Oracle Fusion Cloud Student Management

Implementing Student Management

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Get Help

There are a number of ways to learn more about your product and interact with Oracle and other users.

Get Help in the Applications

Some application pages have help icons to give you access to contextual help. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. If the page has contextual help, help icons will appear.

Get Support

You can get support at *My Oracle Support*. For accessible support, visit *Oracle Accessibility Learning and Support*.

Get Training

Increase your knowledge of Oracle Cloud by taking courses at *Oracle University*.

Join Our Community

Use *Cloud Customer Connect* to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, suggest *ideas* for product enhancements, and watch events.

Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the *Oracle Accessibility Program*. Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to *oracle_fusion_applications_help_ww_grp@oracle.com*.

Thanks for helping us improve our user assistance!

1 Overview

Overview of Oracle Student Management Cloud Implementation

Student Management is a cloud-based student information system that provides flexible and extensible business flows that enable your institution to manage traditional and continuing education programs, support student enrollment, maintain students' personal information, and manage their payments.

Oracle Financials Offering

Before you implement Student Management, you must first implement Oracle Financials. You have to set up these components in the Financials offering to enable Student Management to support processes like managing student receivables, billing, collections, and cashiering:

- Enterprise Structures and General Ledger
- Receivables
- Payables
- Payments

For information about this implementation, see "Implement Financials for Student Management" in this guide.

Student Management Offering

After implementing Financials, you can then start an implementation of Student Management. A user with the Application Implementation Consultant role (ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB) must opt into the offerings applicable to your business requirements. Refer to the Oracle Applications Cloud Using Functional Setup Manager guide to manage the opt-in and setup of your offerings.

Here are the primary functional areas that you can configure in the Student Management offering.

Functional Area	Description
Academic Structures	Configure academic structures including institutions, facilities, and academic staff.
Student Structures	Configure student structures including tuition and fees and personal data.
Curriculum Structures	Configure curriculum structures including result sets, program types, and curriculum tags.
Admissions Structures	Configure overall admissions settings, as well as admissions application forms and action reasons.

For the full list of functional areas and features in this offering, use the Associated Features report that you review when you plan the implementation of your offering.

Getting Started

Use the Related Documents section of the Offerings work area in the Setup and Maintenance work area to view reports for the Student Management offering. Here's what these reports include:

- Lists of setup tasks
- Descriptions of the options and features you can select when you configure the offering
- Lists of business objects and enterprise applications associated with the offering

Implementation Tasks

Use these work areas to Implement Student Management:

- Student Management offering in the Setup and Maintenance work area
- Curriculum work area
- Communications work area

In the Student Management offering, show all tasks for each functional area:

- Academic Structures: for Student Records setup
- Curriculum Structures: for Student Records setup and Student Advising setup
- Student Structures: for Campus Community and Student Financials setup
- Admissions Structures: for Admissions setup

In the Curriculum work area, create curriculum items such as courses, programs, and academic groups.

Refer to these chapters in this guide for further information about implementing Student Management:

- Campus Community
- Student Records
- Student Financials
- Admissions
- Student Advising

Rapid Implementation

You can also complete many Student Management setup tasks using the Rapid Implementation process.

Security Reference

The tasks that people can do and the data that they can see depend on their roles, duties, and privileges. For information about these factors, see:

- *Securing Student Management*
- *Security Reference for Student Management*

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Implement Student Records
- Implement Campus Community
- Implement Student Financials
- Plan Your Implementation

Related Guides

You can refer to these guides as you implement Oracle Student Management Cloud.

Implementation Guides

Here are the related guides used during implementation.

Guide	Description
Oracle Student Management Cloud Getting Started with Your Student Management Implementation	Provides a high-level introduction to some best practices for implementations of Oracle Student Management Cloud.
Oracle Student Management Cloud Implementing Student Management	Contains conceptual information and procedures needed to implement components and features of Oracle Student Management Cloud.
Oracle Student Management Cloud Securing Student Management	Contains information to help setup users and sales administrators configure access to Oracle Student Management Cloud functionality and data.
Oracle Applications Cloud Security Reference for Common Features	Lists the predefined security data that's included in the Student Management offering.

Configuration Guides

Here's a common cloud configuration guide.

Guide	Description
Oracle Applications Cloud Configuring and Extending Applications	Describes the tools and concepts for configuring applications.

Common Applications Guides

You may want to consult these guides for common features.

Guide	Description
Oracle Applications Cloud Getting Started with Oracle Cloud	Outlines the basics of getting started with your Oracle cloud service.
Oracle Applications Cloud Using Functional Setup Manager	Describes how to use Oracle Functional Setup Manager to implement applications, setting up security to use it, and describes the Offerings, Features, Business Process, and Related Documents.
Oracle Applications Cloud Understanding Enterprise Structures	Explains how to use the Oracle Applications Cloud enterprise structures to meet your company's legal and management objectives.
Oracle Applications Cloud Using Common Features	Provides an overview of the application functionality that's common across the applications.

2 Implement Financials for Student Management

Overview of Financials Implementation for Student Management

Student Management uses Oracle Financials Cloud to enable you to manage and calculate students' financial information.

It's strongly recommended that you consult a core Financials consultant, implementation partner, or systems integrator to help you implement Financials. There are elements to setting up an enterprise structure that you have to be aware of, which may impact your success in completing this implementation.

Also, it's assumed that this is your first time to implement Financials. To begin, follow the procedures in the order they appear.

Create Implementation Users

Among the initial activities when setting up Oracle Cloud applications is creating users who perform setup tasks. Oracle creates an initial user for you when your Oracle Cloud environment is provisioned.

The initial user can create other users, known as implementation users, to help with setting up the application.

Create TechAdmin

TechAdmin performs the technical or security setup, including locating and resolving issues in your implementation.

1. Sign in to your environment.
2. In the Setup and Maintenance work area, go to the **Create Implementation Users** task in the Initial Users functional area.

   The Security Console page appears. This may be a new tab on your browser.
3. On the User Accounts page, click **Add User Account**.
4. In User Information, fill out these fields:

Field	Value
Last Name	Enter a name.
Email	Enter a valid email address.
User Name	TechAdmin

Field	Value
Password	Assign a password.
Confirm	Enter the password you assigned.

5. Click **Add Role.**
6. Use these codes to search for these roles:

Code	Role
ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB	Application Implementation Consultant
ORA_FND_IT_SECURITY_MANAGER_JOB	IT Security Manager
ORA_FND_DIAG_ADMINISTRATOR_JOB	Application Diagnostics Administrator

7. For each role that appears in the search result, click **Add Role Membership**. You've assigned the role to TechAdmin.
8. When you're done adding the roles, click **Done**.
9. Click **Save and Close**.

Create FINUser

FINUser performs functional setup. This user also does most of the tasks to set up Oracle Financials Cloud.

1. While you're still on the Security Console page, click **Add User Account**.
2. In User Information, enter **FINUser** in the **User Name** field, then fill out the other fields with the appropriate information.
3. Repeat steps 6-8 in the procedure for creating TechAdmin, but use these codes to assign these roles to FINUser:

Code	Role
ORA_FUN_FINANCIAL_APPLICATION_ADMINISTRATOR_JOB	Financial Application Administrator
ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB	Application Implementation Consultant

Code	Role
ORA_CE_CASH_MANAGER_JOB	Cash Manager
ORA_PER_EMPLOYEE_ABSTRACT	Employee
ORA_FND_IT_SECURITY_MANAGER_JOB	IT Security Manager
ORA_AP_ACCOUNTS_PAYABLE_MANAGER_JOB	Accounts Payable Manager
ORA_AP_ACCOUNTS_PAYABLE_SPECIALIST_JOB	Accounts Payable Specialist
ORA_AP_ACCOUNTS_PAYABLE_SUPERVISOR_JOB	Accounts Payable Supervisor
ORA_AR_ACCOUNTS_RECEIVABLE_MANAGER_JOB	Accounts Receivable Manager
ORA_AR_ACCOUNTS_RECEIVABLE_SPECIALIST_JOB	Accounts Receivable Specialist
ORA_GL_FINANCIAL_ANALYST_JOB	Financial Analyst
ORA_GL_GENERAL_ACCOUNTANT_JOB	General Accountant
ORA_GL_GENERAL_ACCOUNTING_MANAGER_JOB	General Accounting Manager

4. When you're done adding roles, click **Done**.
5. Click **Save and Close**.

Enable Financials Offering

To set up Oracle Financials, you must first enable this offering. Within Financials, you then enable the minimum set of features to support Student Management. You can enable other Financials features at a later date.

1. Log in as TechAdmin.
2. In the Offerings work area, enable the **Financials**, **Supplier Invoice Processing**, and **Customer Invoice Processing** features for the Financials offering.

Related Topics

- Configure Offerings

Manage Enterprise Structures

Manage Your Reference Data Set

Reference data sets let you associate transactional data with different business units and multiple ledgers. When you use Oracle Fusion applications, you can share configuration data like payment terms, list of values such as transaction sources that you map to fee types, and so on.

To share data, you use the reference data sharing feature. This data is organized into sets and is also called SetID. When you create a reference data set, the set is used to assign the reference data you use in various transactions to sets. For example, you can assign separate sets for payment terms, transaction types, and fee types to your business units.

A data set called Common Set already exists in the application. You can use Common Set for reference data that you want to share across business units.

> **Note:** You can modify your reference data sets, but be careful when you do so. Changes to a particular set affect your business unit or the application components that use the set.

To create a reference data set

1. Log in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Reference Data Sets** task in the Enterprise Profile functional area.
3. Click **New**, then fill out these fields:

Field	Value
Set Code	Enter a code for your reference data set. The value you enter is automatically converted to uppercase when you save this page.
Set Name	Enter a name for your reference data set.

Field	Value
Description	Enter a description.

4. Click **Save and Close.**

Related Topics

- Reference Data Sets and Sharing Methods
- How do I update existing setup data?

Manage Access to Your Reference Data Set

Reference data sets let you restrict access to your ledgers, ledger sets, and so on. You can limit what users are able to access by assigning each user to specific data sets.

To allow FINUser to manipulate the transactional data in your reference data set, assign these roles:

- Accounts Receivable Manager
- Financial Application Administrator
- Accounts Receivable Specialist

You can assign these roles to other users at a later date so that they can also access your reference data set.

1. Log in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Data Access for Users** task:
    - Offering: Financials
    - Functional Areas: Users and Security
3. Select **Users without Data Access**.
4. In Security Context, select **Reference data set**.
5. In **User Name**, enter **FINUser**, then click **Search**.

    These roles should appear in the search results:

    - Accounts Receivable Manager
    - Financial Application Administrator
    - Accounts Receivable Specialist

    Note that the Security Context Value column is blank. This means these roles assigned to FINUser don't have access to the reference data.

6. Click **Add Row**.

    The Create Data Access for Users page appears.

7. Enter or select these values for these fields:

Field	Value
User Name	FINUser
Role	Accounts Receivable Manager
Security Context	Reference data set
Security Context Value	Select the reference data set you created. You may have to search for this value.

8. Repeat steps 7-8 using these values in the **Role** field:
    - Financial Application Administrator
    - Accounts Receivable Specialist
9. Click **Save and Close**.
10. Click **Save and Close**.

Related Topics

- How do I update existing setup data?

Manage Locations

Locations are used to identify where business units are located. They can also be used for reporting purposes. When you create a location, you must associate it with a reference data set.

Note: You can always add other locations at a later time.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Locations** task:
    - Offering: Financials
    - Functional Area: Enterprise Profile
3. Click **Create**.
4. In **Location Set**, select the reference data set you want this location associated with.
5. In **Location Information**, fill out **Name** and **Code**.

   Code can be any combination of alphanumeric characters that you want to associate with the location you're creating.
6. In **Contact Details**, fill out the required fields in Main Address.
7. Optionally, in **Main Phone**, enter a phone number.

8. Click the arrow next to Save, then click **Save and Close**.
9. Click **OK**, then click **Done**.

Related Topics

- How do I update existing setup data?

Create Your Enterprise Structure

Use the rapid implementation process to implement the common setup objects for enterprise structures.

- Chart of accounts, including value sets, value set values, structures, and structure instances
- Account hierarchies, represented in the application through trees and tree versions
- Accounting calendars
- Legal entities
- Primary ledgers with legal entity assignments to primary balancing segment values
- Business units
- Rules for generating sequential IDs for transactions recorded in the application
- Setup objects along with their accounting specifications for various Financials applications

Using rapid implementation involves:

- Downloading the Rapid Implementation for General Ledger workbook.
- Entering data into sheets.
- Verifying the data you entered and resolving any errors.
- Uploading the chart of accounts file.
- Uploading the general ledger, legal entity, and business unit file together with the rest of the configuration when you successfully upload the chart of accounts.

Before you set up your enterprise structure, here are some items to note:

- It's strongly recommended that you consult a core Financials consultant, implementation partner, or systems integrator for this section of the implementation.
- Make sure you set up your enterprise structures properly to support the financial business processes in Oracle Fusion Student Management Cloud Service. For example, to ensure you can successfully create charges, complete the setup for auto-accounting. For more information, see:
  - AutoInvoice Setup for Oracle Fusion Receivables Cloud (1345332.1) on My Oracle Support at https://support.oracle.com.
  - Setting Up AutoAccounting Rules In Oracle Fusion Receivables (1347760.1) on My Oracle Support at https://support.oracle.com.
- Using rapid implementation to create your enterprise structure is meant for first-time initialization. If you want to modify your configuration, you generally have to make those changes directly in the application. After you initially upload the file that contains your ledger, legal entity, and business unit, the fundamental accounting configuration framework is created and is permanently set. This framework includes the ledger and its assigned chart of accounts, calendar and currency assignment, and the associated definitions of those components. You can create more values for the chart of accounts and extend the existing chart of accounts at any point in the future. The number of ledgers, legal entities, and business units depends on your requirements and is best answered by an implementation partner or systems integrator after they evaluate your requirements.

To set up your enterprise structure:

1. Sign in as FINUser.
2. Click **Navigator** > **Setup and Maintenance**.
3. In the Setup field, select Financials.
4. Click **Tasks**, then click **Search**.
5. In the search field, enter **Create Chart of Accounts, Ledger, Legal Entities, and Business Units in Spreadsheet**.
6. Click **Search**.
7. From the results, select **Create Chart of Accounts, Ledger, Legal Entities, and Business Units in Spreadsheet**.
8. In the window that appears, select **Save File**.
9. Select the area of your hard drive where you want to save the file, then click **OK**.
10. Go to the folder where you saved *RapidImplementationForGeneralLedger.xlsm*, then open the file.

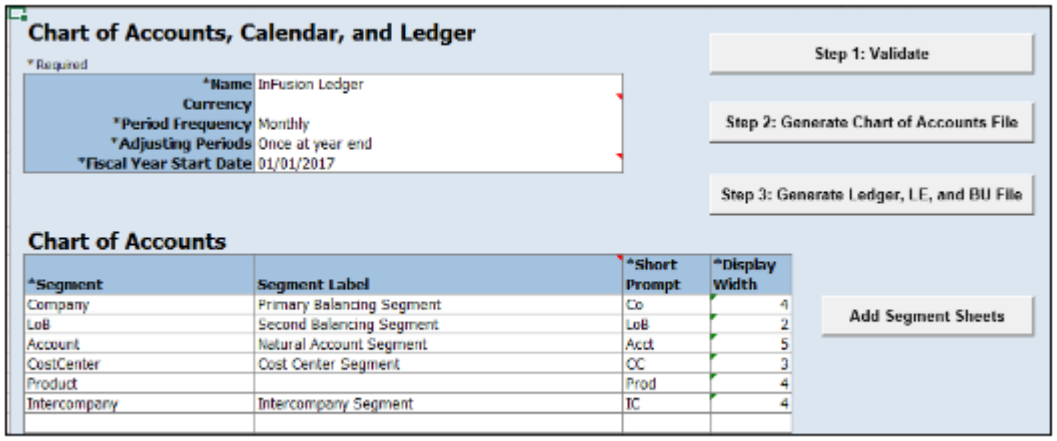
    The workbook includes the following sheets:

    - Instructions
    - Chart of Accounts, Calendar, and Ledger
    - Business Units
    - Companies and Legal Entities
    - Natural Accounts
    - Financial Sequences
11. On the Instructions sheet:
    a. Review the Instructions sheet for important information about how to use the workbook and submit the accounting configuration. The sheet includes data preparation requirements, setup object concepts, and best practices and recommendations. Instructions on how to create additional hierarchies or additional hierarchy versions are also included.
    b. Look at the section *Rapid Implementation Template with Sample Data*. Use the sample completed workbook to familiarize yourself with how to enter data, preview the sample report, and generate the required upload files.
12. On the COA, Calendar, and Ledger sheet, enter the data to create your chart of accounts, calendar, and ledger.

> **CAUTION:** You can't change the chart of accounts, accounting calendar, or currency for your ledgers after the setup is created. The chart of accounts (COA) is made up of multiple segments, so make sure you set up the number of segments correctly. Once it's set, *you can't change it*. If you want to change the number of segments in the future, you have to redo your implementation.

Segments refer to things like business units, departments, natural accounts and so on, the number of which depends on the level of detail you want to collate at a later time. You can't add another segment like Location at a later date if you didn't add it at the beginning of your implementation. Once you set up the number of

segments you require, you can extend the COA by adding new departments or natural accounts, but you can't add a new segment.



Field	Value
Name	Enter the name of your primary ledger. A primary ledger is created for each unique country that's entered in the Companies and Legal Entities sheet. A country code is appended to the name that you specify. For example, one legal entity is based in the United States and another in Canada. If you enter the ledger name of InFusion Ledger, two primary ledgers are automatically created, InFusion Ledger US and InFusion Ledger CA. All of the primary ledgers that are created use the same chart of accounts, account hierarchies, and accounting calendar. Legal entities and their primary balancing segment values are assigned to the primary ledger of their respective countries. If the addresses provided for the legal entities on the Companies and Legal Entities sheet are all in the same country, then only one primary ledger is created.
Currency	If you're not entering legal entities and only a single ledger should be created by the rapid implementation configuration, enter the ledger currency in which you want to maintain accounting for in that ledger. If you're entering legal entities, leave this field blank. The currency is automatically supplied based on the country.
Period Frequency	Select one of the available entries. For accounting calendars created using rapid implementation, you're limited to the period frequency and adjusting periods that are available on the sheet. It's not possible to make alterations to the pattern or specified fiscal year start date once the calendar is created.

Field	Value
	The accounting periods of the calendar are automatically named using a preset format. If you want to change these period names, you have a limited window of time to make those changes. Use the Manage Accounting Calendar page in the application to make the changes before the accounting calendar is used actively. This means when one of its accounting periods is set to Open.
Adjusting Periods	Select the number of periods used to segregate closing, auditing, or other adjustments in the General Ledger. The entries are tracked in the adjusting period and not in your monthly activity.
Fiscal Year Start Date	Enter the start date of the accounting calendar. You can't change the date after you submit this configuration.
Segment	Enter the names for your segments. A segment identifies one of the components of a chart of accounts which, when combined with other segments, creates an account combination for recording transactions and journal entries. A segment is associated with a value set, which provides the set of values for that segment, along with the formatting and validation for those values.
Segment Label	Select segment labels to assign special functionality to segments. This label identifies certain segments in a chart of accounts and assigns special functionality to those segments. o Balancing Segment ensures that all journals balance for each balancing segment value or combination of multiple balancing segment values for financial processes and reports. The three balancing segment labels are: Primary Balancing Segment, Second Balancing Segment, and Third Balancing Segment. o Natural Account determines the account type (asset, liability, expense, revenue, or equity) and specific categorization of the financial activity. Facilitates General Ledger processes, such as closing of the income statement accounts to retained earnings at the beginning of a new fiscal year. o Cost Center facilitates grouping of natural accounts by functional cost types, accommodating tracking of specific business expenses across natural accounts. You can assign these labels only once to a chart of accounts segment. The Primary Balancing Segment and Natural Account Segment labels must be assigned, while the other segment labels are optional. Segments that are assigned these two particular labels can't be assigned any other label. However, segments that are assigned the other remaining labels can also be assigned additional labels provided they're not Primary Balancing Segment or Natural Account Segment.
Short Prompt	Enter a short name for the segment. This is used on applications pages.
Display Width	Enter the segment size.

Field	Value
	Select the size carefully and leave room for growth. For example, if you have 89 cost centers, enter 3 for the display length to allow for more than 100 cost centers in the future.
Add Segment Sheets	Select this button to create sheets for additional segments. Sheets are provided only for the Company and Natural Accounts segments. From the new segment sheet, you can click the Generate Additional Hierarchy button to create more than one hierarchy for any chart of account segment. A worksheet is then automatically created and populated with the data already entered for that segment. Change this data as required for the new hierarchy. You can create additional hierarchies during initial setup, or after the initial setup is done.

13. On the Business Units sheet, enter the name of your business units and related default legal entities.

    Business units are created with the names that you enter. You can enter more than one business unit per ledger. Based on the default legal entity you specify on the Business Units sheet, the business unit is assigned the primary ledger to which its default legal entity is assigned.

Business Units

Name	Default Legal Entity Name
USA Business Unit1	VCC InFusion Cupertino Cherries
USA Business Unit2	VSCC InFusion San Carlos Chocolates
Canada Business Unit1	Infusion Core Canada Ltd.

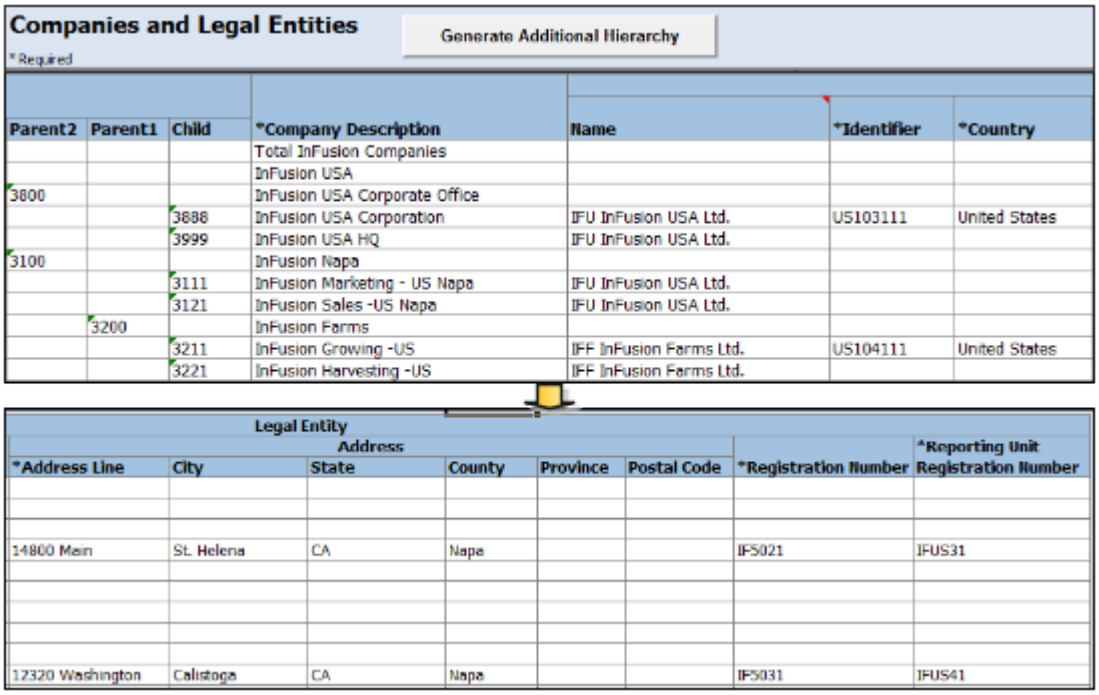
14. On the Companies and Legal Entities sheet, enter parent and child values for your Company segment, which is the segment that's assigned the Primary Balancing Segment label on the Chart of Accounts, Calendar, and Ledger sheet.

    You can:

    - Create up to nine levels of parent values to roll up your companies to meet corporate and local reporting requirements. Enter your legal entities for the child values with the address, registration number, and reporting unit registration number. The registration number identifies legal entities registered for your company and recognized by law for which you want to record and perform transactions. The reporting unit registration number identifies the lowest level component of a legal structure that requires registrations.
    - Click the Generate Additional Hierarchy button to create additional hierarchies for the company segment for reporting or other purposes. A worksheet is automatically created and populated with the data already entered for that segment. Change this data as required for the new hierarchy. You can create additional hierarchies during initial setup, or after the initial setup is done.

      When a new hierarchy sheet is created, the name for that sheet is derived by adding a counter to the sheet name. For example, when you click Generate Additional Hierarchy on the Companies and

Legal Entities sheet, the new sheet is named Companies and Legal Entities 1. When you click Generate Additional Hierarchy again, another sheet is generated with the name Companies and Legal Entities 2.



Companies and Legal Entities

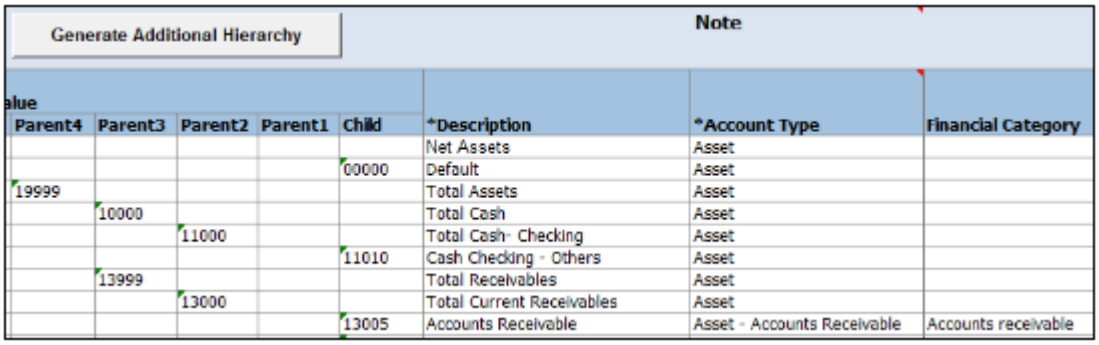
Generate Additional Hierarchy

*Required

Parent2	Parent1	Child	*Company Description	Name	*Identifier	*Country
			Total InFusion Companies			
			InFusion USA			
3800			InFusion USA Corporate Office			
		3888	InFusion USA Corporation	IFU InFusion USA Ltd.	US103111	United States
		3999	InFusion USA HQ	IFU InFusion USA Ltd.		
3100			InFusion Napa			
		3111	InFusion Marketing - US Napa	IFU InFusion USA Ltd.		
		3121	InFusion Sales -US Napa	IFU InFusion USA Ltd.		
	3200		InFusion Farms			
		3211	InFusion Growing -US	IFF InFusion Farms Ltd.	US104111	United States
		3221	InFusion Harvesting -US	IFF InFusion Farms Ltd.		

