoft applications, such as Human Capital Management and Customer Relationship Management are built, deployed, and maintained using PeopleTools.

With PeopleTools you can:
- Develop new applications or customize existing applications.
- Administer applications that you have deployed within your organization.
- Provide decision support and reporting functionality to decision makers.
- Integrate PeopleSoft applications with other PeopleSoft applications or third party applications.
- Upgrade and update your applications as part of system lifecycle management.
- The area of PeopleTools technology contains over 40 tools, utilities, and technologies. This document provides brief introductions of each tool or technology, and presents two frameworks with which you can gain a better understanding of the delivered technology, how to categorize the tools, and when to use particular tools.

### Development Tools

- Application Engine
  - Application Engine is designed to help you develop, test, and run background SQL processing programs.
- Global Technology
  - Oracle's PeopleSoft applications are functionally equipped for implementation in global enterprises.
- Fluid User Interface Developer’s Guide
  - The PeopleSoft Fluid User Interface is designed to be a significant enhancement to the PeopleSoft’s 'classic' user interface, which has been the interface display on browsers for PeopleSoft end users for well over a decade. The PeopleSoft Fluid User Interface moves away from pixel-perfect page layout and provides greater flexibility with the enhanced use of cascading style sheets (CSS3), HTML5, and JavaScript (if needed).
- PeopleCode API Reference
  - Contains information about certain application classes delivered with Oracle's PeopleTools, as well as specifics about each class's methods and properties.
- PeopleCode Developer’s Guide
  - PeopleCode is the proprietary language used by PeopleSoft applications.
- PeopleCode Language Reference
  - Contains information about PeopleCode built-in functions, meta-SQL, system variables, and meta-HTML.
- Application Designer Developer’s Guide
  - PeopleSoft Application Designer is the core development tool used to build and modify PeopleSoft applications.
- Documents Technology
  - PeopleSoft documents technology includes a Document Builder, a PeopleCode API, and several utilities that enable you to create, manage, and test documents.
- Optimization Framework
  - PeopleSoft Optimization Framework provides a foundation for building applications that use the optimization-based, decision-making capability in the PeopleTools environment.

### Search Technology

The PeopleSoft Search Framework provides a standard, declarative method for creating, deploying, and maintaining search indexes for all of your PeopleSoft applications.

### Mobile Application Platform

The PeopleSoft Mobile Application Platform (MAP) is a framework for building mobile applications.

### Portal Technology

In PeopleTools, portal technology consists of PeopleSoft Pure Internet Architecture and the various systems, code, and standards used for creating and managing portals.

### Reporting and Analysis Tools

- **Analytic Calculation Engine**
  - Analytic Calculation Engine comprises a calculation engine plus several PeopleTools features that enable application developers to define both the calculation rules and the display of calculated data within PeopleSoft applications for the purposes of multidimensional reporting, data editing, and analysis.
- **BI Publisher for PeopleSoft**
  - Oracle Business Intelligence Publisher (BI Publisher, formerly XML Publisher) is an enterprise reporting solution that streamlines report and form generation.
- **Crystal Reports for PeopleSoft**
  - Crystal Reports for PeopleSoft enables you to generate both standard and custom-printed reports containing data from your PeopleSoft applications.
- **PS/nVision**
  - PS/nVision retrieves information from your PeopleSoft database and places it into a Microsoft Excel spreadsheet, in a form that helps you see the big picture, explore details, and make decisions. You use familiar Excel commands to format and analyze the data. With PS/nVision, you spend your time analyzing results rather than summarizing data and entering it into a spreadsheet.
- **Cube Builder**
  - PeopleSoft Cube Builder is an extract-transform and load (ETL) application that enables you to use PeopleSoft Query and PeopleSoft Tree Manager to build Essbase applications and online analytical processing (OLAP) databases.
- **Pivot Grid**
  - PeopleSoft Pivot Grid supports operational dashboard reporting within the PeopleTools framework to provide a pivot table and chart representation of data using PSQuery and component data source. The framework also enables you to see different views of the data, as in a Microsoft Excel pivot table, and the same data is also available in a chart view.
- **Process Scheduler**
  - PeopleSoft Process Scheduler is a centralized tool that enables application developers, system administrators, and application users to manage PeopleSoft batch processes.
- **Query**
  - PeopleSoft Query is an end user reporting tool. With PeopleSoft Query, you can extract the precise information that you are looking for by using visual representations of your PeopleSoft database, without writing SQL statements.
- **Tree Manager**
  - PeopleSoft Tree Manager, the PeopleTools feature you use to create and maintain hierarchical relationships, such as trees. With PeopleSoft Tree Manager, you represent data graphically to show a hierarchy.
- **Reporting Web Services**
  - A web service provides external applications a web-services-based means of accessing PeopleSoft data. Web services are implemented through the PeopleTools Integration Broker (IB) framework. The Integration Gateway web application receives all the web service requests and forwards them to the Integration Engine (application server) for processing.
- **SQR Language Reference for PeopleSoft**
  - SQR for PeopleSoft is a powerful enterprise reporting system that provides direct access to multiple data sources. The SQR for PeopleSoft tools enables you to create clear, professional reports from complex arrays of information systems.
- **SQR for PeopleSoft Developers**
  - SQR for PeopleSoft is both a language and a set of tools that enables you to create professional reports.
**Integration Tools**

- **Feed Publishing Framework**
  The Feed Publishing Framework provides user interfaces and application programming interfaces (APIs) for feed definition and maintenance, feed searching and subscription, as well as feed document generation and delivery.