Legal Entity Address						*Registration Number	*Reporting Unit Registration Number
*Address Line	City	State	County	Province	Postal Code		
14800 Main	St. Helena	CA	Napa			IFS021	IFUS31
12320 Washington	Calistoga	CA	Napa			IFS031	IFUS41

15. On the Natural Accounts sheet, enter account hierarchies, account values, and specify account types.



Generate Additional Hierarchy

Note

alue Parent4	Parent3	Parent2	Parent1	Child	*Description	*Account Type	Financial Category
					Net Assets	Asset	
				00000	Default	Asset	
19999					Total Assets	Asset	
	10000				Total Cash	Asset	
		11000			Total Cash- Checking	Asset	
				11010	Cash Checking - Others	Asset	
	13999				Total Receivables	Asset	
		13000			Total Current Receivables	Asset	
				13005	Accounts Receivable	Asset - Accounts Receivable	Accounts receivable

Field	Value
Parent	Enter parent account values to define hierarchies. Hierarchies are used for chart of accounts mappings, revaluations, data access sets, cross-validation rules, and segment value security rules. The balances cube and account hierarchies are also used for financial reporting, Smart View queries, and allocations.
Child	Enter child account values to define the postable accounts.

Field	Value
Description	Enter descriptions for the segment values.
Account Type	**CAUTION:** Assign account types carefully. If you assign an incorrect account type to a natural account segment value, accounting entries are recorded incorrectly and financial statements are inaccurate. Misclassified accounts are also potentially handled incorrectly at year end, with actual balances either getting zeroed out to retained earnings, or accumulating into the next year. You must assign an account type to each account value. Account types are used in year-end close processes and to correctly categorize account balances for reporting. Select from among general account types and expanded account types. The general account types are: Asset, Liability, Owner's Equity, Revenue, and Expense. Expanded account types provide specialized functionality and are used to: o Identify the intended usage of your natural account values to facilitate automation and enable completion of other required setup objects. For example, assign the Asset - Intercompany Receivable and Liability - Intercompany Payable expanded account types. The Rapid Implementation process then automatically creates a chart of accounts level intercompany balancing rule, which is a required setup for the application to perform intercompany balancing. o Automatically generate fully defined initial Financial Reporting reports and Account Groups based on your enterprise structure. Examples of expanded account types include: - Asset - Accounts Receivable: For Receivables receipt methods - Liability - Accounts Payable: For Payables common options - Owner's Equity - Retained Earnings: For General Ledger ledger options - Revenue - Top Revenues Parent Account: For sample reports and account groups - Expense - Top Operating Expenses Parent Account: For sample reports and account groups You must assign the account types Revenue - Top Revenues Parent Account and Expense - Top Operating Expenses Account to the parent accounts that are your highest level and comprehensive revenue and operating expenses accounts. You can optionally assign the account type of Expense - Top Cost of Sales Parent Account if it's applicable for your scenario. The Generate Financial Reports and Account Groups process, which is automatically submitted when the accounting configuration is created in the application, generates a set of Financial Reporting reports and account groups according to the accounting configuration defined in the workbook. The top parent accounts are used as the basis for deriving the accounts referenced in the reports and in the Account Groups. The immediate descendants of the top parent accounts are used to define the rows on the reports. Depending on whether both the top operating expense and top cost of sales accounts are tagged, different variations of the income statements are generated. If the optional top cost of sales account is provided, the Financial Reporting reports that are income statements also include a gross margin section

Field	Value
Financial Category	Select a value to identify groups of accounts for reporting with Oracle Transactional Business Intelligence. Accounts that are tagged with expanded account types are automatically assigned a financial category. You can override the default category or leave it out.
Generate Additional Hierarchy	To create additional hierarchies for the natural account segment for reporting or for other purposes, click the Generate Additional Hierarchy button. A worksheet is automatically created and populated with the data already entered for that segment. Change this data as required for the new hierarchy. You can create additional hierarchies during initial setup or after the initial setup is done.

16. On the Financial Sequences sheet, enable document or journal sequences to assign unique numbers to transactions to meet legal requirements.

Sequences

Transactions	*Restart	*Initial Value
Payables Invoices	Annually	1
Payments	Annually	1
Receivables Invoices	Annually	1
Receivables Credit Memos	Annually	1
Receivables Adjustment Activities	Monthly	1
Subledger Journals	Never	100
General Ledger Journals	Never	100

Document sequences are created for these transactions: Payables invoices, Payments, Receivables Invoices, Receivables Credit Memos, Receivables Adjustment Activities. Reporting and accounting journal sequences are created for Subledger journals and General Ledger journals.

For each transaction, you can provide values for these fields:

Field	Value
Restart	Set when to restart the numbering: Annually, Monthly, Never.
Initial Value	Specify the beginning number in the sequence.

17. On the Chart of Accounts, Calendar, and Ledger sheet, click **Step 1: Validate**.

The validation checks the worksheets for missing or inappropriate setups. Errors are marked as actionable items in a validation report sheet that's dynamically generated. You can review the anomalies and make the corrections as indicated. The Field column on the validation report notes the issue. Click the text link

to navigate to the appropriate field in the sheet that must be updated. When the validation is successful, a message appears with the option of previewing a sample of the reports that are automatically generated as part of the enterprise configuration.

18. Click **Step 2: Generate Chart of Accounts File**. The process generates a data file called ChartOfAccounts.xml that contains the chart of accounts and hierarchies data you entered. Save the file to a network or local drive.
19. Click **Step 3: Generate Ledger, LE, and BU File**. The process generates a data file called FinancialsCommonEntities.xml that contains the ledger, legal entities, and business unit data you entered. Save the file to a network or local drive.
20. Upload your chart of accounts.
    a. Click **Tasks**, then select **Search**.
    b. In the search field, enter **Upload Chart of Accounts**.
    c. From the results, click **Upload Chart of Accounts**.

       The Upload Enterprise Structures and Hierarchies page appears.
    d. In Data File, click **Browse**, then navigate to where you saved ChartOfAccounts.xml (generated in step 18).
    e. On the Upload Enterprise Structures and Hierarchies page, click **Submit**.
    f. Verify that the process completed without errors or warnings.
    g. Click **Done**.
21. Upload your ledger, legal entities, and business units.
    a. If necessary, click **Navigator** > **Setup and Maintenance**.
    b. Click **Tasks**, then select **Search**.
    c. In the search field, enter Upload Ledger, Legal Entities, and Business Units.
    d. From the results, click **Upload Ledger, Legal Entities, and Business Units**.

       The Upload Enterprise Structures and Hierarchies page appears.
    e. In Data File, click **Browse**, then navigate to where you saved FinancialsCommonEntities.xml (generated in step 19).
    f. On the Upload Enterprise Structures and Hierarchies page, click **Submit**.
    g. Verify that the process completed without errors or warnings.

Related Topics

- How Charts of Accounts, Ledgers, Legal Entities, and Business Units Are Created Using Spreadsheets

Associate Reference Data Objects to Your Business Unit

Use the Manage Business Unit Set Assignment task to associate Financials reference data objects to your business unit. By doing this, you ensure that accounts receivable can create accounting transactions for your business unit.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Business Unit Set Assignment** task:
   - Offering: Financials
   - Functional Area: Organization Structures

   Note that the Scope column says Select. This means a business unit hasn't been assigned.
3. Click **Select**. The Scope Select dialog box appears.
4. In **Business Unit**, select **Select and Add**.

> **Note:** Once you assign a business unit, don't change it. Later, you can change the business unit you assigned to various attributes. But once transactions are made, they're carried forward.

5. Click **Apply and Go to Task**. The Select and Add Business Unit dialog box appears.
6. Search for the business unit you created, then click **Search**. The business unit was created when you set up your enterprise structures.
7. From the search results, select your business unit, then click **Save and Close**. The Manage Set Assignments page appears.
8. For the following reference data objects, set the **Reference Data Set Code** to your business unit.
    - Customer Account Site
    - Customer Account Relationship
    - Payables Payment Terms
    - Receivables Payment Terms
    - Receivables Transaction Type
    - Receivables Transaction Source
    - Receivables Memo Lines
    - Receivables Remit to Address
    - Receivables Lockbox
    - Receivables Application Exception Rules
    - Receivables Accounting Rules
    - Receivables Auto Cash Rules
    - Receivables Auto Match Rules
    - Receivables Revenue Contingencies
    - Collections Setup
    - Receivables Collectors
    - Receivables Aging Buckets
    - Higher Education Due Date Calendar
    - Higher Education Adjustment Calendar
    - Grades

    If you decide to associate an object to a different business unit, you can change the Reference Data Set Code at any time.
9. Click **Save and Close**.

Manage Access to Your Business Unit

Oracle Fusion applications use business units to secure data. To allow a user to manipulate data within a business unit, you need to assign certain roles. The roles you assign allow a user to perform specific functions within the business unit.

For example, users who hold a Payables role can perform payables invoicing on the business unit's data.

Note: Currently, Student Management supports only one business unit; there's no workaround to support multiple business units. While you can certainly create additional business units, Financials and Student Management must use the same business unit. If your institution has multiple campuses, you can set up multiple legal entities, then link it to your business unit. You can give other users the rights to manipulate data within your business unit at any time.

To manage access to your business unit:

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Data Access for Users** task:
    - Offering: Financials
    - Functional Area: Users and Security
3. Select **Users without Data Access**.
4. In Security Context, select **Business Unit**.
5. In User Name, enter **FINUser**, then click **Search**.
   In the search results take note of these roles assigned to FINUser. These roles haven't been granted access to your business unit.
    - Financial Application Administrator
    - Accounts Receivable Manager
    - Accounts Receivable Specialist
    - Accounts Payable Manager
    - Accounts Payable Specialist
6. To give FINUser access to the business unit, click **Create**. The Create Data Access for Users dialog box appears.
7. Fill out these fields:

Field	Value
User Name	FINUser
Role	Financial Application Administrator
Security Context	Business unit
Security Context Value	Select your business unit.

8. While you're still on the Create Data Access for Users dialog box, click **Add Row**, then repeat steps 8 to 9 using these roles in the **Role** field:
    - Accounts Receivable Manager
    - Accounts Receivable Specialist
    - Accounts Payable Manager
    - Accounts Payable Specialist
9. Click **Add Row**.

10. Fill out these fields:

Field	Value
User Name	FINUser
Role	General Accounting Manager
Security Context	Data access set
Security Context Value	Select the ledger name and legal entity that you used in creating your enterprise structure. This value is a data access set that's a combination of the ledger name and legal entity that was created when you uploaded your enterprise structure. A primary ledger is created for each unique country you enter on the Companies and Legal Entities sheet. A country code is appended to the name that you specify. For example, one legal entity is based in the United States and another in Canada. If you enter the ledger name of Vision City, two primary ledgers are automatically created: Vision City US and Vision City CA.

11. Click **Save and Close**.
12. Click **Done**.

Related Topics

- How do I update existing setup data?

Assign Financials Business Unit Functions

When you associate Financials business functions to your business unit, you ensure that your transactions are automatically associated with the default legal entity and primary ledger in your enterprise structure.

To do this task, you must have already set up your enterprise structure. The Financials business functions are all required and should not be removed. But you can add more business functions at a later date.

> **Note:** Once you set up the primary ledger, you've set up a chart of accounts. It's recommended that you don't change your primary ledger because each ledger may have different numbers of segments. Changing ledgers may compromise your data.

To assign Financials business functions to your business unit:

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Assign Business Unit Business Function** task:
    - Offering: Financials
    - Functional Area: Organization Structures

    Note that in the Scope column it says Select. This means a business unit hasn't been assigned.

3. Click **Select**.
4. From the Select Scope dialog box, in Business Unit, select your business unit.
5. Click **Apply and Go to Task**.

   The Assign Business Unit Functions page appears.
6. In Business Unit Functions, select the **Enabled** check box for these functions:
   - Payables Invoicing
   - Payables Payment
   - Billing and Revenue Management
   - Customer Payments
   - Collections Management

   These business functions generate financial transactions and require a primary ledger and a default legal entity.
7. In Financial Reporting, make sure these fields have the correct values:

Field	Value
Primary Ledger	Use the value you provided when you created your enterprise structure.
Default Legal Entity	Use the value you provided when you created your enterprise structure.

8. Click **Save and Close**.

Manage Financial Structures

Open an Accounting Period

To create transactions such as charges and refunds as well as post receipts, you must open an accounting period.

Note: Once you open an accounting period, you can't reverse the process.

When you're ready to transact in a particular period, open the corresponding accounting period of the ledger. To create charges and post receipts to the relevant period, you must open the receivables accounting period. To post refunds, you must also open the payables accounting period.

Tip:

- It's important to know your CoA - Reporting Period Frequency and Fiscal Start Date before you open an accounting period.
- If you aren't able to post transactions in Student Management, it may be because your accounting period isn't open.
- You must convert legacy transactions (invoices, error data, and so on) in your legacy system. Run your legacy system and Student Management in parallel until all transactions in the legacy system are completed. Going forward, use Student Management for new transactions.

Open the First Accounting Period

To open the first accounting period:

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Open First Period** task:
    - Offering: Financials
    - Functional Area: General Ledger

    Note that the Scope column says Select. This means a business unit hasn't been assigned.
3. Click **Select**.
4. In **Primary Ledger**, select your ledger.

    Your ledger name is a combination of the name you provided when you uploaded your enterprise structure and the country code you used.
5. Click **Apply and Go to Task**.
6. In the Basic Options area, select these values for these fields:

Field	Value
Data Access Set	Select your ledger.
Ledger or Ledger Set	Select your ledger.
Accounting Period	Select the period you want to transact in.

You should open an accounting period one at a time, when you're ready to transact in that period. Depending on how you set up your enterprise structure, you may need to open multiple periods to get to the current period.

Open Subsequent Accounting Periods

If you want to transact in periods later than the first period you opened, you must open subsequent periods.

1. Click **Navigator** > **General Accounting: Period Close**.
2. Click **General Ledger**.
3. From the list of accounting periods, select the next accounting period that comes after the first one you opened, then click **Open Period**.

   A process is submitted to open the accounting period you selected, then creates the succeeding month's accounting period. Note the Status icon for each row. This indicates whether the row is an open or closed period.
4. To open succeeding accounting periods, click **Refresh** to refresh the list, then select the next unopened accounting period.

   Make sure the accounting period for the next month appears on the list so that you can open it.
5. Repeat steps 3-4 making sure you select the succeeding accounting period that's still closed until you open the accounting period you want to transact in.

Open the Receivables Accounting Period

To open the receivables accounting period:

> **Note:** In your implementation, make sure you begin with the accounting period that applies to your institution. This period may be the beginning of your fiscal year or calendar year.

1. Click **Receivables**.

   The Open First Period dialog box appears.
2. In **First Period**, select the period you want to transact in, then click **OK**.
3. If a Warning dialog box appears, click **Yes**.
4. From the Confirmation dialog box, click **OK**.

   You have submitted a process to open the accounting period for the subledger.
5. On the Edit Accounting Period Statuses page, click **Refresh**.

   You may have to do this several times until the accounting period you opened appears on the list. Once the receivables accounting period is open, the Receivables icon on the Period Close page shows an Open status.
6. Click **Done**.

Open the Payables Accounting Period

Initially, the Payables icon shows a Never Opened status. To open the payables accounting period:

1. Click **Payables**.

   The Open First Period dialog box appears.
2. In **First Period**, select the transaction period you want to post transactions in, then click **OK**.
3. If a Warning dialog box appears, click **Yes**.
4. From the Confirmation dialog box, click **OK**.

   The process to open the accounting period for the subledger is submitted.
5. On the Edit Accounting Period Statuses page, click **Refresh**.

You may have to do this several times until the accounting period you opened appears on the list. Once the payables accounting period is open, the Payables icon on the Period Close page shows an Open status.

6. Click **Done**.

Related Topics

- Overview of Opening First Period

Manage Banks and Accounts

Use the Manage Banks task to define and keep track of all bank accounts in one place. You can also grant access to multiple business units, functions, and users to your bank account.

Because of this, you don't have to set up duplicate bank accounts in different business units when these units share the same bank account.

Creating a bank is the first step in setting up a bank account. Once you create a bank, you must create a branch (or branches) that you associate with the bank. After creating a bank and branch, you can create an account, then select the branch to associate your account with.

You can create additional banks, branches, and accounts at any time. If you add banks and branches, you must update the associated values. And if there are existing transactions associated with a bank or account, you can't delete either one.

Note: The Oracle Fusion Payables or Receivables accounts are identified by business unit.

Create a Bank

To process electronic payments, you must configure your bank details.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Banks** task:
    - Offering: Financials
    - Functional Area: Cash Management and Banking
3. Click **Create**.
4. Fill out these fields with these values:

Field	Value
Country	Enter the country where your bank is located. Once assigned, you can't update this field.
Name	Enter the bank name.
Bank Code	Enter the bank's code.

Field	Value

5. Click **Save and Close**.
6. Click **Done**.

Create a Branch and Bank Account

Once you create an account, it isn't recommended to change it.

1. While still logged in as FINUSer, from the list of tasks click **Manage Bank Branches.**
2. Click **Create**.
3. Fill out these fields:
    - Bank
    - Branch Name
    - Routing Number
    - Branch Number Type
    - Bank Branch Type
    - EDI ID Number
    - EFT Number
    - RFC Identifier
4. Click **Save and Close**.
5. Set up your bank account.
    a. Select the row of the branch you just created.
    b. Click **Create Account**.
    c. Fill out these fields:
        - Account Name
        - Account Number
        - Currency
        - Legal Entity
        - Account Use: Select **Payables and Receivables**.

    Bank and Bank Branch are automatically populated with values when you selected the bank account you created.
    d. In the General tab, GL Accounts section, fill out:
        - Accounts
        - Cash Clearing
        - Reconciliation Differences
    e. In Additional Information, fill out or select values for:
        - EFT Number
        - Multicurrency account
    f. In the Business Unit Access tab, click **Create**.

g. In **Business Unit**, select your business unit.
h. Click **OK**.
i. Click **Save and Close**.
j. Click **Done**.

Verify Receivables System Options

In this task, you're only validating the information on the Manage Receivables System Options page. Some of the values presented here are examples, and may be different from your implementation.

Essentially, the information you should see on the page should be the same information as in your enterprise structure. Refer to your enterprise structure information while you're verifying the information on the page.

Note:

- You can't change the values in Ledger and Ledger Currency. These fields are associated with the Financials business functions you assigned to your business unit.
- Some of the field values are seeded rule sets. If you can't find the value, you can create one that's applicable to your institution. Otherwise, contact Oracle Support and request for the seeded rule sets.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Receivables System Options** task:
    - Offering: Financials
    - Functional Area: Receivables
3. Make sure the values in these fields reflect how you set up your enterprise structure:
    - Business Unit
    - Ledger
    - Ledger Currency
4. In Billing and Revenue, verify the following fields:
    - Split Amount
    - Days in Days Sales Outstanding Calculation
    - Application Rule Set
    - Discount Basis

    You can change the values for these fields.
5. In Accounting, look at these fields. When you click the magnifying glass icon, the segments and values you assigned to these segments appear.
    - Tax Account
    - Cross-Currency Rounding Account
    - Realized Gains Account
    - Realized Losses Account

- Automatic journal import: Make sure this is selected.
- Days per Posting Cycle

6. In Transactions, verify the following fields:
   - Tax Invoice Printing Options
   - Document Number Generation Level
7. In **Customers**, enter or select this value for Grouping Rule: **AR_AI_Grouping Rule**.
8. In **AutoInvoice**, enter or select these values:

Field	Value
Purge interface tables	Make sure this is selected.
Maximum Memory in Bytes	Enter **100000**.
In Log File Message Level	Enter **7**.

9. Click **Save**.
10. Click **Cash Processing**.
11. In the Cash Processing tab, enter or select these values for these fields:

Field	Value
AutoCash Rule Set	AR_Autocash_rule_ED
Match Receipts By 1	Transaction Number
AutoMatch Rule Set	AR_Auto_Match_Rule_ED
Use AutoApply	Select.
Days to AutoApply a Receipt	10
From Write-Off Limit per Receipt	0
To Write-Off Limit per Receipt	1000
Minimum Refund Amount	10
Chargeback Due Date	Open invoice due date

Field	Value

12. In Accounting, make sure the values in these fields reflect how you set up your enterprise structure:
    - Realized Gains Account
    - Realized Losses Account
    - Cross-Currency Rate Type
    - Cross-Currency Rounding Account
13. In Automatic Receipts, verify the following values:
    - Receipt Confirmation Threshold Amount: 10
    - Invoices per Commit: 500
    - Receipts per Commit: 500
14. If you made any changes, click **Save and Close**, then click **Done**.
15. If you didn't make changes, click **Cancel**.

Verify Auto-Accounting Rules

The Manage AutoAccounting Rules page displays the default accounting information for receivables transaction processing. These values were derived from your enterprise structure. Confirm that the values on this page match what you set up for your enterprise structure.

Make sure you set up your enterprise structures properly to support the financial business processes in Oracle Fusion Student Management Cloud Service. For example, to ensure you can successfully create charges, complete the setup for auto-accounting. For more information, see:

- AutoInvoice Setup for Oracle Fusion Receivables Cloud (1345332.1) on My Oracle Support at https://support.oracle.com.
- Setting Up AutoAccounting Rules In Oracle Fusion Receivables (1347760.1) on My Oracle Support at https://support.oracle.com.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage AutoAccounting Rules** task:
    - Offering: Financials
    - Functional Area: Customer Billing
3. Make sure the account types are associated to your business unit.
    a. In **Search (Business Unit)**, select your business unit.
    b. Click **Search**.
    The results should show the various account types you associated to your business unit. This was done when you created your enterprise structure.
    c. Click each account type to verify the values for each segment.
    d. If you want to modify the values assigned to the segment, click the corresponding row of the segment you want to modify, then enter the new value.
    e. If you made changes, click **Save and Close**.

f. If you didn't make changes, click **Cancel**.

Manage Receipt Classes and Methods

To process payments and issue receipts, you must define the payment and receipt methods as well as provide accounting information.

When you set up receipt classes and methods, you associate a type of credit to the account. Examples of these are:

- Cash payments
- Credit card payments
- Bank account payments

You can use the predefined receipt classes and methods, or create new ones to suit your requirements.

Note: This task shows *examples* of creating receipt classes and methods for credit cards, bank account payments, and cash payments.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Receipt Classes and Methods** task:
    - Offering: Financials
    - Functional Area: Customer Payments
3. To create a receipt class and method for credit card payments:
    a. Click **Create**.
    b. Enter or select the following values for these fields:

Field	Value
Name	Credit Card
Creation Method	Automatic
Remittance Method	Standard
Clearance Method	By Matching

    c. In Receipt Methods, click **Add Row**.
    d. Enter or select these values for these fields:

Field	Value
Name	Credit Card

Field	Value
Printed Name Note that this is the name that appears on documents when you print them.	Credit Card
Effective Start Date	01/01/2000

e. In Details, Automatic Processing, enter or select these values for these fields:

Field	Value
Receipts inherit transaction numbers	Select the check box.
Number of Receipts Rule	One per Invoice
Receipt Maturity Date Rule	Earliest
Lead Days	0
Customer Payment Method	Credit Card

f. In Funds Transfer Error Handling, click **Add Row**.
g. Enter or select these values for these fields:

Field	Value
Error Code	$$$$
Description	Insufficient Funds
Activity Class	Receipt
Action	Reverse Receipt
Notes	Authorization or payment failed.

h. Click Remittance Bank Accounts, then click **Add Row**.

The Create Remittance Bank Account page appears. On this page, you associate the bank account you created.

Remittance accounts are used when you use electronic fund transfer (EFT) as a mode of payment.

i. Fill out these fields using information about your bank account:

Field	Value
Business Unit	Select your business unit.
Bank	Select your bank.
Branch	Select your branch.
Account	Select your bank account.
Minimum Receipt Amount	0.01
Effective Start Date	1/1/2000

j. In GL Accounts, enter discount values for these fields as appropriate for your institution:

- Unearned Discounts
- Earned Discounts

k. Click **Save and Close**.

l. Click **Save and Close**.

Some fields may already be populated with values. These values were derived when you set up your enterprise structure.

4. To create a receipt class and method for bank account payments:

a. On the Manage Receipt Classes and Methods page, click **Create**.

b. Enter or select these values for these fields:

Field	Value
Name	IBY_Receipt Class
Creation Method	Automatic
Remittance Method	Standard

Field	Value
Clearance Method	By Matching

c. In Receipt Methods, click **Add Row**.
d. Enter or select these values for these fields:

Field	Value
Name	IBY_Bank Account Transfer
Printed Name Note that this is the name that appears on documents when you print them.	IBY_Bank Account Transfer
Effective Start Date	01/01/2000

e. In Details, Automatic Processing, enter or select these values for these fields:

Field	Value
Receipts inherit transaction numbers	Select the check box.
Number of Receipts Rule	One per Invoice
Receipt Maturity Date Rule	Earliest
Lead Days	0
Customer Payment Method	Bank Account Transfer

f. In Funds Transfer Error Handling, click **Add Row**.
g. Enter or select these values for these fields:

Field	Value
Error Code	$$$$

Field	Value
Description	Insufficient Funds
Activity Class	Receipt
Action	Reverse Receipt
Notes	Authorization or payment failed.

h. Click Remittance Bank Accounts, then click **Add Row**.

The Create Remittance Bank Account page appears. On this page, you associate the bank account you created.

Remittance accounts are used when you use electronic fund transfer (EFT) as a mode of payment.

i. Fill out these fields using information about your bank account:

Field	Value
Business Unit	Select your business unit.
Bank	Select your bank.
Branch	Select your branch.
Account	Select your bank account.
Minimum Receipt Amount	0.01
Effective Start Date	1/1/2000

j. In GL Accounts, enter or select values for these fields as appropriate for your institution:

- Unearned Discounts
- Earned Discounts

Some fields may already be populated with values. These values were derived when you set up your enterprise structure.

k. Click **Save and Close**.

l. Click **Save and Close**.

5. To create a receipt class and method for cash (manual) payments:

    a. On the Manage Receipt Classes and Methods page, click **Create**.
    b. Enter or select these values for these fields:

Field	Value
Name	Manual
Creation Method	Manual
Remittance Method	Standard
Clearance Method	By Matching

    c. In Receipt Methods, click **Add Row**.
    d. Enter or select these values for these fields:

Field	Value
Name	Cash
Printed Name Note that this is the name that appears on documents when you print them.	Cash
Effective Start Date	01/01/2000
Debit Memos Inherit Receipt Numbers	Select this check box.

    e. Click Remittance Bank Accounts, then click **Add Row**.

    The Create Remittance Bank Account page appears. On this page, you associate the bank account you created.

    Remittance accounts are used when you use electronic fund transfer (EFT) as a mode of payment.

f. Fill out these fields using information about your bank account:

Field	Value
Business Unit	Select your business unit.
Bank	Select your bank.
Branch	Select your branch.
Account	Select your bank account.
Minimum Receipt Amount	0.01
Effective Start Date	1/1/2000

g. In GL Accounts, enter or select values for these fields as appropriate for your institution:

- Unearned Discounts
- Earned Discounts

Some fields may already be populated with values. These values were derived when you set up your enterprise structure.

h. Click **Save and Close**.
i. Click **Save and Close**.

Manage Payment Terms

When you set up payment terms, you indicate when you expect payment to be made as well as identify conditions like what incentives students receive if they pay their fees early.

The payment terms you set up on the Manage Receivables Payment Terms page are used in Student Management financials system options.

You can use the seeded payment terms, or create new ones to suit your requirements.

This task shows how to create a payment term for payment that's due within 30 days of the transaction date.

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Receivables Payment Terms** task:
    - Offering: Financials
    - Functional Area: Customer Billing
3. Click **Create**.

4. Fill out these fields with these values:

Field	Value
Payment Term Set	Common Set Once you assign a reference data set, you can't change this value.
Name	30 Net
Description	Payment of the transaction balance is due within 30 days of the transaction date.
Base Amount	100
Discount Basis	Invoice Amount
Discount Basis Date	Receipt Application Date
From Date	01/01/2000
Installment Option	Include tax and freight in first installment

5. In Payment Schedule, click **Add Row**.
6. Fill out:

Field	Value
Sequence	1 Once you set the sequence, you can't change this value.
Relative Amount	100
Days	30

7. Click **Save and Close**.
8. Repeat steps 4-8 to create other payment terms.

Related Topics

- Manage Academic Business Unit
- Guidelines for Defining Payment Terms
- How do I update existing setup data?

Manage Transaction Types

In Student Management, transaction types are used to associate a transaction to a fee. For example, if you want to associate enrollment transactions to a fee, then create a transaction type called Enrollment Fee.

You can use these seeded transaction types, or as a reference to create your own:.

- HES Class Enrollment
- HES Fee Adjustment
- HES General Fee
- HES Miscellaneous

Note: Credit memos are downward adjustments to a charge. An example of a credit memo is financial aid credit. Credit memos have a negative sign.

To create a transaction type:

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Transaction Types** task:
    - Offering: Financials
    - Functional Area: Customer Billing
3. Click **Create**.
4. Fill out these fields with values that are appropriate for your institution.
    - Transaction Type Set. This refers to a reference data set.
    - Name
    - Description
    - Transaction Class
    - Transaction Status
    - From Date
    - Creation Sign
    - Print Option
5. Click **Save and Close.**
6. Repeat steps 3-4 to create other transaction types.

Related Topics

- How do I update existing setup data?

Manage Transaction Sources

All fees in Student Management are posted to Receivables as charges. This happens when an invoice is created. Student Management links its fee types to transaction sources, then uses transaction sources to post charges.

These transaction sources are predefined. You can create more to suit your requirements.

- ORA_HED Student Curriculum Fees
- ORA_HED Student Miscellaneous Fees
- ORA_HED Student Academic Period Fees

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Transaction Sources** task:
    - Offering: Financials
    - Functional Area: Customer Billing
3. Click **Create**.
4. In General Information, fill out these fields with the appropriate values for your institution:
    - Transaction Source Set. This refers to a reference data set.
    - Name
    - Description
    - Type
    - From Date
5. In Source Defaults, fill out these fields with the appropriate values for your institution:
    - Automatic Transaction Number
    - Last Transaction Number
6. Click **Save and Close.**
7. Repeat steps 4-6 to create other transaction sources.

Related Topics

- How do I update existing setup data?

Manage Memo Lines

Memo lines are used to create debit memos, on account credits, debit memo reversals, chargebacks, and so on. If there are additional charges to a student, like penalties, memo lines are also used.

You can use these seeded memo lines, or as a reference to create your own:

- HES Insurance Jan-Aug
- HES Early Registration Discount
- HES Business Management

- HES Adult Education
- HES Lifelong Learning

To create a memo line:

1. Sign in as FINUser.
2. In the Setup and Maintenance work area, go to the **Manage Standard Memo Lines** task:
    - Offering: Financials
    - Functional Area: Customer Billing
3. Click **Create**.
4. Fill out these fields with values that are appropriate for your institution.
    - Memo Line Set. This refers to a reference data set.
    - Name
    - Description
    - Type
    - From Date
    - To Date
5. Click **Save and Close.**
6. Repeat steps 3-4 to create other memo lines.

Related Topics

- How do I update existing setup data?

Test Your Implementation

To test whether your implementation of Financials is correct, create a transaction and make sure the accounting date is correct.

1. Sign in as FINUser.
2. Click **Navigator** > **Receivables** > **Billing**.
3. Click **Actions** > **Create Transaction**.
    a. Check the accounting date. The date should be set by default to the accounting date you opened or have active.
    b. If a dialog box appears and prompts you to save the record, click **No**.

Once you verify that your Financials setup is correct, you can set up Student Management. See "Oracle Student Management Cloud Implementation" in the Getting Started with Your Student Management Implementation guide.

3 Help Configuration

Set Up Help

You don't have to set anything up for help to work. But you can do optional setup, for example to give people access to add help content. First enable help features, then perform tasks in the Application Extensions functional area.

Enable Features

In the Offerings work area, review these features at the offering level.

- Local Installation of Help: Make sure to leave this enabled.
- Access to Internet-Based Help Features: This feature isn't used, so it doesn't matter if you enable it or not.
- Help Content Management: Enable this feature if you want some people to be able to add company-specific help to help windows or the Getting Started work area.
- Security for Added Help: Enable this feature if you want certain help to be available only to a restricted set of user roles.

> **CAUTION:** Enable this feature only if you have this requirement, because the feature can affect performance.

Related Topics

- Hide or Show Help Icons
- Give People Access to Create and Edit Help
- Configure Offerings
- How You Manage Different Types of Help
- Create Groups to Limit Access to Added Help

Hide or Show Help Icons

By default, help icons that open help windows are visible. You can control whether users see the icons every time they sign in, on any page with help icons. You can disable or enable help icons by default, for everyone.

1. In the Setup and Maintenance work area, go to the **Set Help Options** task in the Application Extensions functional area.
2. On the Set Help Options page, deselect or select the **Show help icons by default** check box. You just need to do this for one offering, and the setting applies to everyone.
3. Sign out and sign back in to see your change take effect. The same goes for any user next time they sign in.

To show or hide the icons in a specific user session, people can still click their user image or name in the global header and select **Show Help Icons** or **Hide Help Icons**.

Note: What we are talking about here affects only help windows, not help text that appears when you hover over or click certain UI elements on the page. To edit or delete UI element help text, use Page Composer or other tools.

Related Topics

- How do I update existing setup data?
- Manage Help for Fields and Other UI Elements

Give People Access to Create and Edit Help

If you enabled the Help Content Management feature, check who has the Manage Help Content (ATK_CUSTOMIZE_HELP_TOPICS_PRIV) privilege. Here's what these users can do:

- Add help in any help window, and also edit and manage the help that anyone added.
- Edit existing pages in the Getting Started work area and also add new pages.

Your security administrator can assign custom job roles with this privilege to users. The **Assign Help Text Administration Duty** task is a reminder for you to follow up with your security administrator. Make sure that people who want to create and edit help have the access to do so.

Related Topics

- How You Manage Different Types of Help

Create Groups to Limit Access to Added Help

In this example, you want to add company policies as help in a help window. But only human resources (HR) specialists should be able to see those policies. You can use a help security group to limit access like this.

Let's look at the steps to create a help security group that includes only a custom job role for HR specialists. You can then secure your company policies with this help security group so that only people with that job role can see the help.

Before You Start

In the Offerings work area, make sure that these features are enabled at the offering level:

- Local Installation of Help
- Help Content Management
- Security for Added Help

Ask your security administrator for the name of the custom job role granted to HR specialists in your company.

Create the Help Security Group

1. In the Setup and Maintenance work area, go to the **Manage Help Security Groups** task in the Application Extensions functional area.

2. On the Manage Help Security Groups page, add a new row.
3. Enter these values, but leave the start and end dates blank.

Field	Value
Help Security Group	HR
Display Name	HR Only
Description	Viewing by HR specialists only

4. Click **Save**.
5. With your new help security group selected, go to the Associated Roles section and add a new row.
6. Select the custom job role for HR specialists as the role name.
7. Click **Save and Close**.

Related Topics

- Set Up Help
- Configure Offerings
- How do I update existing setup data?
- Add Your Content to a Help Window
- Create and Edit Added Help

4 Application Toolkit Configuration

Map Reports to Work Areas

Set Up the Reports and Analytics Panel Tab

The Reports and Analytics panel tab appears in many work areas, and shows analytics and reports related to the work areas. You map and unmap the objects for a specific work area from the business intelligence (BI) catalog.

Your mapping changes for a work area apply to all users who have access to it.

Map and Remove Objects from Your Work Area

1. Expand the Reports and Analytics panel tab.
2. Click the **Edit Settings** icon.

   You see all the analytics and reports that are currently mapped to your work area.
3. Click **Select and Add**.
4. Select the object in the catalog.
5. Click **OK**.
6. To remove any mapping, select the object and click **Remove**.
7. Click **Save**.

Map and Remove Objects from Any Work Area

1. In the Setup and Maintenance work area, go to the **Map Reports to Work Areas** task.
2. Select the application of the work area you want to map to.
3. Select the work area.
4. Click **Search** and see all the reports that are currently mapped to that work area.
5. Click **Select and Add**.
6. Select the object in the catalog.
7. Click **OK**.
8. To remove any mapping, select the object and click **Remove**.

   > **Tip:** Click **Synchronize** to remove all mappings to any objects that are no longer in the catalog. You synchronize all work areas, not just the one you're mapping.
9. Click **Save**.

Related Topics

- Why can't I see analytics and reports when I edit settings for the Reports and Analytics panel tab?
- Why can't I see analytics and reports when mapping to work areas for the Reports and Analytics panel tab?
- Set Up Reports for Scheduling
- How do I update existing setup data?

Set Up Reports for Scheduling

You can set up reports as scheduled processes so users can submit them from the Scheduled Processes and other work areas.

If you want users to also submit these scheduled processes from the Reports and Analytics work area and panel tab, then you need to configure properties for the corresponding reports.

Enable a Report for Scheduling

1. In the Reports and Analytics work area or panel tab, edit the report in the business intelligence catalog.
2. Click **Properties**.
3. In the General tab in the Properties dialog box, enter the field values as shown in this table and then click **OK**.

Field	Value
Enterprise Scheduler Job Package Name	Enter the path for the job definition, for example: `/oracle/apps/ess/<product family>/<product>/<business area>/Jobs`
Enterprise Scheduler Job Definition Name	Enter the job definition name (not display name), for example: `ABCDEFG`

Related Topics

- Set Up the Reports and Analytics Panel Tab
- Create Job Definitions to Run Reports as Scheduled Processes
- How You Access and Modify Report Components

FAQs for Map Reports to Work Areas

Why can't I see analytics and reports when mapping to work areas for the Reports and Analytics panel tab?

Either no analytics and reports are mapped to the work area you select on the Map Reports to Work Areas page, or you don't have access to the mapped objects.

Similarly, when you're selecting an object to map, you can only see objects you have access to. Your administrator can grant access to the objects or let someone with access map them.

- Assign you roles with access to the objects you want to map.
- Grant the Reports and Analytics Region Administration Duty to someone who already has access to the objects.

Why can't I see analytics and reports when I edit settings for the Reports and Analytics panel tab?

In the Edit Settings window, you might not see a currently mapped report because you don't have access to it.

Similarly, when you're selecting an object to map, you can only see objects you have access to. Your administrator can grant access to the objects or let someone with access map them.

- Assign you roles with access to the objects you want to map.
- Grant the Reports and Analytics Region Administration Duty to someone who already has access to the objects.

Watchlist Options

Disable or Enable Watchlist Categories and Items

To disable or enable predefined Watchlist categories and items for all users, use the following in the Setup and Maintenance work area.

- Functional Area: Application Extensions
- Task: Set Watchlist Options

Ultimately, what users see in their own Watchlist would be the categories and predefined items that you enable in the Set Watchlist Options page:

- Plus any saved searches that the user is using as Watchlist items
- Minus any categories or items that the user decides to hide using Watchlist preferences
- Minus any items with no results found, if the user decides to hide such items using Watchlist preferences

Any Category or Item

When you disable any category or item, you also disable the processes that calculate the Watchlist item counts. These processes include creating data caches, performing security checks, calling services across domains, running queries, and so on.

Predefined Watchlist Items

An item with the Predefined type represents the actual predefined Watchlist item that appears in the Watchlist. If you disable this type of Watchlist item, then:

- The item isn't available for users to display in their Watchlist.
- The item is removed from any Watchlist where it's currently displayed.

If you disable a Watchlist category, then the category isn't available for users to include in their Watchlist. All Watchlist items within the category are also disabled.

User-Created Saved Search Watchlist Items

A Watchlist item with the User-Created Saved Search type doesn't appear in the Watchlist. It controls the display of the **Manage Watchlist** button on pages with saved searches. If you disable this type of Watchlist item, then:

- The **Manage Watchlist** option isn't available on the corresponding page, so users can't use their own saved searches as Watchlist items.
- Any user-defined saved searches (from that page) already used as Watchlist items are removed from the users' Watchlist. The saved searches are still available for searching, but not for the Watchlist.

Watchlist Category

If you disable a Watchlist category, then:

- The category isn't available for users to include in their Watchlist.
- All Watchlist items within the category are also disabled.

Note: You can see the Watchlist icon in the global header only if your default home page layout is Panel or Banner.

Related Topics

- Refresh Intervals for Watchlist Items
- How can I change predefined Watchlist category and item names?
- Create Watchlist Items
- Set Watchlist Preferences
- Why can't I see icons in the global header?

Refresh Intervals for Watchlist Items

All Watchlist items have a predefined refresh interval, which controls how often the query that calculates the count for a Watchlist item can run. You can use the Set Watchlist Options page to edit the interval values.

In the Setup and Maintenance work area, use the following:

- Functional Area: Application Extensions
- Task: Set Watchlist Options

How the Refresh Works

The count for any Watchlist item gets refreshed as follows.

- When users open the Watchlist in the global header for the first time after signing in, the item is refreshed if five minutes have passed since its last refresh in an earlier session.
- When users open the Watchlist again, the item is refreshed only if the time since its last refresh is equal to or greater than the refresh interval.

User-Created Saved Search Watchlist Items

What you enter as the refresh interval for a Watchlist item of type User-Created Saved Search applies to all Watchlist items based on saved searches that users create for that item. For example, you set the refresh interval for the Corporate Card Transactions item to five minutes. Multiple users create saved searches for corporate card transactions and use those saved searches as Watchlist items in their own Watchlist. All of these Watchlist items would have a refresh interval of five minutes.

Related Topics

- Disable or Enable Watchlist Categories and Items
- How can I change predefined Watchlist category and item names?
- Create Watchlist Items

FAQs for Watchlist Options

How can I change predefined Watchlist category and item names?

Edit the standard lookup type that stores the predefined Watchlist category and item names.

1. In the Setup and Maintenance work area, go to the **Manage Standard Lookups** task in the Application Extensions or a product-specific functional area.
2. On the Manage Standard Lookups page, find the lookup type for the Watchlist category you want to edit. The lookup types for predefined categories end with WATCHLIST, for example EXM_EXPENSES_WATCHLIST.
3. Edit the lookup type meaning to change the category name.
4. To change item names, edit lookup code meanings.
5. Save your work.

Related Topics

- Overview of Lookups
- How do I update existing setup data?

5 Common Reference Objects

Why can't I edit setup data?

The configuration of your setup data may be protected. Application developers mark some configurations as protected, indicating that you can't edit them.

Some examples of configurations that may be protected are:

- Descriptive flexfields
- Extensible flexfield contexts
- Extensible flexfield pages
- Value sets
- Tree structures

Why does the Date field display a different value than my preferred date?

By default, the **Date** fields that don't have any associated time values show the date in the server time zone, UTC, irrespective of your preferred time zone.

Also, if you're using the calendar date picker to set today's date, the **Date** field gets populated with the current date in the server time zone, not your preferred time zone.

Set General Preferences for All Users

Use the Global Admin Preferences page to set general preferences, such as language, currency, and time zone for all users.

Use the **Set User General Preferences** task only if you want to update preferences for all users. Your users can still set preferences for themselves using the settings in the General Preferences section on the Preferences page. Once you set the general preferences for all users, if specific users don't change their preferences, the choices you have set for all users will apply to them. You can also set the default value formats for date, time, and number in regional preferences for all users.

To set general preferences, do these steps:

1. Click **Navigator** > **My Enterprise** > **Setup and Maintenance.**
2. In the Setup and Maintenance work area, go to the **Set User General Preferences** task in the Application Extensions functional area.
3. Set the required general preferences for your users.

> **Note:** You can also set the value formats for regional preferences, such as date, time, and number for your users using profile options.

4. If you only want to set the preferences for new users whose preferences haven't been set by them yet, select the **Reset preferences for new users only** check box. Selecting this option excludes all users whose preferences were set at some point in time.
5. Click **Save**.

Related Topics

- Set Value Formats for Regional Preferences for All Users
- Set Your General Preferences

Set Value Formats for Regional Preferences for All Users

Use profile options to set the default formats of values for regional preferences, such as date, time, number, currency, and time zone for all users.

You can set the values of specific profile options at the site layer using the Manage Administrator Profile Values page. The formats you set here are displayed for all users in the fields for regional settings on the General Preferences: Regional page. Your users can still set the value formats for themselves using the settings in the General Preferences: Regional page. Once you set the value formats for all users, if specific users don't change their value formats, the choices you have set for all users will apply to them.

To set value formats for profile options, do these steps:

1. Click **Navigator** > **My Enterprise** > **Setup and Maintenance.**
2. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task in the Application Extensions functional area.
3. Set the value formats for the profile options, as required:

   > **Note:** Check if the profile option already has a value set for the Site profile level. If so, just edit that value. Otherwise, create a new row and select a value for the Site profile level so that your settings apply to all users.

   - To set the date format:
     i. Search for the **Default Date Format (FND_DATE_FORMAT)** profile option.
     ii. In the FND_DATE_FORMAT: Profile Values section, click the **New** icon.
     iii. From the **Profile Level** list, select **Site**.
     iv. From the **Profile Value** list, select the required date format. For example, **31-1-1999**.
   - To set the time format:
     i. Search for the **Default Time Format (FND_TIME_FORMAT)** profile option.
     ii. In the FND_TIME_FORMAT: Profile Values section, click the **New** icon.
     iii. From the **Profile Level** list, select **Site**.
     iv. From the **Profile Value** list, select the required time format. For example, **1:30 PM**.
   - To set the number format:
     i. Search for the **Default Number Format (FND_NUMBER_FORMAT)** profile option.
     ii. In the FND_NUMBER_FORMAT: Profile Values section, click the **New** icon.

iii. From the **Profile Level** list, select **Site**.
iv. From the **Profile Value** list, select the required time format. For example, **-1,234.567**.

- To set the default currency:

i. Search for the **Default Currency (FND_CURRENCY)** profile option.
ii. In the FND_CURRENCY: Profile Values section, click the **New** icon.
iii. From the **Profile Level** list, select **Site**.
iv. From the **Profile Value** list, select the required currency. For example, **US Dollar**.

- To set the default time zone:

i. Search for the **Default User Time Zone (FND_TIMEZONE)** profile option.
ii. In the FND_TIMEZONE: Profile Values section, click the **New** icon.
iii. From the **Profile Level** list, select **Site**.
iv. From the **Profile Value** list, select the required time zone. For example, **US Pacific Time**.

4. Click **Save and Close**.

Related Topics

- Set General Preferences for All Users
- How do I update existing setup data?

Set a Banner Message in the Global Header

Let's say you want to communicate some important information to your users. You can set a banner message to display such information in the global header. But here are a few things to keep in mind.

- The banner message doesn't support translation. It will be only in English.
- Oracle may override your banner message if required.

To set a banner message, do these tasks:

1. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task in the Application Extensions functional area.
2. Search for the **Banner Message** (**FND_BANNER_MESSAGE**) profile option.
3. In the FND_BANNER_MESSAGE: Profile Values section, click the **New** icon.
4. From the **Profile Level** list, select **Site**.
5. In the **Profile Value** field, enter the message that you want to show in the global header.

> **Note:** The length of your message must not exceed 1000 characters. If your message has more than 77 characters, only the first 77 characters are displayed on the global header, and the complete message appears when you hover over the banner.

6. Click **Save and Close**.
7. Sign out and sign back in to see the banner message.

Related Topics

- Set Profile Option Values
- How do I update existing setup data?

How can I determine which languages appear in the Translation Editor?

Use the Translation Editor Languages profile option to specify the languages as the profile values, so that they're available as options for the user on the Translation Editor dialog box.

1. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task.
2. Search for the Translation Editor Languages profile option.
3. In the Profile Values section, specify the required languages as its profile values, separated by comma. You can either list the complete names of the languages or just the language codes specified on the Manage Languages page, for example, F for French, KO for Korean.

   > **Note:** You can specify only those languages that are available in the supported language pack. If you don't specify any value, all available language packs are supported.

4. Click **Save and Close**. The language entries will take effect for the user in the next sign in.

Related Topics

- Enter or Edit Translated Text

How do I define whether the user image, name, or initials display in the global header?

Set the User Image Display Enabled (FND_USER_PHOTO_ENABLED) profile option.

If you select:

- Yes, then the user image is displayed in the global header only if the user uploaded a photo. Otherwise, the user's initials are displayed. By default, this profile option is set to Yes.
- No, then only the user name is displayed in the global header.

Related Topics

- Change Your Photo

Set CSV as the Default Option for Exporting Table Data

You can specify Comma Separated Values (CSV) as the default file format for exporting most table data to excel. To specify this setting, use the **File Format for Export to Excel** profile option.

> **Note:** For tables that contain rows with detail facets, the table data doesn't get exported to the CSV format.

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task in the Application Extensions functional area.
2. Search for the **File Format for Export to Excel (ORACLE.ADF.VIEW.EXPORT_DEFAULT_TYPE)** profile option.
3. In the ORACLE.ADF.VIEW.EXPORT_DEFAULT_TYPE: Profile Values section, click the **New** icon.
4. From the **Profile Level** list, select **Site**.
5. From the **Profile Value** field, select **Export to CSV**.
6. Click **Save and Close**.

Related Topics

- Set Profile Option Values
- How do I update existing setup data?
- What's the difference between Export to Excel and desktop integration for Excel?

Application Taxonomy

Overview of Application Taxonomy

Oracle application components and functions are organized in a hierarchy, ranging from product lines to logical business areas. The hierarchy represents a breakdown of products into units based on how applications are installed and supported.

In the Application Extensions functional area within your offering, search for the Manage Taxonomy Hierarchy task and view the hierarchy on the Manage Taxonomy Hierarchy page.

Hierarchy

- The application taxonomy hierarchy contains various levels and types of nodes, or modules.

Usage

- Use application taxonomy to understand relationships among applications and between an application and its files. This information is helpful in managing various phases of the product life cycle.

Modules in Application Taxonomy

The application modules are organized in a hierarchy, the highest level being the product line, followed by the product family, application, and logical business area.

There can be multiple levels of logical business areas, with one or more nested within a parent logical business area. A module is a node at any of these levels. Each level is briefly described here.

- Product Line: A collection of products associated with a single brand name, for example, Oracle Fusion.
- Product Family: A collection of products associated with a functional area that may or may not be licensed together as a single unit, for example Oracle Fusion Financials.

- Application: A single product within a product family, containing closely related features for a specific business solution, for example General Ledger.
- Logical Business Area: A collection of business object definitions organized into a logical grouping. It contains the model objects, services, and UI components for those business objects. Logical business areas have their own hierarchy levels and in some cases can be up to two or three levels deep.

Related Topics

- Guidelines for Managing Modules in Application Taxonomy

Guidelines for Managing Modules in Application Taxonomy

In the application taxonomy hierarchy, when you create a module, it becomes a child of the currently selected node. Once created, you can't delete the module or move it elsewhere in the hierarchy.

From the Manage Taxonomy Hierarchy page, navigate to the Create Child Module or Edit Module page to manage the modules. As you create or edit modules, consider the following points regarding specific fields.

Identifiers

Module ID is the unique primary key for nodes in the taxonomy table. When you create a module, a unique read-only ID is automatically generated. The module contains two other identifiers: Module key and alternative ID. The module key is a string identifier, for example AP for the Oracle Fusion Payables application. The alternative ID is a numeric identifier, for example 1 for the Oracle Fusion product line. These additional identifiers are provided for the product line, product family, and application modules. However, you can optionally add them for logical business areas and new modules.

Note: Don't change the module key or alternative ID for predefined modules.