- **Integration Broker Service Operations Monitor**
  The Integration Broker Service Operations Monitor provides the following features: 1) Status on queues, nodes, and individual service operations. 2) You can also view and edit service operation XML. 3) Control and administration of domains that have publication and subscription (pub/sub) servers running against the current database. 4) Ability to activate or deactivate domains, recover from stalls, and so forth. 5) Workflow notification of error messages and archival of service operations. 6) Batch processes for error notification and service operation archival.

- **Integration Broker Testing Utilities and Tools**
  The Integration Testing Utilities and Tools provides Send Master utility, Simple Post utility, Integration point test automation tools, Handler Tester utility, Transformation Test utility, Schema Tester utility, Generate SOAP Template utility, Service Operation Testing utility and Provider REST template utility.

- **Component Interfaces**
  A component interface is a set of application programming interfaces (APIs) that you can use to access and modify PeopleSoft database information programmatically.

- **Integration Broker**
  PeopleSoft Integration Broker performs asynchronous and synchronous messaging among internal systems and third-party systems, exposes PeopleSoft business logic as web services to PeopleSoft and third-party systems, and consumes and invokes web services from third-party and PeopleSoft systems.

- **Integration Broker Administration**
  Integration Broker Administration performs system administration tasks in PeopleSoft.

- **MultiChannel Framework**
  PeopleSoft MultiChannel Framework (MCF) provides the tools that are required to support multiple channels of communication between customers (users) and agents. Some PeopleSoft applications, such as an email response management system (ERMS) from PeopleSoft CRM, use PeopleSoft MultiChannel Framework or you can develop your own applications on the framework that is provided.

- **Supported Integration Technologies**
  EDI Manager, Outgoing Forms API and Open Query ODBC Driver and API.

- **Workflow Technology**
  Workflow capabilities enable you to efficiently automate the flow of information throughout your enterprise, crossing both application and functional boundaries. PeopleSoft Workflow Technology consists of a powerful set of tools that enables you to automate time-consuming business processes and deliver the right information to the right people at the right time. You can merge the activities of multiple users into flexible business processes to increase efficiency, cut costs, and keep up with rapidly changing customer and competitive challenges.

**Lifecycle Management Tools**

- **Change Assistant and Update Manager**
  Oracle's PeopleSoft Change Assistant is a standalone, Windows based, Java program that orchestrates the process of updating or upgrading your PeopleSoft system.

- **Application Designer Lifecycle Management Guide**

- **Change Impact Analyzer**
  Change Impact Analyzer is a tool installed separately from PeopleSoft PeopleTools that helps you determine the impact of specific changes you plan to make during an application upgrade. It's an interactive program where you can see the relationships of PeopleSoft definitions in a hierarchical view.

- **Setup Manager**
  Setup Manager is a tool that helps you implement PeopleSoft applications by using a project and predefined tasks to produce a setup task list that is specific to your implementation project.

- **PeopleSoft Test Framework (PTF)**
  PTF automates various tasks within the PeopleSoft application, primarily functional testing. Automating functional testing enables testers to execute more tests with greater accuracy during a shorter time.

- **Data Migration Workbench**
  Data Migration Workbench facilitates the Configuration Management process using Application Data Sets (ADS) as its underlying transport technology.

**Functional Updates**

- **Activity Management**
  "Marks and Exams" describes a comprehensive design for calculating results within a course structure. Institutions require granular grading structures and calculation functionality to evaluate a variety of student assignments, attendance and course level examinations.

- **Evaluation Management System**
  The Evaluation Management System feature is not tied to a singular module within Campus Solutions (for example, Application Evaluations); it is intended to create a ‘generic’ evaluation solution which can be leveraged across Campus Solutions, including people, organizations, and departments or faculties. The feature is flexible enough that it can support many different models of an evaluation review.

- **Program Enrollment**
  Program Enrollment describes an educational model where a student must generally complete a strictly defined set of courses towards the completion of their academic objective in a specified sequence; each of which are often structured in a series of levels or stages, where one stage must be successfully completed before a student can progress and enroll in the next set of courses.

- **Research Enrollment Tracking**
  The Research Enrollment Tracking feature is intended to provide a complete set of operations for administrators to manage their graduate research candidates.

- **Rules Engine**
  The Rules Engine provides a non-programmer user interface to create complex business rules.

- **Student Activity Guides**
  Activity guides are a PeopleTools feature that allow you to define guided procedures for a user or group of users to complete. Users are presented with a list of actions, or tasks, that need to be completed to finish the procedure.

- **Accessibility**
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- **Application Designer**
  To align with design standards, for PeopleTools 8.53, pages created with Application Designer will have right aligned field labels.

- **Application Engine**
  PeopleTools 8.54 will include enhancements to streamline Application Engine Trace files.

- **User Experience Design**
  A new style sheet makes all aspects of a PeopleSoft application more contemporary and visually pleasing.