The product code is relevant only to application and logical business area modules. You can leave the field blank for other module types. The product code for applications is the short name that can be displayed in lists of application values. For example, FND for Oracle Fusion Middleware Extensions for Oracle Application.

Names

Module name is the logical name for the module. The name must be unique among nodes within the hierarchy level with the same parent, but Oracle recommends keeping it unique in the entire hierarchy. The user name and description can appear to users in other parts of Oracle Applications Cloud.

Usage Types

Though you can update the usage type to reflect the current state of the module, just doing so doesn't affect the actual state. For example, setting a module as installed doesn't mean the module is actually installed if the installation itself didn't take place. Installation refers to operations related to laying down all the components required to create an Oracle Applications Cloud environment. Deployment is the process that starts the managed servers and clusters and facilitates the actual use of product offerings. A licensed module is available for installation and deployment, and a deployed module is considered actively used when actually used by users.

Seed Data

If seed data is allowed, then data residing in flexfields and lookups can be extracted for the module using seed data loaders. By default, extract is allowed for all predefined modules of type application and logical business area.

Associations

You can associate a logical domain to modules of the type Product Family, as well as one or more enterprise applications to modules of type Application. This association represents the relationship between the taxonomy modules and the corresponding domain and enterprise applications stored in the Oracle Applications Cloud Functional Core (ASK) tables.

Related Topics

- Modules in Application Taxonomy

Reference Data Sharing

Reference Data Sharing

Reference data sharing facilitates sharing of configuration data such as jobs and payment terms, across organizational divisions or business units.

You define reference data sets and determine how common data is shared or partitioned across business entities to avoid duplication and reduce maintenance effort. Depending on the requirement (specific or common), each business unit can maintain its data at a central location, using a set of values either specific to it or shared by other business units.

A common reference data set is available as the default set, which can be assigned to several business units sharing the same reference data. For commonly used data such as currencies, you can use the common reference data set and assign it to multiple business units in various countries that use the same currency. In cases where the default set can't be assigned to an entity, you can create specific sets. The data set visible on the transactional page depends on the sharing method used to share reference data.

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of different business units setting up and using the same grades, XYZ Corporation decides to create a set called Grades, which contains the grades. All business units in the organization have the Grades set so that the grades can be shared and used.

> **Note:** For specific information about configuring reference data sharing for a particular object or product, refer to the relevant product documentation.

Related Topics

- Reference Data Sets
- Reference Data Sets and Sharing Methods
- Assignment of Reference Data Sets to Reference Objects

Reference Data Sets

Reference data sets are logical groups of reference data that various transactional entities can use depending on the business context. You can get started using either the common reference data set or the enterprise set depending on your implementation requirement.

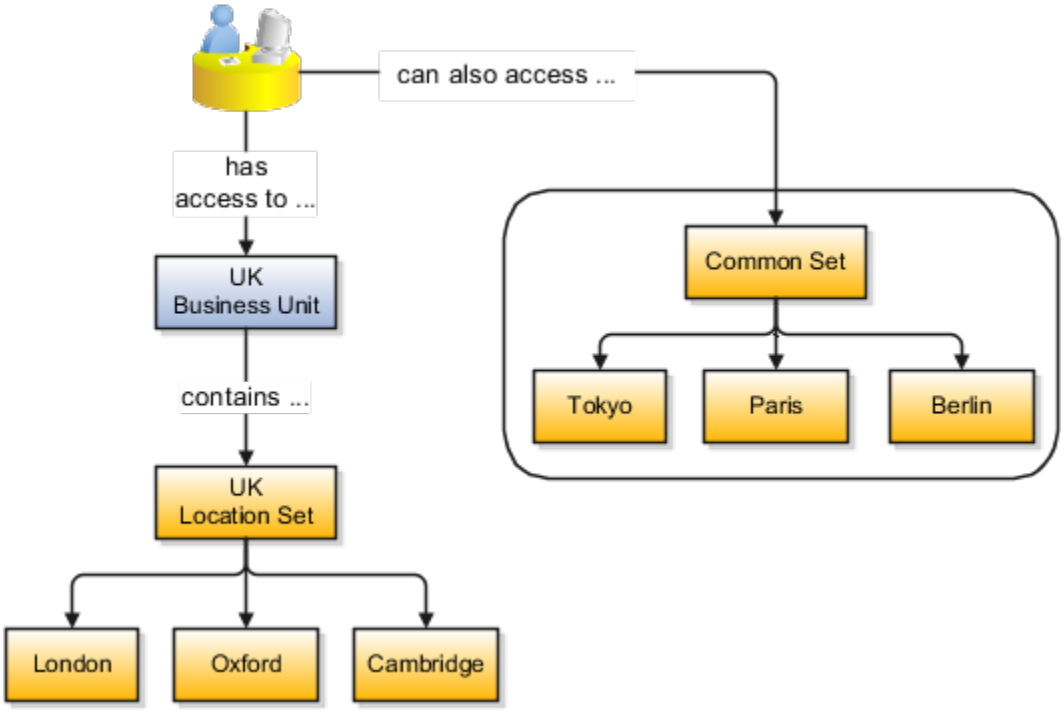
You can also create and maintain additional reference data sets, while continuing to use the common reference data set. Consider the following scenario. Your enterprise can decide that only some aspects of corporate policy should affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This enables your enterprise to balance autonomy and control for each business unit.

For example, your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level. Then, you can let managers define their own sales methods, but define payment terms centrally. As a result, each business unit has its own reference data set for sales methods and one central reference data set for payment terms assigned to all business units.

Partitioning

Partitioning reference data and creating data sets provide you the flexibility to handle the reference data to fulfill your business requirements. You can share modular information and data processing options among business units with ease. You can create separate sets and subsets for each business unit. Alternatively, you can create common sets or subsets to enable sharing reference data between several business units, without duplicating the reference data.

The following figure illustrates the reference data sharing method. The user can access the data assigned to a specific set in a particular business unit, as well as access the data assigned to the common set.



Related Topics

- Reference Data Sets and Sharing Methods
- Assignment of Reference Data Sets to Reference Objects

Reference Data Sets and Sharing Methods

Oracle Fusion Cloud Applications reference data sharing feature is also known as Set ID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses.

As a result, there's a reduction in the administrative burden and the time to implement new business units. For example, you can share sales methods, or transaction types across business units. You may also share certain other data across asset books, cost organizations, or project units.

The reference data sharing features use reference data sets to which reference data is assigned. The reference data sets group assigned reference data. The sets can be understood as buckets of reference data assigned to multiple business units or other application components.

Reference Data Sets

You begin this part of your implementation by creating and assigning reference data to sets. Make changes carefully as changes to a particular set affect all business units or application components using that set. You can assign a separate set to each business unit for the type of object that's being shared. For example, assign separate sets for payment terms, transaction types, and sales methods to your business units.

Your enterprise can determine that certain aspects of your corporate policy can affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This allows your enterprise to balance autonomy and control for each business unit. For example, your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level. In such a case, you can let managers define their own sales methods, but define payment terms centrally. In this example:

- Each business unit has its own reference data set for sales methods.
- One central reference data set for payment terms is assigned to all business units.

The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You're adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly set up data for this entity component. You can establish other business unit reference data in a business unit-specific reference data set as needed.

Reference Data Sharing Methods

Variations exist in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. This method is the simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. This method is the most commonly used method of sharing reference data that allows defining reference data object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that's available to all the business units. You need not explicitly assign the transaction types to each business unit. In addition, you can assign a business unit-specific set of transaction types. At transaction entry, the list of values for transaction types includes the following:
    - Transaction types from the set assigned to the business unit.
    - Transaction types assigned to the common set that's shared across all business units.
- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but assign Net 15 to a set specific only to your business

unit. At transaction entry, the list of values for payment terms consists of only the set that's assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set. Also update the data set going forward as you create reference data items.

Related Topics

- Items and Supplier Site Reference Data Sharing
- What reference data objects can be shared across cost organizations?
- What reference data objects can be shared across project units?
- What reference data objects can be shared across business units?
- What reference data objects can be shared across asset books?

Assignment of Reference Data Sets to Reference Objects

You can assign the reference data sets to reference objects using the Manage Reference Data Set Assignments page. For multiple assignments, you can classify different types of reference data sets into groups and assign them to the reference entity objects.

The assignment takes into consideration the determinant type, determinant, and reference group, if any.

Determinant Types

The partitioned reference data is shared using a business context setting called the determinant type. A determinant type is the point of reference used in the data assignment process. The following table lists the determinant types used in the reference data assignment.

Determinant Type	Description
Asset Book	Information about the acquisition, depreciation, and retirement of an asset that belongs to a ledger or a business unit.
Business Unit	The departments or organizations within an enterprise.
Cost Organization	The organization used for cost accounting and reporting on various inventory and cost centers within an enterprise.
Project Unit	A logical organization within an enterprise that's responsible for enforcing consistent project management practices.
Reference Data Set	References to other shared reference data sets.

Determinant

The determinant (also called determinant value) is a value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the appropriate reference data set.

Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data). However, all reference entities are treated alike because of similarity in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups. For example, all tables and views that define Sales Order Type details might be a part of the same reference group. Reference groups are predefined in the reference groups table.

ISO Reference Data

Considerations for Defining Currencies

Consider these points about entering the currency code, date range, or symbol for the currency, when you create or edit currencies.

Currency Codes

You can't change a currency code after you enable the currency, even if you later disable that currency.

Date Ranges

You can enter transactions denominated in the currency only for the dates within the specified range. If you don't enter a start date, then the currency is valid immediately. If you don't enter an end date, then the currency is valid indefinitely.

Symbols

Some applications support displaying currency symbols. You may enter the symbol associated with a currency so that it appears along with the amount.

Related Topics

- What's the difference between precision, extended precision, and minimum accountable unit for a currency?
- What's a statistical unit currency type?
- Euro Currency Derivation

Euro Currency Derivation

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states.

For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date. If you have to use a different currency for Euro, you can disable the predefined currency and create a new one.

Derivation Type

The **Euro currency** derivation type is used only for the Euro, and the **Euro derived** derivation type identifies national currencies of EMU member states. All other currencies don't have derivation types.

Derivation Factor

The derivation factor is the fixed conversion rate by which you multiply one Euro to derive the equivalent EMU currency amount. The Euro currency itself must not have a derivation factor.

Derivation Effective Date

The derivation effective date is the date on which the relationship between the EMU currency and the Euro begins.

Language Packs on Your Application

A language pack contains artifacts that are translated to a specific language. Translated artifacts include UI text, predefined data, messages, BI catalog data, and so on.

Here are the supported languages other than American English:

- Arabic
- Chinese (Simplified)
- Chinese (Traditional)
- Croatian
- Czech
- Danish
- Dutch
- Finnish
- French (Canadian)
- French (European)
- German
- Greek
- Hebrew
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Portuguese (Brazilian)
- Polish
- Romanian
- Russian

- Slovak
- Spanish
- Swedish
- Thai
- Turkish
- Ukrainian
- Vietnamese

How to Install Language Packs

To install language packs on all your environments, contact your help desk. For more information about language packs, see Oracle Applications Cloud Service Definition - Language Packs (2073202.1) on My Oracle Support at https://support.oracle.com. There's no limit to the number of language packs you can ask for in one service request. But you must only install the language packs you need to conduct your day-to-day business because of these reasons:

- Once you request a language pack, the installation will be scheduled for all your environments, including production, staging, and test environments, so that they're all in sync.
- It takes time and resources to install language packs. So you might get extended outages during updates, especially if you have four or more language packs installed in your environments.
- Once you install any language, you can't uninstall it later.

You can view all available languages, whether they're already installed or available for installation and translation. In the Setup and Maintenance work area, use the **Manage Languages** task in the Application Extensions functional area. Each dialect is treated as a separate language. Generally, you don't need to edit any of the fields on the Manage Languages page, unless absolutely necessary.

Related Topics

- How do I update existing setup data?

Considerations for Natural Languages

Natural languages are all the languages that humans use, written and spoken. If a language is enabled, then users can associate it with entities, for example as languages spoken by sales representatives.

When managing natural languages, consider tasks to perform and best practices for entering particular values.

Tasks

Once you add a language, it can't be deleted, but just disabled. You can optionally associate natural languages with International Organization for Standardization (ISO) languages and territories, just for reference.

Values

When you create a natural language, use the alpha-2 ISO code as the language code, or, if not available, then alpha-3. If the language isn't an ISO language, then use **x-** as a prefix for the code, for example **x-ja** for a Japanese dialect. Use the **sgn** code of ISO-639-2 for sign languages, followed by territory code, for example **sgn-US** for American Sign Language. You can also use Internet Assigned Numbers Authority (IANA) language tags.

The natural language description must be the language name with territory name in parenthesis where needed, for example **English (Australia)** and **English (Canada)**.

FAQs for ISO Reference Data

When do I create or edit territories?

The predefined territories are countries from the International Organization for Standardization (ISO) 3166 standard. Edit territory descriptions to determine how they're displayed in lists of country values in an application.

You don't have to edit territory names or codes unless there is a specific requirement. Create territories if new countries emerge and the application isn't yet patched with the latest ISO country values.

> **Note:** The National Language Support (NLS) territory codes are territory identifiers used in the application. Don't edit the codes unless you must change the association between ISO and the application territory.

When do I create or edit industries?

To meet a specific business need, you may edit industry names or descriptions of industries except for those belonging to the North American Industry Classification System (NAICS). Edit the industry descriptions also to determine how they appear in an application.

You may also create industries with specifications not included in the NAICS standards.

When do I associate industries with territories?

To meet specific business needs, you can associate industries with territories. For example, administrators can configure a page in different ways for different sets of users of the same industry, but residing in different countries.

When do I create or enable currencies?

Create or enable any currency for displaying monetary amounts, assigning currency to ledgers, entering transactions, recording balances, or for any reporting purpose. All currencies listed in the International Organization for Standardization (ISO) 4217 standard are supported.

The default currency is set to United States Dollar (USD).

Related Topics

- Considerations for Defining Currencies

What do I do if a currency code I am still using in my existing transactions is desupported?

Temporarily remove the end dates of these currencies and close the transactions or wait for the transaction life cycle to complete. Then add the end dates for the currencies again so that you use new codes for any new transactions.

> **Note:** In General Ledger, you can't change the currency for existing ledgers. So if you're using any desupported currency codes as ledger currencies in primary, secondary, or reporting currency ledgers, then remove the end dates of these currencies to continue using them.

Here's how you update the end date for a currency code:

1. In the Setup and Maintenance work area, go to the **Manage Currencies** task in the Application Extensions functional area.

   > **Note:** If you don't see this task, make sure the Maintain Common Reference Objects feature is enabled at the offering level in the Offerings work area.

2. Search for the obsolete currency code, for example STD.
3. Remove the end date of the currency code.
4. Save your changes.

Related Topics

- How do I update existing setup data?
- Configure Offerings

What's the difference between precision, extended precision, and minimum accountable unit for a currency?

Precision refers to the number of digits placed after the decimal point used in regular currency transactions. For example, USD would have 2 as the precision value for transactional amounts, such as $1.00.

Extended precision is the number of digits placed after the decimal point and must be greater than or equal to the precision value. For calculations requiring greater precision, you can enter an extended precision value such as 3 or 4. That would result in the currency appearing as $1.279 or $1.2793.

Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for a cent.

You can set these values for a currency using the **Manage Currencies** task in the Application Extensions functional area in the Setup and Maintenance work area.

> **Note:** When setting up currencies, make sure you use the correct precision. Some currencies, for example, the Chilean peso, don't support precision at all.

What's a statistical unit currency type?

The statistical unit currency type denotes the Statistical (STAT) currency used to record financial statistics in the financial reports, allocation formulas, and other calculations.

When do I create or edit ISO languages?

Edit the names and descriptions of International Organization for Standardization (ISO) languages to determine how they appear in the application. The ISO languages are a part of the ISO 639 standard.

If any change to the ISO standard doesn't reflect in the application, you can update the ISO alpha-2 code or add languages to provide up-to-date information.

Can I add or edit time zones?

You usually don't add or edit time zones because all standard time zones are provided. However, you may create time zones if new zones become standard and the application isn't yet updated with the latest values.

You can rename existing time zones and enable them. Only the enabled time zones are available for all users to select while setting their regional general preferences.

To add or edit time zones, use the following in the Setup Maintenance work area:

- Functional Area: Application Extensions
- Task: Manage Time Zones

Oracle Social Network Objects

Management of Oracle Social Network Objects

Use the Manage Oracle Social Network Objects task for managing the Oracle Social Network Objects. The integration of Oracle Social Network with applications and business processes brings key attributes from the applications to share, socialize, and update information.

This helps in making better business decisions based on additional information that you obtain and analyze within your social network environment.

Use the Manage Oracle Social Network Objects page to set up and define:

- The business objects and attributes to enable
- The enablement method for social network integration with Oracle Applications Cloud

To open the Manage Oracle Social Network Objects page, use the following in the Set and Maintenance work area:

- Functional Area: Application Extensions
- Task: Manage Oracle Social Network Objects

Use Oracle Social Network to:

- Discuss projects and plans in public forums
- Maintain:
    - Membership groups
    - Activity feeds of the people you select
- Facilitate:
    - One-on-one Conversations
    - Reviews
    - Document sharing

An important aspect of managing Oracle Social Network objects is enabling business objects for integration.

Enabling Business Objects for Integration

A business object can't be shared within social network until a functional administrator or implementor:

- Accesses the Manage Oracle Social Network Objects page in Oracle Applications Cloud

- Enables the business object for social network integration

Related Topics

- How can I update translations?
- Synchronization of Business Objects
- What happens if I synchronize business objects?
- What happens if I update translations?

Considerations for Enabling Social Networking on Objects

You can determine whether information about a business object, such as benefit plans or sales accounts, displays in Oracle Social Network. If you enable an object for sharing, you allow users to collaborate on the object through social networking.

You can choose whether all instances of an object are shared, or only at the user's discretion. You can also choose which attributes are shared, such as names, details, and who made the last update.

In addition to a wide range of predefined objects, you can share:

- Objects and attributes that you created in Application Composer
- Fields that you created in descriptive flexfields

In the Setup and Maintenance work area, use the following:

- Functional Area: Application Extensions
- Task: Manage Oracle Social Network Objects

After you click **Enable Object**, select one of the following enablement options:

- Manual
- Automatic
- No

Manual

If you select this option, which is recommended, you let users decide whether to share each instance of the object with the social network. Once shared, all updates to the enabled attributes of the instance appear on the social network. If the instance is deleted, that information is also shared.

Click **Enable All** to enable all objects for all applications. Enable All automatically applies the Manual option, which means that the user can choose whether to share an object instance.

Automatic

With this option, news about all instances of the object appears on the social network, including:

- Every newly created instance
- All subsequent updates to the enabled attributes
- Deletion of any instances

No

With this option, which is the default value, no news about the object appears on the social network.

> **Note:** When you click **Disable Object**, the enabled setting of the selected business object is automatically changed to No.

After you enable a business object, you must enable one or more attributes of the object. Only the enabled attributes are shared. The Status column in the Business Objects table indicates which enabled business objects don't yet have an enabled attribute. For these objects, only the following information appear on the social network:

- Internal bookkeeping information, when creating or updating an instance of the object.
- News that an instance is deleted.

Related Topics

- Management of Oracle Social Network Objects
- How can I update translations?
- What happens if I update translations?
- Synchronization of Business Objects
- What happens if I synchronize business objects?

Update Translations

The Update Translations process sends attribute labels and business object names to Oracle Social Network for use in the user interface.

In social network, attributes or business object labels appear in the language of your locale. If you change the locale in social network, then the attribute or business object labels appear in the updated language. However, the data appears in the language in which it was originally sent to social network. If you have previously sent an instance of the business object to social network, then the instance data isn't updated. Clicking **Update Translations** on the Manage Oracle Social Network Objects page sends translations for business objects with the option to enable as **Manual** or **Automatic**.

Related Topics

- Management of Oracle Social Network Objects
- Considerations for Enabling Social Networking on Objects
- What happens if I update translations?
- How can I update translations?
- When do I update translations?

Synchronization of Business Objects

Use Synchronize on the Manage Oracle Social Network Objects page to synchronize business objects. This resends the definitions of business objects having the enablement option as Manual or Automatic to Oracle Social Network.

Use the Synchronize button at the:

- **Business Objects table level**: To resend the definitions of a selected business object to social network. This button is enabled only when you select a row for a business object with the enablement option as **Manual** or **Automatic**.
- **Manage Oracle Social Network Objects page level**: To resend the definitions of all business objects with the enablement option as **Manual** or **Automatic** to social network.

Note: If you had modified any business object enabled for social network and not saved your changes, then on clicking **Synchronize**, a warning message appears. This message informs you that you haven't saved your changes, and you can select one of the following options:

- **Save and Synchronize**: To save the modified business objects, and synchronize the unmodified business objects.
- **Synchronize**: To ignore any unsaved business objects, and only synchronize the unmodified business objects.
- **Cancel**: To cancel the synchronization task.

FAQs for Oracle Social Network Objects

What happens if I update translations?

When you update translations, you send translations for business objects with the enablement option as Manual or Automatic to Oracle Social Network.

On updating translations, you also:

- Synchronize the newly translated text from Oracle Applications Cloud so that it can be used within social network. This means you can:
  - Install and enable a new language.
  - Take a language patch at any time.
- Send attribute labels and business object names to social network for use in its user interface.

How can I update translations?

Use Update Translations on the Manage Oracle Social Network Objects page for subsequent updates to labels and attributes.

Use the **Update Translations** button at the:

- **Business Objects table level**: To send translations for a selected business object to Oracle Social Network. This button is enabled only when you select a row for a business object with the enablement option as Manual or Automatic.
- **Manage Oracle Social Network Objects page level**: To send translations for all business objects with the enablement option as **Manual** or **Automatic** to social network.

Note: When you save the enablement of a business object to social network, it sends the translations as well. Hence, you need not click **Update Translations** after saving the enablement.

When do I update translations?

Run the Update Translations process only after you install a new language pack of Oracle Applications Cloud.

Updating translations synchronizes the newly translated text to Oracle Social Network for integration with Oracle Applications Cloud.

> **Note:** When you save the enablement of a business object to social network, it sends the translations as well. Hence, you need not click **Update Translations** after saving the enablement.

What happens if I synchronize business objects?

When you synchronize business objects, you resend the definitions of business objects having the enablement option as Manual or Automatic to Oracle Social Network.

When do I synchronize business objects?

Run the Synchronize process after you use configuration sets to import the setup from the Manage Oracle Social Network Objects page in another environment.

You can also run the process whenever you want to synchronize the settings of business objects with social network without making changes in the Manage Oracle Social Network Objects page.

Related Topics

- Contents of the Migration Set

Search Extension Framework

Overview of Search

Users can search for product-specific business objects, such as documents, records, and purchase orders. They can use highly responsive, index-based, and full-text search capabilities. The search platform has these components.

- The search engine, which provides primary search capabilities, such as indexing and querying, as well as supports search functions such as keyword and attribute search.
- The search extension framework, which serves as an integration layer between search engine and Oracle Applications Cloud.

Search Extension Framework

You can use the search extension framework to define product-specific searchable business objects and provide real time, index-based, and full-text search capabilities using REST and Java APIs.

This metadata-based framework supports search features, such as functional and data security and Natural Language Support. You can manage and configure the indexes after they're created, such as manage bulk uploads or provide production-to-test support.

Here are some of the things you can view in the search results using this framework.

- List of attributes and their associated set of available values. The attribute search results are based on the attributes of the business objects. After selecting a value for each attribute in the search result, you get more filtered results.
- Action links associated with the searchable objects. From the search results, you can either go straight to the related page or open a specific task.
- Recent searches for all the business objects enabled in the search.
- Basic search results based on the keywords used.
- Configured attachments related to transactional objects and record in your application.

Note: The search extension framework is available only for certain product families. Refer to the product-specific documentation to determine if your product uses this framework.

Enable Search Extension Framework

Enable the search extension framework to create indexes, ingest predefined indexes, perform bulk ingest, and manage search capabilities.

- Make sure the **Enable/Disable Search Ext Framework** (**ORA_FND_SEARCH_EXT_ENABLED**) profile option is set to **Yes**. By default, this functionality is enabled and can't be edited.
- Make sure that you've the Manage Scheduled Job Definition (FND_MANAGE_SCHEDULED_JOB_DEFINITION_PRIV) privilege to run scheduled processes.
- Submit the **ESS job to create index definition and perform initial ingest to OSCS** process for creating indexes and ingesting predefined indexes.

  Note: This job should only be run once and not on a regular or scheduled basis.

- Submit the **ESS job to run Bulk ingest to OSCS** process for ingesting bulk data to Oracle Search indexes.

Note: If you don't specify any index names while submitting the process, the process will run for all predefined indexes. We recommend you to create indexes related to your product family only. See the product-specific documentation to find the index names for your product family.

Related Topics

- Set Profile Option Values
- Submit Scheduled Processes and Process Sets

FAQs for Search Extension Framework

What do I do if the process for creating indexes keeps failing?

It might be because of one or more of these reasons.

- You entered incorrect index names while submitting the process. Make sure that your ESS job parameters have the correct index names. If the problem persists, contact your help desk.
- You might not have enabled the search extension framework. Make sure you enable it.
- Your search cloud service isn't reachable. To check its availability, submit the **ESS process to check Search Cloud Service availability** process.

What do I do if I get errors about enabling the search extension framework?

Follow these steps.

1. Make sure the **Enable/Disable Search Ext Framework** (**ORA_FND_SEARCH_EXT_ENABLED**) profile option is set to **Yes**.
2. Create indexes and ingest predefined indexes. To do so, submit the **ESS job to create index definition and perform initial ingest to OSCS** process.

   > **Note:** This job should only be run once and not on a regular or scheduled basis.

Related Topics

- Set Profile Option Values

What do I do if I get errors stating that the Oracle Search Cloud Service or OSCS isn't reachable?

Follow these steps.

1. Check the availability of search cloud service. To do so, submit the **ESS process to check Search Cloud Service availability** process.
2. Create indexes and ingest predefined indexes. To do so, submit the **ESS job to create index definition and perform initial ingest to OSCS** process.

   > **Note:** This job should only be run once and not on a regular or scheduled basis.

Related Topics

- Submit Scheduled Processes and Process Sets

Global Search

Overview of Global Search Setup

You have many options for setting up the global search, from enabling or disabling it completely to controlling what appears in the autosuggest. For most of the steps, use setup tasks in the Setup and Maintenance work area.

Enable Global Search

A predefined set of business objects, for example files related to purchase order, are available for global search. These objects are grouped into categories. The search gives you results from indexed data that matches your search term.

1. Check with your help desk to make sure that objects and categories are already set up.
2. Set the **Global Search Enabled** (**FUSION_APPS_SEARCH_ENABLED**) profile option to **Yes** at the Site level.
    - Otherwise, the **Search** field isn't available in the global header for any user.
    - After you set the profile option, users must sign out and sign back in to see the global search.

> **Note:** Enabling global search is the only mandatory setup. You can skip the following setup steps, and just use the default configuration for the global search.

Define Global Search

Use the following tasks in the Application Extensions functional area to control how the global search works:

- **Manage Applications Core Global Search Configurations**: Define configurations that capture a collection of settings, and determine which configurations are enabled or used as default. Each configuration applies to the global search on all or specific applications or pages.
- **Manage Applications Core Global Search Suggestion Groups**: Define suggestion groups, which represent categories of suggestions in the autosuggest.

Retain Recent Items

You can set the Recent Items Retention (FND_PURGE_RECENT_ITEMS) profile option to determine how long to retain recent items for the global search autosuggest. A page that the user opened can appear in the user's autosuggest until the specified number of days passes. Aside from the autosuggest, this profile option also applies to the recent items tracked in **Favorites and Recent Items** in the global header. The **Favorites and Recent Items** icon is available in the global header only if your default home page layout is panel or banner.

Related Topics

- Set Profile Option Values
- Examples of Global Search Configurations Set as Enabled or Default
- Create Global Search Configurations
- Suggestion Groups for Global Search

Global Search Configurations

Examples of Global Search Configurations Set as Enabled or Default

Each global search configuration contains settings for the global search, and a configuration can apply to specific pages or applications.

Use the Manage Global Search Configurations page to enable or disable configurations, and select the one to use as the default. The following scenarios explain which configurations actually apply to the global search, depending on the configurations that you enable or set as default.

Predefined Default

The predefined Default configuration is always enabled and set as a default. This configuration is the working default unless a custom global search configuration is also set as a default. In this scenario, you don't enable any other configuration, so this Default configuration applies to the global search on all pages, in all applications.

Custom Default

You create a global search configuration that applies to page A and application B. Later, you set your configuration as the default. Only this configuration and the predefined Default configuration are enabled. Both are set as default.

The result is that:

- Your configuration overrides the predefined Default one and becomes the working default.
- Even though you defined your configuration to apply to page A and application B, it now actually applies to all pages and all applications. This is because your configuration is the working default, and no other configuration is enabled.

Specific Pages or Applications

You're using either the predefined Default configuration or a custom configuration as the default. You also enable:

- **Configuration 1:** Applies to application A
- **Configuration 2:** Applies to application B and a few pages in application A

The result is that:

- Configuration 1 applies to all pages in application A, except the few pages that use configuration 2.
- Configuration 2 applies to all pages in application B, plus the few pages in application A.
- The default configuration applies to all other applications and pages.

Related Topics

- Create Global Search Configurations

Create Global Search Configurations

Predefined global search configurations control how the global search works. You can't edit predefined configurations, but you can duplicate them and edit the copies, or create your own from scratch.

1. In the Setup and Maintenance work area, go to the **Manage Applications Core Global Search Configurations** task in the Application Extensions functional area.
2. On the Manage Applications Core Global Search Configurations page, do any of these tasks:
    - Click the **Create** icon.
    - Select a row and click the **Duplicate** icon.

    > **Note:** Once you create a configuration, you can't delete it, but you can disable it.
3. For the short name (identifier for your configuration), enter an alphanumeric code with uppercase letters and no spaces.
4. Enter a user-friendly display name and description for the configuration.
5. Select the **Default** check box to use your configuration as the default instead of the predefined Default configuration. If another custom configuration was already set as the default, then your configuration becomes the new custom default.
6. Select a product family if the configuration is for applications or pages within a specific family. Otherwise, select **Common**.
7. If you're creating a duplicate, click **Save and Close**. To go on to the next steps and define more settings, select your configuration and click **Edit**.
8. Enter a module within the product family you selected. If you selected the Common family, then select the **Oracle Middleware Extensions for Applications** module.
9. Use these tabs to define your configuration:
    - Autosuggest: Determine what's available to users in the global search autosuggest, as well as how the autosuggest works.
    - Search Field: Control the **Search** field in the global header and in the search results dialog box.
    - Search Results: Enable or disable saved and recent searches, select the search categories available to users, and define settings for filters.
    - Pages: Indicate the applications or pages that this global search configuration applies to.

      > **Note:** If the Pages subtab isn't available or editable, you must deselect both the **Default** and **Enabled** check boxes on the Edit Global Search Configurations page. After completing your updates in the Pages tab, you can again select these check boxes.
10. Save your work.

Related Topics

- Modules in Application Taxonomy
- Set Up Autosuggest for Global Search
- Set Up Filters for Global Search
- Specify Pages for Global Search Configuration
- How do I update existing setup data?

Configure Attachment Search

You can enable or disable the file and content search for specific content types of attachments.

You can also set the maximum file size and content size so that your users can't search the file or content if the sizes exceed the specified limits. If enabled, the searched attachments are available for download.

Before you start, ensure that the **Enable Search Attachment** (**ORA_FND_SEARCH_ATTACH_ENABLED**) profile option is enabled.

Here's how you can configure the attachment search.

1. In the Setup and Maintenance work area, go to the **Manage Applications Core Global Search Configurations** task in the Application Extensions functional area.
2. On the Manage Applications Core Global Search Configurations page, click **Configure Attachment Search**.
3. On the Configure Attachment Search page, click the **Create** icon, and then specify the values in these fields.

> **Tip:** Alternatively, click **Create from Sample** to get the sample values, such as index names, content type, and maximum file size. Also, to view values for specific index names, you can select the index name from the **Index Name** list, and click **Create from Sample**.

Field	What You Do
Index Name	Select the index name specific to your product.
Content Type	Enter the content type. You specify the content type with a specific hierarchical structure, and based on that structure, you get the match of the attachments. Let's look at some examples. o If you specify the content type as **application/vnd.ms-excel** (for example, type/subtype), you get the exact match of the attachments. **Note:** The subtype in this example doesn't have a fixed structure. That means you can use either a dot or a hyphen to get the exact match of attachments for specified content type. o If you specify **application/vnd.ms-***, you get the match of attachments, which are of different types, such as Microsoft Word or Microsoft Excel. o If you specify **application/vnd.***, you get the match of the attachments, which are applicable to all suppliers. o If you specify ***/***, you get all the possible matches.
Enable File Search	Determine whether users can search the attachment.
Enable Content Search	Determine whether users can search the content in the attachment. For example, suppose you set this value as **Yes** for a specific type of attachment. Then, if a user searches for a keyword that's available in an enabled attachment, that attachment will appear in the search results.
Maximum File Size	Specify the maximum file size of the attachments that users can search content for. If the file size of an attachment is greater than the specified size, the content of the file won't appear in the search results at all. Only the metadata, such as file name, will be searchable.

Field	What You Do
Maximum Content Size	Specify the maximum content size of the attachments that users can search content for. Suppose you set this value as 200KB, users get the content in the attachments pertaining to this size in the search results. Make sure that this size is less than or equal to the maximum file size.

4. Click **Save and Close**.

Related Topics

- How do I update existing setup data?

Set Up Autosuggest for Global Search

Use global search configurations to determine what's available to users in the autosuggest. You select the suggestion groups to include in configurations. The configurations also determine how the autosuggest looks and behaves.

Prerequisite

Create a global search configuration or edit an existing one. Follow these steps:

1. In the Setup and Maintenance work area, go to the following:
    - Functional Area: Application Extensions
    - Task: Manage Applications Core Global Search Configurations
2. On the Manage Applications Core Global Search Configurations page, click the **Create** icon to create a global search configuration, or select an existing row and click the **Edit** icon to change it.

Defining the Content

To define synonyms, select suggestion groups and determine how they're displayed in the autosuggest:

1. On the page to create or edit global search configuration, click the Autosuggest tab.
2. In the Synonyms section on the Autosuggest tab, select **Enable Synonyms** to let users search using synonyms.
3. Optionally, enter the following:
    - **Synonym Context Code**: A logical grouping such as a product family, navigation group, or work area that determines the subset of synonyms to search on. For example, if you enter Academics, every time the user enters a term and clicks the **Search** icon, the search runs on all terms related to Academics and their synonyms.
    - **Synonym Object Type**: A business object name that would determine the subset of synonyms to search on. For example, if you enter Curriculum, every time the user enters a term and clicks the **Search** icon, the search runs on all terms related to Curriculum and their synonyms.
4. Click **Manage Synonyms**.
5. To add search terms and create synonyms for them, on the Manage Synonyms page:
    a. Click the **New** icon and do the following:
        - Enter a short name in uppercase, with no spaces. This name is required as an identifier.
        - Select a module name, which is required to map the data with a specific product or area. There are no restrictions on where the synonyms can be used.

- Optionally, enter a context code and object type. This information can be used to ensure that certain synonyms are only used when a global search configuration having the same values is in effect.
- Enter the primary synonym, which is the main term or business object to which other synonyms are to be matched.
- Enter at least one synonym that matches the primary synonym.

b. Click **Save and Close**.

6. Select the **Enable personalization of search groups** check box to allow users to override your configuration. Users can hide, show, and reorder suggestion groups for their autosuggest.
7. In the Suggestion Group section on the Autosuggest tab, move the groups you want to include into the **Selected Groups** pane. Use the **Move**, **Move All**, **Remove**, and **Remove All** icons to move the groups.

   The **Enabled** column in the Available Groups pane indicates if the group is defined (on the Manage Suggestion Groups page) to be displayed by default or not in the autosuggest.
8. In the **Enabled** column in the Selected Groups pane, select one of the following values:
   - **Inherit**: In the autosuggest, the group is displayed or hidden by default depending on what's defined for the group.
   - **Yes**: The group is displayed by default, no matter what's defined for the group.
   - **No**: The group is hidden by default, no matter what's defined for the group.

   > **Note:** The **Displayed by Default** column shows the resulting behavior in the autosuggest, based on what you select in the **Enabled** column.
9. Using the **Move to Top**, **Move Up**, **Move Down**, and **Move to Bottom** icons, order the selected groups as you want them to appear in the autosuggest.

> **Tip:** Click **Manage Suggestion Groups** at any time to edit or create suggestion groups. When you return to the Autosuggest tab, click **Refresh** to reflect the changes you made to suggestion groups.

Defining the Appearance

Optionally define settings in the Appearance section on the Autosuggest tab:

- **Show Suggestion Group Headings:** Select this option to display suggestion group headings (text and icon) in the autosuggest. Even if you do so, if a group is defined on the Manage Suggestion Groups page to not show headings, then its heading won't be displayed.
- **Show Icons:** Select this option to display icons next to suggestions in the autosuggest.
- **No Suggestions Message:** Enter the message that appears when no suggestions match the user's search term. If you leave this field blank, then no autosuggest or anything at all appears when there are no matches.

Defining the Behavior

Optionally define settings in the Behavior section on the Autosuggest tab:

- **Show Top Suggestions:** Enable this option to display suggestions in the autosuggest as soon as the user clicks in the search field, even without entering a search term. For example, the last few pages the user opened would appear as suggestions in the Recent Items group.
- **Minimum Characters for Autosuggest:** Enter the number of characters that users must enter in the search field before matching suggestions appear in the autosuggest.

- **Maximum Number of Suggestions:** Enter the maximum number of suggestions to be displayed across all suggestion groups. This total is distributed as equally as possible among the groups.

Related Topics

- Create Global Search Configurations
- Suggestion Groups for Global Search

Considerations for Disabling Saved and Recent Searches for Global Search

You can use global search configurations to determine if saved searches and recent searches are enabled in the global search.

Saved Searches

When you disable saved searches, here are a few things to keep in mind:

- The Save button in the search results dialog box also gets disabled. So, your users can't create or edit saved searches for global search.
- The Saved Searches suggestion group doesn't get disabled. So, your users can still see any applicable saved searches in the global search autosuggest.

Recent Searches

When you disable recent searches, here are a few things to keep in mind:

- The application doesn't save recent searches.
- The Recent Searches suggestion group doesn't get disabled. So, your users can still see in their autosuggest any applicable searches that they recently ran before you disabled recent searches.

Related Topics

- Create Global Search Configurations

Set Up Filters for Global Search

To determine how users can filter their search results, define the appropriate settings when you create or edit global search configurations.

You can set up search categories so that users can limit the scope of their search to begin with, or refine their search results.

Prerequisite

Create a global search configuration or edit an existing one. Follow these steps:

1. In the Setup and Maintenance work area, go to the following:
    - Functional Area: Application Extensions
    - Task: Manage Applications Core Global Search Configurations
2. Click the Create icon to create a global search configuration, or select an existing one and click the Edit icon to change it.

Setting Up Categories to Narrow Search Scope

To let users select the categories to search on before running the search:

1. On the page to create or edit global search configuration, click the Search Results tab.
2. In the Saved and Recent Searches section, select the check boxes to enable saved searches and recent searches.
3. In the Filters section, enable personalization of search categories.
4. In the Search Categories section, select the categories that users can search on. If you don't select any, then every category is available to users.
5. For each of your selected categories, select **Yes** or **No** in the Enabled column to have it enabled or disabled by default.

Setting Up Categories as Search Result Filters

To let users filter search results based on category:

1. In the Filters section, select a filter display style so that the list of all available category names are displayed:
    - **Inline:** In the Filters pane in the search results
    - **LOV:** In a Categories dialog box that users can open from the Filters pane
2. Select the check boxes to show subcategories, facets, or both. Categories are always displayed. Subcategories are an additional level of filters that appear after categories, and facets are a level after categories.
3. In the Search Categories section, select the categories to use as filters. This is the same set of categories to be used for personalization. If you don't select any, then every category is available to users.

Setting Other Options for Filters

You can also use the Filters section to:

- **Show hit counts:** Show the number of search results that match each filter value
- **Enable clear all filters:** Allow users to clear all filters with one click of a button
- **Show applied filters:** Show all the filters that have been applied

In the Last Updated Date Filters section, select the criteria to use as filters, based on the last update date. If you don't select any, then every date filter is available to users.

In the Appearance section, set the **Show Icons** option **Off** if you don't want to display the icons.

Related Topics

- Create Global Search Configurations

Specify Pages for Global Search Configuration

As part of defining your global search configuration, you can specify the pages or applications (or both) that your configuration applies to. If you want your configuration to apply to all pages in all applications, then skip these steps.

Before You Start

If you want the global search configuration to apply to specific applications, you need to find the application short name.

1. In the Setup and Maintenance work area, go to the **Manage Taxonomy Hierarchy** task in the Application Extensions functional area.

2. On the Manage Taxonomy Hierarchy page, expand the Oracle Fusion node.
3. Select the row (with the Application module type) for your application, and click **Edit Module**.
4. In the Application Details section, see the **Application Short Name** column and note down the value to use as the application short name.

Add Pages or Applications

Follow these steps:

1. On the Create or Edit Global Search Configurations page, open the Pages tab.
2. Click the **Create** icon.
3. In the **View Type** column, indicate if the configuration applies to a specific page or application.
4. Enter a view ID to identify the page or application:

   > **Tip:** You can use **%** as a wildcard for the page or application value, such as **Example%** for all pages that start with **Example**.

   - **Page:** Enter the last part of the URL you get when you open that page. For example, enter `ExamplePage` from the URL `http://exampleServer/homePage/faces/ExamplePage`.
   - **Application:** Enter the application short name with a wildcard at the end, for example `HomePageApp%`.
5. Add more pages or applications as needed.

Related Topics

- Create Global Search Configurations
- Modules in Application Taxonomy
- How do I update existing setup data?

Suggestion Groups

Suggestion Groups for Global Search

A suggestion group is a category of suggestions that users see in the autosuggest for the global search.

For example, if the user enters Report in the **Search** field, then the Navigator suggestion group in the autosuggest shows any Navigator menu names with Report.

Managing Suggestion Groups

Each suggestion group can have a heading, for example Recent Items, as well as an icon that appears before the heading text. The icon helps users identify what the group is all about.

You can manage suggestion groups to:

- Show or hide the group by default in the autosuggest
- Enter the heading text
- Define if the heading text appears in the autosuggest or not
- Identify the image file to use as the icon

> **Tip:** You can copy predefined suggestion groups and edit them to create your own versions.

To manage suggestion groups, open the Setup and Maintenance work area and use either the:

- Manage Suggestion Groups task
- Autosuggest tab when you create or edit global search configurations using the Manage Global Search Configurations task

Using in Global Search Configurations

Just because a suggestion group is defined to be displayed by default doesn't necessarily mean that it in fact appears in the autosuggest. Global search configurations determine which groups are included for the autosuggest, whether icons appear for the headings, and so on.

You can use a suggestion group in many or all global search configurations. And ultimately, if personalizing suggestion groups is enabled, then users can show, hide, and reorder the suggestion groups included in the global search configuration.

Related Topics

- Create Global Search Configurations
- Set Up Autosuggest for Global Search
- Change Heading Text and Icons for Suggestion Groups

Change Heading Text and Icons for Suggestion Groups

This example shows how to change the icon and text for a suggestion group heading in the global search autosuggest. In this example, you start out with the predefined Default global search configuration enabled, and no custom configurations.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which predefined suggestion group do you want to change?	Recent Items
What do you want the new heading text to be?	Recently Visited Pages
Which image do you want to use as the icon?	A `.png` file (16 by 16 pixels) that's used on your company Web site
Do you want the new suggestion group to appear in the autosuggest by default?	Yes
Which pages should the changes apply to?	All pages

To use a new icon and heading text for the suggestion group:

- Make a copy of the predefined Recent Items suggestion group.
- Update global search configurations to use your suggestion group.

Duplicate the Predefined Suggestion Group

1. In the Setup and Maintenance work area, go to the **Manage Applications Core Global Search Suggestion Groups** task in the Application Extensions functional area.
2. On the Manage Applications Core Global Search Suggestion Groups page, select the Recent Items group and click **Duplicate**.
3. In the new row, enter **RECENTPAGES** as the short name.
4. Change the display name to **Recent Pages**.
5. Change the description to **Version of Recent Items with revised heading and icon**.
6. With your new row still selected, click **Edit**.
7. In the Heading section, enter **Recently Visited Pages** in the **Text** field.
8. In the **Icon** field, enter the full URL to your .png file.
9. Click **Save and Close**.

Update Global Search Configurations

1. Back in the Setup and Maintenance work area, go to the following:
    - Functional area: Application Extensions
    - Task: Manage Applications Core Global Search Configurations
2. Select the Default configuration and click **Duplicate**.
3. Fill out the row for your new configuration, selecting the **Default** check box.
4. With the row still selected, click the **Edit** icon.
5. In the Autosuggest tab, click the **Refresh** button in the Suggestion Group section if you don't see your suggestion group.
6. Move the Recent Pages group into the **Selected Groups** list, and move the Recent Items group out.
7. In the **Enabled** column for the Recent Pages group, select **Yes**.
8. In the Appearance section, make sure that headings are set to be displayed.
9. Click **Save and Close**.

Related Topics

- Create Global Search Configurations
- Set Up Autosuggest for Global Search
- Examples of Global Search Configurations Set as Enabled or Default
- How do I update existing setup data?

6 Audit Policies

Audit Policies

Auditing is used to monitor user activity and all configuration, security, and data changes that have been made to an application. Auditing involves recording and retrieving information pertaining to the creation, modification, and removal of business objects.

All actions performed on the business objects and the modified values are also recorded. The audit information is stored without any intervention of the user or any explicit user action.

Use audit policies to select specific business objects and attributes to be audited. The decision to create policies usually depends on the type of information to be audited and to the level of detail required for reporting.

Enabling Audit Functionality

For Oracle Applications Cloud, you must configure the business objects and select the attributes before enabling audit. If you enable audit without configuring the business objects, auditing remains inactive. By default, auditing is disabled for all applications. To enable and manage audit, ensure that you have a role with the assigned privilege Manage Audit Policies (FND_MANAGE_AUDIT_POLICIES_PRIV). For appropriate assignment of roles and privileges, check with your security administrator.

To enable auditing for Oracle Fusion Middleware products, select one of the levels at which auditing is required for that product. The audit levels are predefined and contain the metadata and events to be audited. For more information, see *Audit Events for Oracle Applications Cloud Middleware (Doc ID 2114143.1)* on My Oracle Support.

If you don't want an application to be audited, you can stop the audit process by setting the Audit Level option to **None**. Also, note that there's no specified retention period for the audited data or the logs. Follow your company policy for retaining or removing such data.

> **Note:** You won't be able to enable audit if you're working in a sandbox. If you try to set up audit while you're in a sandbox, you will see the message "Audit setup is disabled in a sandbox". You'll also notice that the buttons associated with the audit functionality are disabled.

Related Topics

- Audit Configuration for Business Object Attributes
- Overview of Audit Configuration

Audit Configuration for Business Object Attributes

Audit enables tracking the change history of particular attributes of a business object. However, those objects and their attributes must be selected for audit and auditing must be enabled for that application.

The configuration settings determine which attributes to audit for a given object, and when the audit starts and ends. Auditing takes into account all the operations performed on an object and its attributes, such as create, update, and

delete. To configure audit business object attributes, use the **Manage Audit Policies** task in the Setup and Maintenance work area.

Selecting an Application

To set up auditing, you must select a web application that contains the required business objects that can be audited. From the list of business objects, select those business objects that you want to audit. Selecting a business object also displays its attributes that are enabled for auditing.

Selecting Attributes

For each selected business object to be audited, select the corresponding attributes to include in the audit. All attributes that belong to that object are by default selected for audit and appear on the user interface. However, you can add or remove attributes from the list. When you remove an attribute from the list, you stop auditing it even when the parent object is selected for audit. So, if you want an attribute to be audited, you must add it to the list. If the object selected in an audit hierarchy is also a part of several other audit hierarchies, the attribute configuration for that object is applicable to all the hierarchies in that application.

For business objects based on flexfields, select the Flexfields (Additional Attributes) check box to view, add, or remove flexfield attributes. The selected objects are audited.

Note: You can't audit LOB (BLOB, CLOB, and NCLOB), rich text, and long text attributes.

Starting and Stopping Audit

The business object is ready for audit after you select its attributes and save the configuration changes. However, to start auditing, the audit level for Oracle Applications Cloud must be set to **Auditing** on the Manage Audit Policies page.

To stop auditing an object, you can deselect the entire object and save the configuration. As a result, all its selected attributes are automatically deselected and aren't audited. To continue to audit the business object with select attributes, deselect those attributes that aren't to be audited. When users view the audit history for an application, they can specify the period for which they want the results. Therefore, make a note of when you start and stop auditing an application.

For example, users intend to view the audit history of an object for the previous week, but auditing for that object was stopped last month. They wouldn't get any audit results for that week, because during the entire month that object wasn't audited. Even if you enable audit for that object today, users can't get the wanted results because audit data until today isn't available.

Note: When users export the report summary to a Microsoft Excel file, there's a limit on the number of rows that are displayed in the file.

- For Oracle Fusion Middleware products, the maximum limit is 25000. By default, the limit is set as 10000. You can change this limit using the FND_AUDIT_FMW_EVENT_LIMIT profile option.
- For Oracle Fusion Application Business Objects, the maximum limit is 10000 per table. This is set as the default value. Sometimes, the actual rows returned might be more than the limit set, because a single transaction can update multiple tables. To decrease this limit, you can create the FND_AUDIT_EXPORT_ENTITY_LIMIT profile option and set a lesser value for it.

  See *Why is it taking so long to get search results when exporting audit summary of Fusion Application Business Objects?*

Overview of Audit Configuration

To set up auditing for Oracle Applications Cloud, select the Manage Audit Policies task from the Setup and Maintenance work area within your offering.

To set up auditing for Oracle Fusion Middleware products, select the level of auditing mapped to a predefined set of metadata and the events that have to be audited. Information about configuring audit for Oracle Fusion Middleware products is provided in Oracle Fusion Middleware guides.

You can also create a configuration file and deploy it to audit a specific Oracle Fusion Middleware product. The configuration details for Oracle Fusion Middleware products are available as audit-specific assets that you can use to create the **config.xml** configuration file. To get a list of audit-specific assets, see *Audit Events for Oracle Applications Cloud Middleware (Doc ID 2114143.1)* on My Oracle Support.

Oracle Fusion Middleware Products

- Configure business objects to enable auditing in Oracle Fusion Middleware products. Refer to Oracle Applications Cloud Common Features Reference.

  See: *Auditing Web Services*

Oracle Fusion Security Products

- Configure business objects to enable auditing in Oracle Fusion security products. Refer to Oracle Applications Cloud Common Features Reference.

  See: *Introduction to Oracle Fusion Middleware Audit Framework*

  See: *Managing Audit*

Impersonation Audit

Users can temporarily designate other users to impersonate their profiles and perform application tasks on their behalf. Let's understand how the tasks that an impersonator does in the application, are audited.

Here are a few things to know about impersonation auditing:

- Impersonation auditing is controlled using the **Audit Impersonation Transaction Enabled** profile option. By default, it's enabled and the profile value is set to **Yes**. To disable it, set the profile value to **No**.
- Even when auditing is disabled for an application, impersonation auditing remains active.
- At runtime, the audit setup tracks and stores information about attributes, even when auditing isn't enabled for the attributes.
- While viewing audit history, users can retrieve the audited information, filtered by an impersonated user.

Impersonation auditing is limited in scope and applies only to the business objects in the **Manage Audit Policies** task.

Updates that an impersonator can do, based on the value of Audit Impersonation Transaction Enabled profile option

Impersonation Auditing Enabled?	What an Impersonator can do
Yes	Impersonator can update only the business objects in the **Manage Audit Policies** task. This is because, impersonation auditing information can be fully captured only for these business objects.
No	Impersonator can update business objects that aren't part of the **Manage Audit Policies** tasks also. **CAUTION:** Even if impersonation auditing is disabled, impersonation information is still captured in the audit tables. But, if there's no corresponding audit table for the base table, then the activities are audited as if the actual user performed them.

Related Topics

- Designate Proxies
- Work as a Proxy

7 Enterprise Scheduler Job Definitions and Job Sets

Overview of Managing Job Definitions and Job Sets

Users run scheduled processes based on jobs to process data and, in some cases, to provide report output.

Each job has a job definition which, for example, determines the parameters that users can set. Jobs are based on Oracle Enterprise Scheduler Services. Using Enterprise Scheduler Jobs tasks, you can define job definitions, list of values sources, and job sets.

- **Job Definitions**: Contain the metadata about the job and the options available to users. A job definition is defined by a job type, such as Oracle Analytics Publisher or PL/SQL Job type or others.
- **List of Values Sources**: Determine where a list of values for the parameters in a job definition comes from and what the specific values are.
- **Job Sets**: Collections of several jobs in a single process set that the users submit instead of running separate jobs.

The various Enterprise Scheduler Jobs tasks are:

- Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications
- Manage Enterprise Scheduler Job Definitions and Job Sets for Human Capital Management and Related Applications
- Manage Enterprise Scheduler Job Definitions and Job Sets for Customer Relationship Management and Related Applications

In the Setup and Maintenance work area, you can find these tasks in the Application Extensions functional area, or, depending on your offering, another functional area. If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level in the Offerings work area.

Related Topics

- Job Definitions
- Manage List of Values Sources
- Job Sets
- What are scheduled processes?
- Configure Offerings
- Best Practices for Scheduled Processes in Fusion Applications

Manage List of Values Sources

A list of values source for job definitions determines where a list of values comes from and what the specific values are. Users can select from the list when they set parameters.

For example, the list of values for a Country parameter gives users a list of countries to choose from. You can create list of values sources to use in job definitions that you or someone else created. Parameters in predefined job definitions can have lists of values too, but not from list of values sources that you can manage. But if you duplicate a predefined job definition, list of values sources might be automatically created for your new job definition. You can manage those sources as you would a source that you created yourself.

Here's how you get started to create, edit, or delete list of values sources:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

   > **Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. Click the Manage List of Values Sources tab. If you don’t see anything here, that just means you haven’t created any sources or duplicated any predefined job definitions that would result in automatically creating list of values sources.
3. Go on to create or edit list of values sources.

Create List of Values Source

Create a source based on predefined view objects or your own SQL query.

- For predefined view objects, contact your help desk to find out if there are any that meet your needs. And to get the view object's full path, which you enter when creating the list of values source.
- For your own SQL query, you can see the Tables and Views guides for more information, if you want to base the list of values source on a specific table or view.

Your list of values source might behave differently from similar sources used in predefined jobs. There are some limitations to creating custom sources. For example, you can’t add new filtering criteria or configure the search.

1. On the Manage List of Values Sources tab, click the **Create** icon.
2. In the Create List of Values Source dialog box, select something from the **Application Name** list that's related to your list of values. If you don't know what to select or can't find anything that applies, just select **Application Toolkit**.
3. In the **User List of Values Source Name** field, enter a name that helps you identify your list of values source.
4. From the **LOVType** list, select **Predefined** to use a view object or **User Defined** to use a SQL query.

5. If you selected Predefined, then in the **List of Values Source Definition Name** field, enter the full path of the view object that your help desk provided.

   If you selected User Defined, enter your own SQL in the **Query** field.

   - Your query can't have any aggregate function like DISTINCT, SUM, MAX, or AVG in the direct select clause. It can't have UNION, UNION ALL, INTERSECT, or MINUS either.
   - If you absolutely need to use any of those functions, you need to wrap the query in another select clause. Here are a couple examples:

Don't Use This	Use This Instead
`SELECT DISTINCT CHANNEL.MEANING MEANING FROM FND_LOOKUP_VALUES_TL`	`SELECT MEANING FROM (SELECT DISTINCT MEANING MEANING FROM FND_LOOKUP_VALUES_TL);`
`select lookup_code as LookupCode from fnd_lookup_values_b where lookup_type='EXM_REPORT_STATUS' UNION select 'NULL' as LookupCode from dual`	`SELECT LOOKUPCODE FROM (select lookup_code as LookupCode from fnd_lookup_values_b where lookup_type='EXM_REPORT_STATUS' UNION select 'NULL' as LookupCode from dual)`

6. Make sure everything looks fine and then click **Save and Close**. You can't change most of the things about your source after you create it.

Edit or Delete List of Values Source

Here are some things to know about editing and deleting list of values sources, which you can do on the Manage List of Values Sources tab.

- You can edit only the application name and description.
- When you delete a list of values source, you can't find it and manage it any more, but it's not really gone. Any job definitions using that source can continue using it. So after you delete a source, you can't create another one later with the same name, even though you won't be able to find the deleted one. To avoid confusion, it's recommended that you don't ever delete any list of values source. Just create new ones as needed, with unique names.

Related Topics

- How do I update existing setup data?
- Configure Offerings

Assign Roles for Access to Manage Scheduled Processes

Users can view and manage the scheduled processes that they submit, for example, to cancel the process or see the output. But, if they need to do that for processes other people submitted, they need certain roles.

Here are the roles and what they let users do with scheduled processes that anyone submitted.

Role Name	Role Code	View	Update	Cancel	See Output	Republish Output
ESS Operator Role	ESSOperator	Yes	No	No	No	No
ESS Monitor Role	ESSMonitor	Yes	No	No	No	No
ESS Administrator Role	ESSAdmin	Yes	Yes	Yes	No	No
BI Administrator Role	BIAdministrator	No	No	No	Yes	Yes

You can use the Security Console to create a custom role that has the needed roles, and assign the custom role to the user. Usually it's best to give access just by giving users the needed roles.

- But, sometimes you might need to give more access to specific tasks. For example, someone with ESS Monitor Role can see scheduled processes from others, but they also need to put processes on hold. And you don't want to give them the ESS Administrator Role because that would be too much access.
- Another case is that a user should not have access to all processes, but they still need to do certain tasks for some processes.

In these cases, the custom role you assign to users should have a data security policy, which gives users access to certain tasks. Here are the actions you should choose from for the policy, for the specific tasks you want to give users access to.

Action	Description
ESS_REQUEST_CANCEL	Cancel processes.
ESS_REQUEST_HOLD	Put processes on hold.
ESS_REQUEST_OUTPUT_READ	See the output from processes.
ESS_REQUEST_OUTPUT_UPDATE	Update the output from processes, for example to change what output you want if the process hasn't started running yet.

Action	Description
ESS_REQUEST_READ	Access processes and view details.
ESS_REQUEST_RELEASE	Release processes that were put on hold.

Access for All Scheduled Processes

Here's how you give someone access to manage all processes:

1. On the Roles page in the Security Console, click **Create Role**.
2. On the Create Role: Data Security Policies page, create a data security policy only if you need to give access to specific tasks.
    a. For the **Data Resource** field, select **ESS_REQUEST_HISTORY**.
    b. For the **Data Set** list, select **All Values**.
    c. For the **Actions** list, select any of the tasks that you want to give access to.
3. On the Create Role: Role Hierarchy page, add any of the needed roles.
4. On the Create Role: Users page, enter the users you want to assign this custom role to.

Access to Do Certain Tasks for Specific Processes

Say you don't want to give users access to all scheduled processes. When you create the custom role, instead of selecting a role like ESS Monitor Role, you enter a condition that controls what processes are included. You first create the condition in a data resource:

1. On the Administration page in the Security Console, click **Manage Database Resources** on the General tab.
2. On the Manage Database Resources and Policies page, search with **ESS_REQUEST_HISTORY** in the **Object Name** field.
3. In the Search Results table, select the ESS_REQUEST_HISTORY database resource and click **Edit**.
4. On the Edit Data Security page, click the Condition tab.
5. On the Condition tab, click the **Create** icon.
6. In the Create Database Resource Condition dialog box, select **SQL predicate** for the **Condition Type** option.
7. In the **SQL Predicate** field, enter SQL that identify what processes to give access to, for example:

```
EXISTS
(select 1 from dual)
and DEFINITION in (
'JobDefinition://oracle/apps/ess/hcm/users/SyncRolesJob'
)
```

8. Save your work.

Now you're ready to create your custom role and assign it to users:

1. On the Roles page in the Security Console, click **Create Role**.
2. On the Create Role: Data Security Policies page, create a data security policy.
    a. For the **Data Resource** field, select **ESS_REQUEST_HISTORY**.
    b. For the **Data Set** list, select **Select by instance set**.
    c. For the **Condition Name** list, select the condition you created.

   d. For the **Actions** list, select **ESS_REQUEST_READ** so users can access the process in the first place. Include any other action that you want to give access to. For example, if the user needs to see output, select **ESS_REQUEST_OUTPUT_READ** too.
3. On the Create Role: Users page, enter the users you want to assign this custom role to.

Related Topics

- Create Roles in the Security Console

Allow Updates to Scheduled Process Priority

Every scheduled process has a default priority, from 0 to 9. When many scheduled processes are submitted, those with a lower number, for example 2, would usually run before those with a higher number, for example 7.

   1. You can set the **Scheduled process priority change allowed** (ESS_ALLOW_CHANGE_PROCESS_PRIORITY) profile option so that administrators can change the priority for specific submissions.
1. In the Setup and Maintenance work area, use the **Manage Applications Core Administrator Profile Values** task in the Application Extensions functional area. Set the **Scheduled process priority change allowed** profile option to **Yes** at the Site level.
2. In the Security Console, create a custom role that has the ESS Administrator Role (EssAdmin), and assign it to administrators who should have access to change priorities. Or, ask your security administrator to do this.

Related Topics

- Set Profile Option Values
- Assign Roles for Access to Manage Scheduled Processes

Job Definitions

Job Definitions

Scheduled processes are based on jobs that process data and, in some cases, provide output. Each job requires a job definition. A job definition can also include parameters and user properties that the user defines while submitting the scheduled process.

You are encouraged to use predefined scheduled processes as is, so usually you don't need to do anything with job definitions. But if you do need something specific to your needs, you can create Oracle Analytics Publisher reports as the basis for custom jobs, and create job definitions for those custom jobs. You can also duplicate predefined job definitions and edit your copy, mainly to update the parameters. But, usually you wouldn't duplicate predefined job definitions. Some of them can't be duplicated anyway, and there are many limitations to consider with the duplicate.

To view, create, edit, or duplicate job definitions, use the Manage Job Definitions tab on the Manage Enterprise Scheduler Job Definitions and Job Sets page. In the Setup and Maintenance work area, here's where you go to open that page:

- Functional Area: Application Extensions a product-specific functional area

- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

Viewing Job Definitions

Use the table on the Manage Job Definitions tab to view the job definitions created for the application. An asterisk in the name column indicates a predefined job definition. Not all job definitions are shown. You always see only the ones you have access to, and only the first 100 are shown when you open the tab.

Tip: Use Query by Example to find the job definition you're looking for, even those not shown in the table by default.

This table describes the columns in the table on the Manage Job Definitions tab.

Column Name	Description
Name	Name of the job definition.
Display Name	Name of the job definition as available to users while submitting scheduled processes.
Description	Description for the job definition.
Path	The full directory path where the job definition is saved.
Execution Type	The type of job request for the given job definition, such as a Java, C, PL/SQL, Perl, or hosted script job.
Job Type	The name of the job type that the job definition is based on. • BIPJobType: Jobs that run as Oracle Analytics Publisher reports • CJobType: Jobs that are implemented in C and run in the container • HostJobType: Jobs that run as host scripts executed from the command line • JavaJobType: Jobs that are implemented in Java and run in the container • PerlJobType: Jobs that are implemented in Perl and run in the container • PlsqlJobType: Jobs that run as PL/SQL procedures stored in a database server • SqlLdrJobType: Jobs that are implemented in SQL*Loader and run in the container • SqlPlusJobType: Jobs that are implemented in SQL*Plus and run in the container **Note:** If you create a brand new job definition (not by duplicating an existing one), the only job type you can use is BIPJobType.

Parameters

A parameter controls which records are included or how they are affected when the job runs. Parameters are available to users when they submit scheduled processes based on your job definitions. For example, a job updates only the records that are effective after the date that users enter in a Start Date parameter. You can create, edit and delete parameters for job definitions that are not predefined.

User Property

A user property is set in the job definition to attain some specific results.

Related Topics

- Create Job Definitions to Run Reports as Scheduled Processes
- Edit Job Definitions
- What are scheduled processes?
- Use Query By Example

Create Job Definitions to Run Reports as Scheduled Processes

Every job definition has a job type that reflects the executable for the job, such as Java or Oracle Analytics Publisher reports. You can only create job definitions that are based on Analytics Publisher reports.

When there's a job definition for an Analytics Publisher report, users can run the report as a scheduled process in the Scheduled Processes work area. Otherwise, they can open reports (which are set up to be run online) elsewhere, for example in the Reports and Analytics work area.

> **CAUTION:** Make sure your user name doesn't contain any spaces. If you create a custom job definition using a user name that contains spaces, other users might get errors when they submit this custom job definition.

Create Job Definitions

Here's how you create a job definition for an Analytics Publisher report:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

   > **Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, click the Manage Job Definitions tab.
3. Click the **Create** icon.
4. Fill in the Job Definition section.

Field or Check Box	What You Do
Display Name	Enter the name that users see and select to submit the scheduled process.
Name	Enter a name with only alphanumeric characters, for example, `AtkEssPrograms1`. It can't have spaces or any special characters.
Job Application Name	Select the application to associate the job definition with. What you select depends on the task you're using.

Field or Check Box	What You Do
	○ Manage Enterprise Scheduler Job Definitions and Job Sets for Customer Relationship Management and Related Applications: Select **CrmEss**. ○ Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications: Select **FscmEss**. ○ Manage Enterprise Scheduler Job Definitions and Job Sets for Human Capital Management and Related Applications task: Select **EarHcmEss**.
Enable submission from Enterprise Manager	Make sure you don't select this check box.
Job Type	Select **BIPJobType**. Don't select any other type.
Default Output Format	Select the output format users get by default when they submit the scheduled process.
Report ID	Enter the path to the report in the BI catalog, starting with the folder within Shared Folders, for example: `Custom/<Family Name>/<Product Name>/<Report File Name>.xdo`. Make sure to include the `.xdo` file extension for the report definition.
Enable submission from Scheduled Processes	Leave the check box selected.

5. In the Parameters subtab, you can define parameters that are available to users when they submit the scheduled process based on your job definition.
6. In the User Properties subtab, don't create or edit a user property unless you have the accurate information that's required to create or edit one. The `EXT_PortletContainerWebModule` user property is automatically created.
7. Click **Save and Close**.

When you create a job definition, a privilege with the same name as the job definition is automatically created with a Run prefix. For example, for a job definition named MyProcess1, with display name My Process, the privilege code is RUN_MYPROCESS1, with Run My Process as the name. Make sure to use the Security Console to assign this privilege to roles so that users who need to run the process can do so.

Related Topics

- Define Parameters for Job Definitions
- Manage List of Values Sources
- Edit Job Definitions
- How do I update existing setup data?
- Configure Offerings

Duplicate Job Definitions

A parameter controls which records are included or how they are affected when a job runs. Job definitions can have one or more parameters or none at all.

1. However, usually you wouldn't duplicate predefined job definitions. Some of them can't be duplicated anyway, and there are many limitations to consider with the duplicate. If you're duplicating a predefined job definition, make sure you test the duplicate carefully because it might not work exactly like the original.

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

   > **Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, click the Manage Job Definitions tab.
3. On the Manage Job Definitions tab, select a job definition with any job type.
4. Click **Duplicate** to get another row in the table with the duplicate job definition.
5. Select the duplicate job definition and click **Edit**.
6. Enter the name and path.
7. Update the parameters if you need to. Make sure that all mandatory parameters are populated properly.
8. Click **Save and Close**.

Results:

When you create a job definition by duplicating, a privilege with the same name as the duplicate job definition is automatically created with a Run prefix. For example, for a job definition named MyProcess1, with display name My Process, the privilege code is RUN_MYPROCESS1, with Run My Process as the name. Make sure to use the Security Console to assign this privilege to roles so that users who need to run the process can do so.

You also automatically create a view object with the same name in the list of values sources. Validations for the attributes in the parameters view object aren't copied over.

Related Topics

- Define Parameters for Job Definitions
- How do I update existing setup data?
- Configure Offerings

Edit Job Definitions

You can only edit certain fields in predefined job definitions, as some of the fields are read only. However, you can edit all aspects of job definitions that are not predefined.

Editing Job Definitions

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

   > **Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, open the Manage Job Definitions tab.
3. Select the job definition you want to edit.
4. Click **Edit**.
5. Make the changes that you want, for example:
   - You can edit the display name of the job definition to use terms that are more familiar to your users.
   - You can use the **Prompt** field to edit parameter display names.
6. Click **Save and Close**.

Predefined Job Definitions

You cannot update parameters in predefined job definitions, but this table lists some of the other fields that you can edit.

Field	Description
Retries	The number of times to automatically run this job again if the scheduled process fails.
Job Category	Specific to the application of the job definition, it's used to group definitions according to your requirements.
Timeout Period	The amount of time before stopping a scheduled process that couldn't complete.
Priority	Priority of scheduled processes submitted, with 0 as lowest. If other processes, based on the same or another job, are scheduled to run at the same time, then priority determines the run order.

Related Topics

- Job Definitions
- Create Job Definitions to Run Reports as Scheduled Processes
- How do I update existing setup data?
- Configure Offerings

Define Parameters for Job Definitions

A parameter controls which records are included or how they are affected when a job runs. Job definitions can have one or more parameters or none at all.

You define parameters while creating or editing job definitions using the Manage Enterprise Scheduler Job Definitions and Job Sets page. In the Setup and Maintenance work area, use the following:

- Functional Area: Application Extensions or a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

When users run the scheduled process for job definitions of type BIPJobType, the values they enter for the parameters determine the data to be included in the report. Also, the values are passed to the data model that the report is using.

The parameters that you define must be in the same order as parameters in the data model for the report. For example, the data model has parameters in this order:

- `P_START_DATE`
- `P_END_DATE`
- `P_CURRENCY`

You create parameters as follows:

- Start Date
- End Date
- Currency

Defining Parameters: Job Definitions

To define parameters while creating or editing job definitions:

1. On the Manage Job Definitions page, open the Parameters sub tab.
2. Click **Create**.
3. Enter the parameter prompt that users see when they submit the scheduled process.
4. Select a data type and configure how the parameter and the data entered are displayed, as described in this table.

Data Type	Fields
Boolean	Select this if you want the parameter to be a check box. Select **True** or **False** to determine if the check box is selected or not.
Date or time	Select **Date and time** or **Date only** option. Select a value from the **Default Date Format**.

Data Type	Fields
	Note: Make sure the format you select here is the same as the format used for the job. If the job definition type is BIPJobType, select **yyyy-MM-dd**, and make sure the data model for the corresponding Oracle Analytics Publisher report is using the same date format.
Number	Select a **Number Format**. Select **Left** or **Right** for data alignment.
String	Select a **Page Element**. Select **Text box** if you want the user to provide a text. Select **Choice list** if you want a list with limited options (maximum 10). If there are more than 500 values, users will get an error when they try to set the parameter as part of submitting the scheduled process. Select **List of values** if you want a list with unlimited options with a search facility.

5. Select the **Read Only** check box if you don't want to enable users to set this parameter. When a parameter is set as read only, the user is required to provide a default value to be passed to the job definition.
6. If you select list of values or choice list page element, select a **List of Values Source** and an **Attribute**. Use the list of values sources from the Manage List of Values Sources tab. Don't define lists of values in the data model that the report is using.
7. From the list of available attributes, select the attributes you want to appear in the list and move them to the selected attributes section. These attributes determine the values that the user can see.
8. Define a **Default Value** for the parameter.
9. In the **Tooltip Text** field, provide additional information for the user to follow.
10. Select the **Required** check box if users must set this parameter to submit the scheduled process.
11. Select the **Do not Display** check box if users should not see this parameter while submitting the process.
12. Click **Save and Create Another** or **Save and Close**.

Dependent Parameters

The attributes of some parameters depend on the attributes or values of certain other parameters. The attributes of a parameter would change if the value of its dependent parameter changes.

For example, you have three parameters, namely Country, State and, City. In this case, the value of the Country parameter would determine the values available in the State parameter. The values in the State parameter would determine the values available in the City parameter.

Related Topics

- Create Job Definitions to Run Reports as Scheduled Processes
- Define Dependent Parameters in Job Definitions

Define Dependent Parameters in Job Definitions

This example demonstrates how to define dependent parameters.

This table summarizes key decisions for this scenario.

Decisions to Consider	In this Example
Which parameters do I want to make dependent?	**Region**, **Country** and **City**. **Region** list of values includes the names of the regions like North America, EMEA, JAPAC and so on. The **Country** list of values includes the names of countries like USA, Canada, France, England, India, Japan and so on. Similarly **City** list of values includes the names of different cities like New York, Washington, London, Paris, Mumbai, Tokyo and so on. The **Country** parameter list of values includes only the countries like USA, Canada and so on, if user selects North America. The **City** parameter list of values includes the names of the cities in the country that the user has selected.
What are view criteria?	The view criteria determine the values that appear in the dependent parameter list of values for the users to see. The view criteria are used to filter the list and pass the required bind variables based on the user's selection. To filter countries based on the selected region, you must select **`getCountriesByRegion`** and pass **Region** as a bind variable.

Prerequisites

Create the parameters **Region**, **Country** and **City**. The values available to the users in the Country parameter list of values depends on the value selected for the Region parameter. City parameter list of values depends on the value that the user selects for the Country parameter.

Defining Dependent Parameters

To define parameters with dependent lists of values:

1. On the Manage Job Definitions tab, open the Parameters sub tab.
2. Select the **Region** parameter.
3. Click the **Manage Dependencies** button located next to the **Delete** button.
4. From **Available View Criteria**, select **`getCountriesByRegion`** and move it to **Selected View Criteria** using the move icons.

   The selected view criteria appears in the Bind Variables section.
5. In the Bind Variables section, for the **`getCountriesByRegion`** view criteria, select **Country** from the mapped parameters list of values.

   The Country parameter list of values is now dependent on the value selected for the Region parameter.
6. Click **OK**.
7. Repeat the steps with **Country** parameter. Select **`getCitiesByCountries`** from the available view criteria and pass **City** as a bind variable.

Related Topics

- Define Parameters for Job Definitions
- Create Job Definitions to Run Reports as Scheduled Processes
- Create Job Sets
- Manage List of Values Sources

Job Sets

Job Sets

A job set is a collection of several jobs in a single process set that the users can submit instead of running individual jobs separately.

The job set definition also determines if the jobs run in serial or parallel, or based on some other predetermined logic. In the Setup and Maintenance work area, go to the following:

- Functional Area: Application Extensions or a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

Use the Manage Enterprise Scheduler Job Definitions and Job Sets page to open the Manage Job Sets tab.

- On this tab, you can view and define job sets, and use Query By Example to find a specific job set.
- You can't edit or delete the predefined job sets which are indicated by an asterisk. You can create job sets, and also edit and delete job sets that are not predefined.

Job Set Steps

A job set can contain any number of individual jobs as well as other job sets. There can also be multiple levels of nested job sets within a single job set. For example, a job set can include three jobs and two job sets, one of which contains another job set. Each individual job or job set that's included within a job set is called a job set step. A job set and each of its job set steps can have additional parameters. Users provide the values for these parameters when they submit the process set.

Application Defined Properties

Some Job Sets require the user to enter certain additional properties before submitting a job request. Application Defined Properties are the additional properties that the user has to enter during runtime. For example, when `enableDuplicateJobWithParamTaskflow` property is set to **True**, it can be used to run a single job multiple times with different parameter values, within a job set.

System Properties

System Properties are the additional settings that determine how a job set runs. For example, you can use a system property to determine the number of retries for a job set that fails to execute. On this tab, you can view and define job sets, and use Query By Example to find a specific job set.

Related Topics

- Create Job Sets
- System Properties for Job Sets
- Overview of Managing Job Definitions and Job Sets

Create Job Sets

Create a job set so that users can run multiple jobs with a single submission.

Before you create the job set, plan the sequence and hierarchy of the job steps within the job set. You can create job sets using the Manage Job sets tab. You can also edit and delete job sets that aren't predefined.

> **Note:** Remember, when you're creating a job set, you should use jobs only from a single module. If you need to use jobs from multiple modules, create separate job sets.

Steps to Create Job Sets

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

   > **Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, open the Manage Job Sets tab.
3. Click **Create**.
4. Complete the fields as shown in this table.

Field	Description
Name	Provide a name with only alphanumeric characters, for example, `ExportMetadataTables1`. **Note:** A job set name can't have space or any special character.
Display Name	Provide a name that the users see while submitting the scheduled process.
Description	Provide more information about what the job set does.
Package	Specify the path where you want to save the job set.

5. In the Job Set Steps section, select **Serial** or **Parallel** to define the sequence of the job set.
6. Click **Add Job Set Step** to open the Add Step dialog box.
7. In the Step tab:
    a. Enter a **Step ID** to easily identify the steps.
    b. Search for and select a job or job set to include in your job set.
    c. Select **Job definition** or **Job set**.
    d. Type a valid name or package, or both of the Job or Job Set you are looking for and click search.
    e. Select the required job definition or job set and click **OK**.
    f. If you selected Parallel in step 4:
        - Select **Insert into main diagram** if you want the step to be executed independently.
        - Select **Add to list of available steps** if you want the step to be one of the outcomes in the available steps.
        - If you choose to add the step to the list of available steps, select an option for the possible job outcomes. For example, you can determine whether the process must stop or another step must be executed if the step fails to run successfully.
8. In the **Application Defined Properties** tab:
    a. Click **Add Application Defined Property** icon and select a data type.
    b. Enter a name and an initial value.
    c. Select the **Read Only** check box if you don't want users to update this property when they submit the process set.
    d. Click **OK**.
9. In the **System Properties** tab:
    a. Click **Add System Property**.
    b. From the name list, select a system property.
    c. Enter a value in the **Initial Value** field.
    d. Select **Read Only** check box if you don't want users to update this property when they submit the process set.
    e. Click **OK**.

    > **Note:** You can also add and edit the Application Defined Properties and System Properties in the respective sections on the Create Job Set page.

10. Click **OK** to add the Job Set Step.
11. Add jobs and job sets as required. You can select job steps in the Job Set Steps section and edit, remove, or reorder (for Serial only). You can also switch between **Serial** and **Parallel**.
12. Click **Save and Close**.

> **Note:** When you create a job set, a privilege with the same name as the job set is automatically created with a Run prefix. For example, for a job set named ExportAppsData, with display name Export Application Data, the privilege code is RUN_EXPORTAPPSDATA, with Run Export Application Data as the name. Make sure to use the Security Console to assign this privilege to roles so that users who need to run the process set can do so.

Related Topics

- Job Sets
- System Properties for Job Sets
- Overview of Managing Job Definitions and Job Sets
- How do I update existing setup data?
- Configure Offerings

System Properties for Job Sets

System Properties are the additional settings that determine how a job set runs. For example, you can use a system property to determine the number of retries for a job set that fails to execute.

You can open the Manage Job Sets tab using the Manage Enterprise Scheduler Job Definitions and Job Sets page. In the Setup and Maintenance work area, use the following:

- Functional Area: Application Extensions or a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

System Properties

This table lists some system properties with description.

System Property Name	Description
`SYS_allowMultPending`	Specifies if the same job definition can have multiple pending requests.
`SYS_application`	Specifies the logical name of the Scheduling Services folder application used for request processing. Oracle Enterprise Scheduler automatically sets this property during request submission.
`SYS_effectiveApplication`	Specifies the logical name of the Scheduling Services folder application that is the effective application used to process the request. You can associate a job definition, job type, or a job set step with a different application by defining the **`EFFECTIVE_APPLICATION`** system property. This property can only be specified through metadata and cannot be specified as a submission parameter.
`SYS_priority`	Specifies the request processing priority. The priority interval is 0 to 9, where 0 is the lowest priority and 9 is the highest. If this property is not specified, the default value used is 4.
`SYS_product`	Specifies the product used for submitting the request.
`SYS_request_timeout`	Enables the job request to time out.
`SYS_requestExpiration`	Specifies the expiration time for a request. This represents the time (in minutes) that a request will expire after its scheduled execution time. An expiration value of zero (0) means that the request never expires. If this property is not specified, the default value used is 0.

System Property Name	Description
	Request expiration only applies to requests that are waiting to run. If a request waits longer than the specified expiration period, it does not run. After a request starts running, the request expiration no longer applies.
`SYS_retries`	Specifies the retry limit for a failed request. If request execution fails, the request is retried up to the number of times specified by this property until the request succeeds. If the retry limit is zero (0), a failed request is not retried. If this property is not specified, the default value used is 0.

Related Topics

- Job Sets
- Create Job Sets

FAQs for Enterprise Scheduler Job Definitions and Job Sets

Why can't I see certain job definitions, and how do I find them?

In the table on the Manage Job Definitions tab, not all job definitions are shown. You always see only the ones you have access to, and only the first 100 are shown when you open the tab.

Use Query by Example to find what you're looking for, even the job definitions that aren't shown in the table by default.

Related Topics

- Use Query By Example

What do I select for job application name when I create a job definition?

What you select from the **Job Application Name** list depends on the setup task you're using.

- Manage Enterprise Scheduler Job Definitions and Job Sets for Customer Relationship Management and Related Applications: Select **CrmEss**.
- Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications: Select **FscmEss**.
- Manage Enterprise Scheduler Job Definitions and Job Sets for Human Capital Management and Related Applications task: Select **EarHcmEss**.

Can I use a table value set as the list of values for a parameter?

No, you should create a list of values source instead to provide the same values for the parameter.

How can I restrict user access so that they can run only custom scheduled processes?

You can try creating a custom role with the Manage Scheduled Processes (FND_MANAGE_SCHEDULED_PROCESSES_PRIV) privilege to give access to the Scheduled Processes work area, along with the privileges that are automatically created when you create a job definition or job set.

> **Note:** You need to test the custom role to make sure it doesn't have any roles or privileges that give access to predefined processes.

Where to Find Information About Student Management Scheduled Processes

Here are some of the scheduled processes that are available as part of Student Management.

Approvals and Workflow

- Extract Workflow Tasks for Archive

  See *How Workflow Tasks Are Archived and Purged*

Finances

- Fee Calculation for Multiple Students

  See *Calculate Fees for Multiple Students*

  See *Manage Fee Groups*
- Generate Billing Transactions

  See *Generate Balance Forward Bills*
- Formatting Bills

  See *Print Balance Forward Bills*

- Migrate Refunds from Oracle Fusion Receivables

  See *Migrate Refunds from Oracle Fusion Cloud Receivables*

Implementation

- Load Interface File for Import

  See *Import Data into Application Tables*
- Send Date-Based Communication

  See *Create a Communication*
- Run Rapid Implementation For Higher Education

  See *Rapid Implementation for Oracle Student Management Cloud*

Learners

- Add Student Course Enrollments

  See *Add Scheduled Courses*
- Drop Student Course Enrollments

  See *Drop Scheduled Courses*
- Recalculate Student Academic Statistics

  See *Manage Student Results*

Security

- Synchronize Default Data Privileges for Custom Job Roles

  See *Assign Data Privileges*

Related Topics

- Best Practices for Scheduled Processes in Fusion Applications

Where to Find Information About Common Scheduled Processes

Here are many of the scheduled processes that are available as part of common features.

Approvals and Workflow

- Archive Transaction Console Completed Transactions
  See: *Archive and Purge Transactions*
- Create Search Index for Worklist
  See: *Set Up the Approvals Work Area*
- Employee Vacation and Delegation Rules Report
  See: *Review Employee Vacation and Delegation Rules*
- Extract Workflow Tasks for Archive
  See: *How Workflow Tasks Are Archived and Purged*
- Process Translations for Workflow Tasks Archive
  See: *How Workflow Tasks Are Archived and Purged*
- Refresh Transaction Administrator Console Transaction Status
  See: *Automatically Refresh Transaction Statuses*
- Run Reassign Pending Approvals for Terminations and Correct Invalid Supervisor Assignments Process
  See: *How You Can Regularly Reassign Pending Approvals for Workers That Become Inactive*
- Synchronize Notifications in Global Header
  See: *Synchronize Notifications in the Global Header and Home Page with Workflow Tasks*
- Upload Workflow Task Attachments for Archive
  See: *How Workflow Tasks Are Archived and Purged*

Business Intelligence

- Create Rules XML File for BI Extender Automation
  See: *Overview of the Essbase Rule File and Cubes*
- Import Oracle Fusion Data Extensions for Transactional Business Intelligence
  See: *Overview of Flexfield Change Import*

Data

- Diagnose and Synchronize Application Data
  See: *Diagnose and Synchronize Application Data*

Flexfields

- Upload Comma-Separated Value Files for Import Process
  See: *Upload Comma-Separated Values File for Import Process*

- Upload Value Set Values

  See: *Upload Value Set Values Process*

Import

- Load Interface File for Import

  See: *Load Interface File for Import Process*

Search

- ESS job to create index definition and perform initial ingest to OSCS

  See: *What do I do if I get errors about enabling the search extension framework?*

  See: *What do I do if I get errors stating that the Oracle Search Cloud Service or OSCS isn't reachable?*
- ESS job to run Bulk ingest to OSCS

  See: *Enable Search Extension Framework*
- ESS process to check Search Cloud Service availability

  See: *What do I do if the process for creating indexes keeps failing?*

  See: *What do I do if I get errors stating that the Oracle Search Cloud Service or OSCS isn't reachable?*

Security

- Import User and Role Application Security Data

  See: *Configure the Security Console*
- Import User Login History

  See: *Schedule the Import User Login History Process*
- Inactive Users Report

  See: *Inactive Users Report*
- Locked Users

  See: *View Locked Users and Unlock Users*
- Password Expiry Report

  See: *Password Expiry Report*
- Retrieve Latest LDAP Changes

  See: *Retrieve Latest LDAP Changes*
- Send User Name and Password Email Notifications

  See: *How can I notify users of their user names and passwords?*
- User and Role Access Audit Report

See: *User and Role Access Audit Report*

- User Password Changes Audit Report

  See: *User Password Changes Audit Report*

- User Role Membership Report

  See: *User Role Membership Report*

Trees

- Manage All Trees Operations Centrally

  See: *Copy, Audit, and Flatten Tree Versions Using a Scheduled Process*

Related Topics

- Best Practices for Scheduled Processes in Fusion Applications

8 Applications Core Configuration

Import Flexfields, Lookups, or Profile Values Using Web Services

You can import lookups, profile option values, and extensible flexfields into an application using the import function on the application page. Or, you can use the web service `FndManageImportExportFilesService` for the import task. The web service uses the following methods:

Loader Name	Asynchronous Method	Synchronous Methods	Supported methods for backward compatibility (without UUID)
`Flex data uploader`	`processFlexDataAsync(List<S inputFileIdTypeList, String UUID)`	`processFlexData(LIst<String String UUID)`	`processFlexDataFiles(List<Strig> inputFileIdTypeList)`
`Lookups data uploader`	`processLookupsDataAsync(lon lookupTypesFileID, long lookupCodesFileID, long viewApplicationID, String UUID)`	`processLookupsData (long lookupTypesFileID, long lookupCodesFileID, long viewApplicationID, String UUID)`	`processLookupsUploadFiles (long lookupTypesFileID, long lookupCodesFileID, long viewApplicationID)`
`User profile values uploader`	`processUserProfileValuesAsy userProfilesFileID, String UUID)`	`processUserProfileValues(lo userProfilesFileID, String UUID)`	`processUserProfileValuesFile(long userProfilesFileID)`
`Valueset Values data uploader`	`processValueSetValuesAsync( fileIdAtRepository, String UUID)`	`processValueSetValues(Long fileIdAtRepository, String UUID)`	`valueSetValuesDataLoader(Long fileIdAtRepository)`
`Generic method`	NA	`downloadProcessLogFile(Stri UUID)`	NA

Example

The following example is about importing the profile values using the web service. To import lookups or extensible flexfields, initiate the web service in the same way as shown here, after replacing the methods and other relevant values in the code.

To import profile values:

1. Perform the following substeps to generate keystore for the security policy "oracle/wss11_saml_or_username_token_with_message_protection_service_policy":
    a. Generate keystore using the command `keytool -genkeypair -keyalg RSA -alias mycompkey -keypass password -keystore mycompclient-keystore.jks -storepass password -validity 3600.`
    b. Open the WSDL using the URL `http://<host>:<port>/fndAppCoreServices/FndManageImportExportFilesService?wsdl` through a web browser, and get the public key `<wsdl:service>/<wsdl:port>/<wsa:EndpointReference>/<wsid:Identity>/<dsig:keyInfo>/<dsig:X509Data>/<dsig:X509Certificate>`. Then, enclose it with `---- BEGIN CERTIFICATE ----` and `---- END CERTIFICATE ----` and save it to a file by name **cdrmpk.cer**.
    c. Store the key information in the truststore using the command `keytool -importcert -alias cdrmkey -file cdrmpk.cer -keystore mycompclient-keystore.jks -storepass password.`
2. Open the WSDL page using the browser of your choice.
3. Export and save the associated security certificates **Verisign Class 3 Public Primary Certification Authority - G5** and **Verisign Secure Server CA - G3**.
4. Use the following command to import the saved certificates into the trust store of the client computer.

```
keytool -importcert -keystore <truststore> -storepass <truststorepassword> -file <file location where
 the mentioned certificate is stored> -alias <alias for certificate>
```

5. Run the following command to generate the JAX-WS proxy for the `FndManageImportExportFilesService` web service.

```
C:\Program Files\Java\jdk1.7.0_04\bin>wsimport -s "d:\wsimport\FndManageImportExport" -d "d:\wsimport
\FndManageImportExport" http://<host>:<port>/fndAppCoreServices/FndManageImportExportFilesService?wsdl
```

6. Save the generated code as a JAR file and name it **FndManageImportExportProxy.jar**.
7. Use the following code to create another JAR file to initiate the web service:

```
package com.oracle.xmlns.oracle.apps.fnd.applcore.webservices;

import com.sun.xml.ws.developer.WSBindingProvider;

import java.io.File;
import java.io.IOException;

import java.util.List;

import java.util.Map;

import javax.xml.ws.BindingProvider;
import javax.xml.ws.WebServiceRef;

import javax.xml.ws.handler.Handler;

import oracle.webservices.ClientConstants;

import weblogic.wsee.jws.jaxws.owsm.SecurityPoliciesFeature;
// !THE CHANGES MADE TO THIS FILE WILL BE DESTROYED IF REGENERATED!
// This source file is generated by Oracle tools
// Contents may be subject to change
// For reporting problems, use the following
// Version = Oracle WebServices (11.1.1.0.0, build 130224.1947.04102)

public class FndManageImportExportFilesServiceSoapHttpPortClient
{
 @WebServiceRef
 private static FndManageImportExportFilesService_Service fndManageImportExportFilesService_Service;
```

```
public static void main(String [] args)
{
System.setProperty("javax.net.ssl.trustStore","<location of truststore which is used in II) to import
the certificates>");
System.setProperty("javax.net.ssl.trustStorePassword", "<truststore password>");

fndManageImportExportFilesService_Service = new FndManageImportExportFilesService_Service();
SecurityPoliciesFeature securityFeatures =
new SecurityPoliciesFeature(new String[] { "oracle/
wss11_username_token_with_message_protection_client_policy",
});
FndManageImportExportFilesService
fndManageImportExportFilesService =
fndManageImportExportFilesService_Service.getFndManageImportExportFilesServiceSoapHttpPort
(securityFeatures);
// Add your code to call the required methods.


WSBindingProvider wsbp = (WSBindingProvider) fndManageImportExportFilesService;
Map<String, Object> requestContext = wsbp.getRequestContext();


requestContext.put(ClientConstants.WSSEC_KEYSTORE_TYPE,"jks");
// Provide location of 'mycompclient-keystore.jks' which was created during Step I)
requestContext.put(ClientConstants.WSSEC_KEYSTORE_LOCATION,"/home/user1/mycompclient-keystore.jks");
requestContext.put(ClientConstants.WSSEC_KEYSTORE_PASSWORD,"password");
requestContext.put(ClientConstants.WSSEC_RECIPIENT_KEY_ALIAS,"cdrmkey");

//Provide user who is having permission to initiate the service
requestContext.put(WSBindingProvider.USERNAME_PROPERTY,"<username>");
requestContext.put(WSBindingProvider.PASSWORD_PROPERTY, "<password>");


String id = invokeUploadFiletoUCMMethod(fndManageImportExportFilesService);

if (id != null) {
invokeUserProfileValuesDataLoader(fndManageImportExportFilesService, new Long(id));

}
}

static String invokeUploadFiletoUCMMethod(FndManageImportExportFilesService
fndManageImportExportFilesService) {

String response = null;
DocumentDetails document = new DocumentDetails();
ObjectFactory objfactory = new ObjectFactory();
document.setFileName(objfactory.createDocumentDetailsFileName("import_data.txt"));
// Provide UCM repository - if repository is fin/tax/import then suffix each value with $ as mentioned
here
document.setDocumentAccount(objfactory.createDocumentDetailsDocumentAccount("fin$/tax$/import$"));
document.setDocumentTitle(objfactory.createDocumentDetailsDocumentTitle("VS"));
document.setContentType(objfactory.createDocumentDetailsContentType("plain/text"));

try {

// Provide location of bulk import data file in prescribed format
byte[] content =
org.apache.commons.io.FileUtils.readFileToByteArray(new File("/home/user1/import_data.txt"));

//System.out.println("File content:" + new String(content, "UTF-8"));
document.setContent(objfactory.createDocumentDetailsContent(content));

} catch (IOException e) {
System.out.println(e.getMessage());
```

```
}
catch(Exception e) {
System.out.println("Exception: "+e.getMessage());
}

try {
response = fndManageImportExportFilesService.uploadFiletoUCM(document);
System.out.println("Response: " + response);

} catch (ServiceException e) {
System.out.println(e.getMessage());
}

return response;
}

static void invokeUserProfileValuesDataLoader(FndManageImportExportFilesService
fndManageImportExportFilesService,
Long id) {
String response;
try {
response = fndManageImportExportFilesService.processUserProfileValuesFile(id);
System.out.println("Response: " + response);
} catch (ServiceException e) {
System.out.println(e.getMessage());
}
}
}
```

> **Note:** Wherever applicable, replace the values referring to the profile values with those of the lookups or flexfields value sets.

8. Save the generated output as a JAVA file and name it **FndManageImportExportFilesServiceSoapHttpPortClient.java**.
9. Use the JAVA file to build a JAR file, and name it **FndManageImportExportClient.jar**.
10. Use the following command to run the web service:

```
java -cp ./FndManageImportExportProxy.jar:./ws.api_1.1.0.0.jar:./FndManageImportExportClient.jar
 FndManageImportExportFilesServiceSoapHttpPortClient
```

Here's a sample program that's a web service client for the asynchronous method `deployFlexAsync()`. This client program starts callback client and does the asynchronous call. The required callback web service starts at the line no 58.

```
Endpoint e = Endpoint.publish(callbackServiceAddress, new ApplicationsCoreSetupServiceResponseImpl());
```

The callback web service will still be in Running state after the client program execution completes and you need to close it manually. Or, you can also comment the previous line here and run it in a separate client program.

```
package com.ws.client;

import com.sun.xml.ws.api.addressing.AddressingVersion;
import com.sun.xml.ws.api.addressing.WSEndpointReference;
import com.sun.xml.ws.developer.WSBindingProvider;
import com.sun.xml.ws.message.StringHeader;

import com.ws.client.callback.ApplicationsCoreSetupServiceResponseImpl;
import com.ws.client.types.DeployFlexAsyncResponse;

import java.util.Map;
import java.util.UUID;

import javax.xml.ws.Endpoint;
import javax.xml.ws.Response;
```

```
import javax.xml.ws.WebServiceRef;

import oracle.webservices.ClientConstants;

import weblogic.wsee.jws.jaxws.owsm.SecurityPolicyFeature;
// !THE CHANGES MADE TO THIS FILE WILL BE DESTROYED IF REGENERATED!
// This source file is generated by Oracle tools
// Contents may be subject to change
// For reporting problems, use the following
// Version = Oracle WebServices (11.1.1.0.0, build 150302.2135.1.30348)

public class ApplicationsCoreSetupServiceSoapHttpPortClient
{
 @WebServiceRef
 private static ApplicationsCoreSetupService_Service applicationsCoreSetupService_Service;


 private static final AddressingVersion WS_ADDR_VER = AddressingVersion.W3C;

 public static void main(String [] args) throws InterruptedException {
 applicationsCoreSetupService_Service = new ApplicationsCoreSetupService_Service();
 SecurityPolicyFeature[] features = new SecurityPolicyFeature[]
 { new SecurityPolicyFeature("policy:oracle/wss_username_token_client_policy") };

 ApplicationsCoreSetupService applicationsCoreSetupService =
 applicationsCoreSetupService_Service.getApplicationsCoreSetupServiceSoapHttpPort(features);


 // Get the request context to set the outgoing addressing properties

 WSBindingProvider wsbp = (WSBindingProvider)applicationsCoreSetupService;
 Map<String, Object> requestContext = wsbp.getRequestContext();

 requestContext.put(ClientConstants.WSSEC_KEYSTORE_TYPE, "jks");
 requestContext.put(ClientConstants.WSSEC_KEYSTORE_LOCATION,
 "/scratch/vgarikip/view_storage/work/keys/mycompclient-keystore.jks");
 requestContext.put(ClientConstants.WSSEC_KEYSTORE_PASSWORD,
 "mypassword1");
 requestContext.put(ClientConstants.WSSEC_RECIPIENT_KEY_ALIAS,
 "cdrmkey");
 requestContext.put(WSBindingProvider.USERNAME_PROPERTY,
 "app_impl_consultant");
 requestContext.put(WSBindingProvider.PASSWORD_PROPERTY, "mypassword1");

 String callbackServiceAddress = "http://<server>:<port>/TestAsyncMani-Project1-context-root/
ApplicationsCoreSetupServiceResponseImplPort";
 Endpoint e = Endpoint.publish(callbackServiceAddress, new ApplicationsCoreSetupServiceResponseImpl());

 WSEndpointReference replyTo = new WSEndpointReference(callbackServiceAddress, WS_ADDR_VER);
 String uuid = "uuid:" + UUID.randomUUID();

 wsbp.setOutboundHeaders( new StringHeader(WS_ADDR_VER.messageIDTag, uuid),
 replyTo.createHeader(WS_ADDR_VER.replyToTag));

 applicationsCoreSetupService.deployFlexAsync("PER_CITIZENSHIPS_DFF", "DFF",
 false); //.deployPatchedFlexAsync(mode, pCustomizationId, pCustomizationSetLoc);



 System.out.println("####END OF WS CALL");

 Thread.sleep(10000);

 // Add your code to call the desired methods.
 }
```

```
}
```

Example callback web service start utility if you comment line no 58 in the previous program:

```
package com.ws.client;


import com.ws.client.callback.ApplicationsCoreSetupServiceResponseImpl;

import javax.xml.ws.Endpoint;


public class RunCallbackServtest {
 public RunCallbackServtest() {
 super();
 }

 public static void main(String[] args) throws InterruptedException {
 RunCallbackServtest runCallbackServtest = new RunCallbackServtest();
 runCallbackServtest.runServ();

 }

 private void runServ() throws InterruptedException {

 System.out.println("$$$$$ BEFORE Server Start ###################");
 String callbackServiceAddress = "http://<server>:<port>/TestAsyncMani-Project1-context-root/
ApplicationsCoreSetupServiceResponseImplPort";
 Endpoint e = Endpoint.publish(callbackServiceAddress, new ApplicationsCoreSetupServiceResponseImpl());

 System.out.println("$$$$$ AFTER Server Start ###################");

 }
}
```

Lookups

Overview of Lookups

Lookups are lists of values in applications. You define a list of values as a lookup type comprising a set of lookup codes, each code's translated meaning, and optionally a tag.

On the UI, users see the list of translated meanings as the values available for selection. Lookups provide a means of validation and lists of values where valid values appear on a list with no duplicate values. For example, an application might store the values Y and N in a column in a table, but when displaying those values in the user interface, Yes or No (or their translated equivalents) should be available for users to select. For example, the two lookup codes Y and N are defined in the REQUIRED_INDICATOR lookup type.

> **Note:** Don't include spaces in lookup codes. Use the underscore character (_) to separate the words if needed. For example, instead of creating the lookup code as DEV PROGRAM, create it as DEV_PROGRAM.

The following table contains an example of a lookup type for marital status (MAR_STATUS) that has lookup codes for users to specify married, single, or available legal partnerships.

Lookup Code	Meaning	Tag
M	Married	Not applicable
S	Single	Not applicable
R	Registered Partner	+NL
DP	Domestic Partner	-FR, AU

In this case, tags are used for localizing the codes. All legislations list Married and Single. Only the Dutch legislation lists Registered Partner. And all legislations except France and Australia also list Domestic Partner.

When managing lookups, you need to understand the following.

- Using lookups in applications
- Configuration levels
- Accessing lookups
- Enabling lookups
- The three kinds of lookups: standard, common, and set-enabled

Using Lookups in Applications

Use lookups to provide validation or a list of values for a user input field in a user interface.

An example of a lookup used for validation is a flexfield segment using a table-validated value set with values from a lookup type. An example of a lookup in a list of values is a profile option's available values from which users select one to set the profile option. Invoice Approval Status gives the option of including payables invoices of different approval statuses in a report. The lookup code values include All, so that users can report by all statuses: Approved, Resubmitted for approval, Pending or rejected, and Rejected.

Configuration Level

The configuration level of a lookup type determines whether the lookups in that lookup type can be edited. This applies data security to lookups.

Some lookup types are locked so no new codes and other changes can be added during implementation or later, as needed. Depending on the configuration level of a lookup type, you may be able to change the codes or their meanings. Some lookups are designated as extensible, so new lookup codes can be created during implementation, but the predefined lookup codes can't be modified. Some predefined lookup codes can be changed during implementation or later, as needed.

The configuration levels are user, extensible, and system. The following table shows the lookup management tasks permitted at each configuration level.

Permitted Task	User	Extensible	System
Deleting a lookup type	Yes	No	No
Inserting new codes	Yes	Yes	No

Permitted Task	User	Extensible	System
Updating start date, end date, and enabling the lookup code	Yes	Yes, only if the code isn't predefined data	No
Deleting codes	Yes	Yes, only if the code isn't predefined data	No
Updating tags	Yes	No	No
Updating module	Yes	No	No

Predefined data means LAST_UPDATED_BY = SEED_DATA_FROM_APPLICATION.

If a product depends on a lookup, the configuration level must be system or extensible to prevent deletion.

Once the configuration level is set for a lookup type, it can't be modified. The configuration level for newly created lookup types is by default set at the User level.

Access to the REST Resources

Users can retrieve information about lookups using the following REST resources:

- standardLookupsLOV
- commonLookupsLOV
- setEnabledLookupsLOV
- genericLookupsLOV

However, you can control whether a lookup is a part of the LOV or not. On the UI, for each lookup you can specify the **REST Access Secured** value that in turn determines whether it's included in the response or not. These values are:

- Anonymous: Lookup is available to a user having anonymous role or authenticated role.
- Authenticated: Lookup is available to a user having only the authenticated role.
- Secure: Lookups aren't available to users as part of generic REST Resources (Standard, Common, or Set-Enabled). To make it available, your security administrator must assign a specific function security policy for each lookup type to a role and assign that role to the selected users.

  > **Note:** The function security policy is provided only for predefined lookup types.

For all lookups, the default value is set to **Secure**. So, if you want to make the lookup available to users through any of those resources, you must change the value to Authenticated or Anonymous, depending on who needs to access that information.

Standard, Common, and Set-Enabled Lookups

The following table shows the available types of lookups.

Lookup Type	Description
Standard	Lists the available codes and translated meanings.
Set-enabled	Associates a reference data set with the lookup codes.
Common	Legacy lookups or lookups that have attributes.

Standard lookups are the simplest form of lookup types consisting only of codes and their translated meaning. They differ from common lookups only in being defined in the standard lookup view. Common lookups exist for reasons of backward compatibility and differ from standard lookups only in being defined in the common lookup view. These can also be lookups having attribute columns. Set-enabled lookup types store lookup codes that are enabled for reference data sharing. At runtime, a set-enabled lookup code is visible because the value of the determinant identifies a reference data set in which the lookup code is present.

Accessing Lookups

Standard, set-enabled, and common lookups are defined in the Standard, Set-enabled, and Common views, respectively. Applications development might define lookups in an application view to restrict the UI pages where they might appear.

In lookups management tasks, lookups might be associated with a module in the application taxonomy to provide criteria for narrowing a search or limiting the number of lookups accessed by a product specific task such as Manage Purchasing Lookups.

Enabling Lookups

A lookup type is reusable for attributes stored in multiple tables.

Enable lookups based on the following.

- Selecting an **Enabled** check box
- Specifying an enabled start date, end date, or both
- Specifying a reference data set determinant

If you make changes to a lookup, users must sign out and back in before the changes take effect. When defining a list of values for display rather than validation, limit the number of enabled lookup codes to a usable length.

To view the predefined lookups and their lookup codes, use the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set-Enabled Lookups

Translating Lookups

You can translate the lookups that you defined to the preferred language(s) without changing the language session of the application. Use the translation option available on the lookup code table. By default, for each lookup, all the permitted language rows in the translator dialog box appear in the source language (the current session language). When you edit a particular language entry, you can modify the translated meaning and description to the language in

which you want the lookup to appear. Once the updates are made, the end-users can view the lookup in the translated text.

Note: You can add the translation for only as many languages as are permitted by the administrator. The functionality to limit the number of languages displayed on the dialog box is controlled through the Translation Editor Languages profile option. It can be set at the SITE or USER level. If nothing is specified, all active languages are displayed.

Deleting Lookup Types and Lookup Codes

You can delete lookup types and lookup codes from the lookups management tasks in the Setup and Maintenance work area. For example, you can delete lookups that are part of the Purchasing module, from the Manage Purchasing Lookups task in the Setup and Maintenance work area. Select the required lookup type to see the lookup codes associated with it. To delete a lookup code, select the required code and click the **Delete** icon. To delete a lookup type, similarly, select the required lookup type and click the **Delete** icon.

You can also use REST resources to delete lookup types and lookup codes.

- For more information about deleting a lookup type using REST resources, see the Delete a standard lookup section in the *REST API for Common Features in Oracle Fusion Cloud Applications* guide.
- For more information about deleting a lookup type, see the Delete a lookup code section in the *REST API for Common Features in Oracle Fusion Cloud Applications* guide.

Here are a few things to know about deleting lookup types and codes:

- Certain lookup types and codes can't be deleted, for example, predefined lookup types and codes can't be deleted.
- You can't delete lookup codes in bulk. Instead, you can delete an entire lookup type.

Related Topics

- How can I access predefined lookups?
- Example of a Set-Enabled Lookup
- What's the difference between a lookup type and a value set?
- Example of a Standard Lookup
- Enter or Edit Translated Text
- Create Roles in the Security Console

Example of a Standard Lookup

Creating a new standard lookup involves creating or selecting a lookup type containing the lookup code. The task also involves determining appropriate values for the lookup codes and their meanings.

You can create or edit lookup codes only if the configuration level for that lookup type supports it.

Creating a Lookup Type Called COLORS

Your enterprise needs a list of values to be used as different statuses on a process. Each status is indicated using a color. Therefore, you create a lookup type called COLORS. The following table lists a mapping between the lookup type parameters and the actual values assigned to those parameters to create the required list of values.

Lookup type parameters	Value
Lookup type name	COLORS
Meaning	Status
Description	Status by color
Module	Oracle Fusion Middleware Extensions for Oracle Application

After you define the lookup type, you need to define the lookup codes and their related details. The following table lists the lookup codes you define for the COLORS lookup type.

Lookup Code	Meaning	Enabled	Display Sequence
BLUE	Urgent	No	4
RED	Stop	Yes	1
GREEN	Proceed	Yes	3
YELLOW	Check	Yes	2

The Resulting Data Entry List of Values

Only the enabled lookup codes appear in the list of values for the COLORS lookup type. You must select one of them to complete the activity.

The following table lists the meanings and the codes that were enabled. They appear in the order of the defined display sequence.

Meaning	Lookup Code
Stop	RED
Check	YELLOW
Proceed	GREEN

The BLUE lookup code wasn't enabled and doesn't appear in the list of values. The display sequence of values in the list of values is alphabetic, unless you enter a number manually to determine the order of appearance. Number 1 indicates the first value that appears in the list. Only lookups that are enabled and active between start and end dates are visible.

The Transaction Table

When users enter one of the values from the list of values for the lookup type COLORS, the transaction table records the lookup code. The following table contains an example, where the lookup code is stored in the Status column of the transaction table.

Transaction number	User name	Status
1	Jane	RED
2	Bob	YELLOW
3	Alice	BLUE

The status for one user is BLUE because at the time they entered a value, BLUE was enabled. Disabling a lookup code doesn't affect transaction records in which that code is stored. Data querying and reporting have access to disabled lookup codes in transaction tables.

Related Topics

- What's a lookup tag used for?
- What's the difference between a lookup type and a value set?
- Why can't I see my lookup types?
- How can I edit lookups?

Example of a Set-Enabled Lookup

Creating a new set-enabled lookup is similar to creating a standard lookup with the addition of specifying a reference data set determinant for the lookup codes.

The reference data set for a set-enabled lookup code is part of its foreign key. This is unlike other set-enabled entities. Use the Manage Set Assignments task to define and manage reference data set assignments. Note that you can create or edit lookup codes only if the configuration level for that lookup type supports it.

Selecting a Reference Group for a Set-Enabled Lookup Type

Specify a reference group for a set-enabled lookup type to indicate which reference data set assignments are available for its lookup codes. For example a COLORS lookup type might be set-enabled for a Countries reference group that includes the US and EU reference data set assignments.

Selecting a Reference Data Set for a Set-Enabled Lookup

The reference data set determines which lookup code is included in the list of values. For example, there are two references data sets - one for the US and the other for EU. If a COLORS lookup type contains RED, YELLOW, ORANGE, and GREEN lookup codes, you can enable one RED lookup code from the US reference data set and another RED lookup from the EU reference data, each lookup code having different meanings.

The following table elaborates the example, how these two reference data sets (US and EU) contain one lookup code that's common, but each differing in its lookup meaning.

Reference Data Set	Lookup Code	Lookup Meaning
US	RED	Red
US	YELLOW	Yellow
US	GREEN	Green
EU	RED	Rouge
EU	ORANGE	Orange

Some lookup codes may be unique to one or another reference data set as the ORANGE lookup is to the EU reference data set in the example.

In another example in the following table, a lookup type called HOLD_REASON provides a list of reasons for putting a contract renewal on hold. Reference data sets determine which codes are included in the Hold Reason list of values.

Reference Data Set	Lookup Code	Lookup Meaning
US	SEC	SEC Compliance Review
US	DIR	Needs Director's Approval
US	VP	Needs Vice President's Approval
CHINA	CSRC	Pending China Securities Regulatory Commission Review
CHINA	PR	Needs President's Approval
COMMON	REQUESTED	Customer Request

Referring to the example in the table, when end-users place a contract on hold in the US business unit, the three reason codes in the US set are available. When placing a contract on hold in the China business unit, the two codes in the China set are available.

Related Topics

- Example of a Standard Lookup

Import Lookups

On each page pertaining to the tasks of managing the Standard, Common, and Set Enabled lookups, use the Import option to import the lookup type and lookup code information.

Prerequisite

The separate files containing the lookup types and lookup codes are already available in the document repository of Oracle WebCenter Content.

Importing Lookups

To import lookups:

1. In the Setup and Maintenance work area, go to the Manage Standard Lookups task. Depending on the lookup you want to import, you may select the other lookup tasks.
2. In Search Results, from the Actions menu, select **Import**.

   The Import Lookups dialog box appears.
3. Select the WebCenter Content account to which the files were uploaded.
4. Enter the names of the separate files containing the lookup type and lookup code information. The names here must match with the names of the files uploaded to the selected account.
5. Click **Upload**. The lookup details are imported.

   > **Note:** If the import fails, click the link to the log file on the confirmation dialog box and examine the cause of failure.

Related Topics

- File Format for Importing Lookups
- Import Flexfields, Lookups, or Profile Values Using Web Services

File Format for Importing Lookups

You can import lookups to your application by creating separate text files containing lookup types and lookup codes. You can then upload these files to the Oracle WebCenter Content document repository.

Here are a few things that you need to keep in mind while creating these files:

- Use a vertical bar or pipe (|) as a delimiter between fields for both the header and the value rows.

- According to the Oracle WebCenter Content specification, set the file encoding to UTF-8 without the Byte Order Mark (BOM).
- The first line in the file must be a header line, and the files must look exactly the same as shown in the sample file.

The following sections contain details about the specific lookup types and codes.

Prerequisite

You must have worked with lookups in Oracle Fusion Cloud applications.

Standard and Common Lookups

The lookup types and codes are similar for standard and common lookups. To create a file containing the lookup types, include the following headers:

Header	Description	Required or Optional
`LookupType`	This value displays the lookup type.	Required
`Meaning`	This value displays the name of the lookup type.	Required
`Description`	This value displays the description of the lookup type.	Optional
`ModuleType`	This value displays the module associated with the lookup type.	Required
`ModuleKey`	This value displays the module code.	Required

Here's a sample file with the header values at the beginning of the file, followed by line entries of the two lookup types. For importing several lookup types, add more line entries in a similar format.

```
LookupType|Meaning|Description|ModuleType|ModuleKey
AFLOG_22APR_1|Log1|AFLOG_desc_1|APPLICATION|FND
PROD_22APR_2|Product1|PROD_desc_2|APPLICATION|FND
```

To create a file containing the lookup codes, include the headers specified in this table:

Header	Description	Required or Optional
`LookupType`	This value displays the lookup type.	Required
`LookupCode`	This value displays the lookup code associated with the lookup type.	Required
`DisplaySequence`	This value displays the sequence in which the lookup code appears in the list of values.	Required
`EnabledFlag`	This value lets you enable or disable the display status of the lookup code: • Y: Enable the display status of the lookup code • N: Disable the display status of the lookup code	Required

Header	Description	Required or Optional
Meaning	This value displays the name of the lookup code.	Required
StartDateActive	This value displays the beginning of the date range during which the lookup code is active and visible on the page. The format is dd/MM/yyyy.	Optional
EndDateActive	This value displays the end of the date range during which the lookup code is active and visible on the page. The format is dd/MM/yyyy.	Optional
Description	This value displays the description of the lookup code.	Optional
Tag	This value indicates any tag associated with the lookup code that you can use for a quick reference or retrieval of information.	Optional
Seg	This value displays the API name used for a global segment that you can define for the descriptive flexfield associated with the lookup.	Optional
CONTEXT_ATTRIBUTE	This value displays the context value specified in the CSV file for a particular descriptive flexfield.	Optional
ctxSeg	This value displays the name of the API for a context-sensitive segment defined for a context attribute.	Optional

Here's a sample file that contains two lookup codes:

```
LookupType|LookupCode|DisplaySequence|EnabledFlag|StartDateActive|EndDateActive|Meaning|Description|Tag|Seg|
CONTEXT_ATTRIBUTE|ctxSeg
TASK_22APR_1|Code1_1|1|Y|25/12/2014|25/5/2015|TASK_22apr_1|Task_desc_1|Tag1_1|testSeg1|TEST_CTX1|ctx1Seg1
TASK_22APR_1|Code1_2|2|N|25/1/2014|25/11/2015|TASK_22apr_2|Task_desc_2|Tag1_2|testSeg1TEST_CTX1|ctx1Seg1
TASK_22APR_2|code2_1|3|N|25/12/2012|25/7/2015|TASK_22qpr_2_1|Task_desc_2|tag2_1|testSeg2|TEST_CTX2|ctx2Seg2
TASK_22APR_2|code2_2|3|Y|25/12/2012|25/7/2015|TASK_22qpr_2_2|Task_desc_2_2|tag2_2|testSeg2|TEST_CTX2|
ctx2Seg2
```

Set Enabled Lookups

To create a file containing the set enabled lookup types, include the headers specified in this table:

Header	Description	Required or Optional
LookupType	This value displays the lookup type.	Required
Meaning	This value displays the name of the lookup type.	Required
Description	This value displays the description of the lookup type.	Optional
ModuleType	This value displays the module associated with the lookup type.	Required
ModuleKey	This value displays the module code.	Required
ReferenceGroupName	This value displays the name of the reference group that contains the reference data set.	Required

Here's a sample that contains two set enabled lookup types:

```
LookupType|Meaning|Description|ModuleType|ModuleKey|ReferenceGroupName
CODE_22APR_1|CODE_22apr_1|Code_desc_1|APPLICATION|FND|BU_APAC
CODE_22APR_2|CODE_22qpr_2|Code_desc_2|APPLICATION|FND|BU_APAC
```

To create a file containing the set enabled lookup codes, include the headers specified in this table:

Header	Description	Required or Optional
`LookupType`	This value displays the lookup type.	Required
`LookupCode`	This value displays the lookup code associated with the lookup type.	Required
`DisplaySequence`	This value displays the sequence position at which the lookup code appears in the list of values.	Required
`EnabledFlag`	This value lets you enable or disable the option to view the display: • Y: Enable the option to view the display • N: Disable the option to not view the display	Required
`Meaning`	This value displays the name of the lookup code.	Required
`SetName`	This value displays the name of the reference data set.	Required
`StartDateActive`	This value displays the beginning of the date range during which the lookup code is active and visible on the page. The format is dd/MM/yyyy.	Optional
`EndDateActive`	This value displays the end of the date range during which the lookup code is active and visible on the page. The format is dd/MM/yyyy.	Optional
`Description`	This value displays the description of the lookup code.	Optional
`Tag`	This value indicates any tag associated with the lookup code that you can use for a quick reference or retrieval of information.	Optional

Here's a sample file with the header values at the beginning and lists four set enabled lookup codes. For importing several lookup codes, add more entries in the same format.

```
LookupType|LookupCode|DisplaySequence|EnabledFlag|StartDateActive|EndDateActive|Meaning|Description|Tag|
SetName
DATA_22APR_1|Code1_1|1|Y|25/12/2014|25/5/2015|DATA_22apr_1|Data_desc_1|Tag1_1|TEST SET CODE 2
DATA_22APR_1|Code1_2|2|N|25/1/2014|25/11/2015|DATA_22apr_2|Data_desc_2|Tag1_2|TEST SET CODE 3
DATA_22APR_2|code2_1|3|N|25/12/2012|25/7/2015|DATA_22qpr_2_1|Data_desc_2|tag2_1|TEST SET CODE 2
DATA_22APR_2|code2_2|3|Y|25/12/2012|25/7/2015|DATA_22qpr_2_2|Data_desc_2_2|tag2_2|TEST SET_ERR_CODE_Z
```

Related Topics

- Overview of Files for Import and Export
- Guidelines for File Import and Export
- Overview of Lookups
- Import Lookups

FAQs for Lookups

How can I access predefined lookups?

Search for predefined lookups using any of the manage lookups tasks.

1. In the Setup and Maintenance work area, go to any of the following tasks that contains the lookups you're looking for:
    - Manage Standard Lookups
    - Manage Common Lookups
    - Manage Set-enabled Lookups
2. Enter any of the search parameters and click **Search**. If you don't know the lookup type or the meaning, use the **Module** field to filter search results.
3. Click a lookup type to view its lookup codes.

> **Tip:** Click the Query By Example icon to filter the lookup codes.

Related Topics

- Use Query By Example
- How do I update existing setup data?

How can I edit lookups?

On any of the Manage Lookups pages, you can edit the existing lookup codes of a lookup type or add new lookup codes. You can edit lookups using the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set Enabled Lookups

Each task contains a predefined set of lookup types that are classified and stored. Open a task to search and edit the required lookup. However, you may not be able to edit a lookup if its configuration level doesn't support editing.

Why can't I see my lookup types?

Lookup types are classified using tasks that involve a group of related lookups, such as Manage Geography Lookups. Each task gives you access only to certain lookup types.

However, the generic tasks provide access to all lookups types of a kind, such as common lookups associated with the Manage Common Lookups task. If the lookup types in an application are available in the standard, common, or set-

enabled lookups view, they're central to an application. However, lookup types defined for a specific application are managed using the task for that application.

What's the difference between a lookup type and a value set?

A lookup type consists of lookups that are static values in a list of values. Lookup code validation is a one to one match.

A table-validated value set may consist of values that are validated through a SQL statement, which allows the list of values to be dynamic. The following table brings out the differences between a lookup type and a value set.

> **Tip:** You can define a table-validated value set on any table, including the lookups table. Thus, you can change a lookup type into a table-validated value set that can be used in flexfields.

Area of Difference	Lookup Type	Value Set
List of values	Static	Dynamic if the list is table-validated
Validation of values	One to one match of meaning to code included in a lookup view, or through the determinant of a reference data set	Validation by format or inclusion in a table
Format type of values	char	varchar2, number, and so on
Length of value	Text string up to 30 characters	Any type of variable length from 1 to 4000
Duplication of values	Never. Values are unique.	Duplicate values allowed
Management	Both administrators and end-users manage these, except system lookups or predefined lookups at the system configuration level, which can't be modified.	Usually administrators maintain these, except some product flexfield codes, such as GL for Oracle Fusion General Ledger that the end-users maintain.

Both lookup types and value sets are used to create lists of values from which users select values.

A lookup type can't use a value from a value set. However, value sets can use standard, common, or set-enabled lookups.

What's a lookup tag used for?

A tag is an additional label attached to the lookup. Tags are user-defined and can be grouped depending on the user's requirement to make search convenient and effective.

The same tag may be used across lookup categories. In such cases, tags are used as a refined search criterion to filter information across several groups and get the search results.

> **Note:** Lookup tags are optional descriptions of attribute values. These descriptions aren't validated. In some product-specific implementations, tags are used for specific purposes. For more information, see product-specific documentation.

Related Topics

- Overview of Lookups
- Considerations for Deleting Tags from Lookup Codes

How can I search for a specific lookup code?

Use the Query By Example functionality to sort through hundreds of lookup codes for a lookup type, and display a specific lookup code.

Enter the first few characters of the lookup code value in any of the relevant fields to filter the records.

Note: The search functionality is case sensitive.

Related Topics

- How do I update existing setup data?
- Use Query By Example

Messages

Messages

Messages provide users with information about business or application errors or warnings.

Typically, messages inform the users about the following:

- Missing or incorrect data
- Status of an application, page, or a business object
- Status of an ongoing process
- Result of a user action

Besides notifying users about the problem, messages provide guidance to users on taking corrective action. Messages also warn users about the consequences of a certain action.

Oracle provides a set of predefined messages that are stored in a message dictionary. You can create additional messages or modify the existing ones using the Manage Messages task in the Setup and Maintenance work area.

Note: Don't delete predefined messages unless you're sure that they aren't used anywhere.

Message Dictionary

The message dictionary stores messages that the application requires at run time. Messages are predefined for specific applications and modules, but a few are common messages that can be used in any application or module.

When you create messages, use the message text and the following components to cover additional details addressing users and help desk personnel:

- User Details: A detailed explanation of the message short text meant for users.
- Administrator Details: Details of the identified problem meant for the help desk personnel. The end users don't see this text.
- Cause: An end-user version of the cause of error.
- User Action: Instructions to users for addressing the identified problem. Where there is no guidance for end users, they must approach the help desk.
- Administrator Action: Corrective action that help desk personnel must take to correct the problem. This information isn't available to the end users.

Related Topics

- Message Types
- Create and Edit Messages

Message Types

All messages must be associated with a message type. You can select the message type based on the message severity.

The available message types are:

- Error
- Warning
- Information
- UI String

Error Messages

Use the Error message to inform users about, for example, entering incorrect data or performing actions that trigger validation. Error messages also inform users how to correct the situation so that they can continue with their task.

For example: You can't specify a task without specifying the project.

Error messages also tell users about any serious problem with the application or process, and when they must seek assistance from the help desk. Some error messages trigger incidents or logs and have a mechanism to notify the help desk automatically.

Warning Messages

Use the Warning message type to inform users about an application condition or a situation that might require their decision before they can continue.

Warning messages:

- Describe the reason for the warning and potential consequence of the selected or intended user action.
- Can be either a question or a statement.

For example: You delete the primary user. Do you want to continue?

The message is usually followed by Yes and No buttons.

Information Messages

The Information message type tells users about changes in the application, a page, or a business object. These messages aren't triggered by users, and they don't have to take any immediate action in response.

For example: No events have been started or processed for this employee.

Use the Information message type to communicate information that's neither an error nor a warning.

UI String Messages

Use the UI string message type to store shorter messages such as UI prompts, titles, or translated text, in the message dictionary.

Related Topics

- Message Groups

Message Groups

You can group messages by severity to internally define logging and classifying incident policies. You can group by category based on the functionality or program.

Category and severity values don't appear in logging entries, incidents, or on the UI.

> **Note:** The values in both options are predefined lookups but you can modify them. However, the maximum size of this field is 30 characters.

To group the messages, in the Setup and Maintenance work area, use the **Manage Messages** task.

Group by Category

Use this option to group messages that relate to one functionality, such as a scheduled process, together into one category. Select one of the predefined categories to enable automatic incident creation when the error message activates. By default, the following categories are available:

- **Product**: Issues related to product functionality, setup, and maintenance. Such messages are typically intended for functional administrators or product super users.
- **System**: Issues concerning the application, database, technology stack, and so on. Such messages are typically intended for technical users such as application administrators or database administrators.
- **Security**: Issues concerning permissions, access, compliance, passwords, and so on. Such messages are typically intended for security administrators.

Group by Severity

This grouping attribute is very specific and indicates the severity of the message. You must set the severity to High to enable automatic incident creation for the message. The following are predefined values, but you can add more if required.

- **High**: Used for serious messages that completely stop the progress of an important business process or affect a large user community, and require help desk's attention. Use this option to enable implicit incident creation for the message.
- **Medium**: Used for less severe and more isolated messages.
- **Low**: Used when you can't determine whether the message has a negative impact on end users or business processes.

Logging and Incidents

Select the **Logging Enabled** check box to include the UI message in the stored log file. To enable automatic incident creation when the error message appears on the UI, set the severity to High.

Incidents collect information about the application errors for which users may require assistance from help desk. An incident contains information about the state of the application at the time the problem occurred. Help desk can use the information in the incidents to resolve the problems.

Related Topics

- Overview of Lookups
- What's an incident?
- Run Diagnostic Tests
- Run Diagnostic Tests to Verify, Troubleshoot, and Analyze

Create and Edit Messages

You can create messages or edit the predefined messages stored in the message dictionary.

Creating a Message

To create a message, perform the following steps:

1. In the Setup and Maintenance work area, go to the **Manage Messages** task.
2. On the Manage Messages page, click the **New** icon.
3. On the Create Message page, enter details in each section.

4. In the Message Properties section, do these.
    a. Enter a unique message name that helps you find the messages you create and avoid name conflicts with predefined messages. Use underscore as a separator if the name contains multiple parts.
    b. Select the application and module to associate the message with.
    c. Enter a unique number that can be used as an identifier for the message. Users can quote this number when they contact the help desk for assistance.

        > **Note:** You can use any number between 10,000,000 and 10,999,999. This number range is allocated for the messages you create. At runtime, this number appears along with the application code after the message text, for example FND-2774.

    d. In the Translation Notes field, enter a description of the message indicating its use.
    e. Select the relevant message type, category, and severity.
    f. Select the **Logging Enabled** check box to create incidents or logs when messages appear on the UI.
5. In the Message Text section, do these.
    a. In the Short Text field, provide the actual message text that appears on the page at runtime.

        The short text can include tokens that are placeholders for displaying dynamic values at runtime. However, to support easy translation, keep the message length (including values of tokens) within 160 characters in American English.
    b. In the User Details field, enter information for the users to know why the message appeared. You can also include information for the users to resolve the issue themselves.

        If your Short Text component has tokens that expand the text beyond the 160-character limit, move that portion of text here.
    c. In the Administrator Details field, provide a detailed technical explanation of the message. This field is only visible to the help desk.
    d. In the Cause field, provide a concise explanation of why the message appears. This text is visible to the users.

        This information is optional and is only applicable to messages of type Error and Warning. However, if you mention the cause, you must mention in the User Action field the action that users must take.
    e. In the User Action field, enter the user action to guide the users with steps to respond to the message and complete the task.
    f. In the Administrator Action field, provide information that the help desk can use to resolve the problem.
6. In the Message Tokens section, define tokens that you want to use in this message.
7. Click **Save and Close**.

Editing a Message

You can edit a predefined message or a message that you created.

To edit a message, search for a message on the Manage Messages page and perform the following steps:

1. Select the existing message and click the **Edit** icon.
2. On the Edit Message page, modify the existing details according to the instructions provided in the Creating a Message procedure.

    > **Note:** Don't edit the message number for predefined messages.

3. Click **Save and Close**.

While creating and editing messages, you can translate the message details to the preferred languages without changing the language session of the application. To specify the translations in all the enabled language rows, use the Translation Editor option. Once the updates are made, users can view the translated text for the specific details.

Related Topics

- Message Types
- Message Groups
- Use of Tokens in Messages
- How can I make message components visible only to specific users?
- Enter or Edit Translated Text

Use of Tokens in Messages

Certain messages must display variable information at run time to help users clearly relate to the actual data and perform the required action.

Instead of writing a unique message for every possible situation, you can use tokens to display the variable values at run time.

Tokens are programmatic parts of message text that are placed within curly brackets when creating the message. Tokens serve as placeholders for the actual data. At run time, tokens dynamically display the actual text or value in the message, making a message specific to the situation. For example, the message "Enter an effective date that's the same as or later than `{MATURITY_DATE}`" contains the token `{MATURITY_DATE}`. At run time, instead of the token, the represented value (the actual date) appears. Thus, users see the message "Enter an effective date that's the same as or later than 25-APR-2015".

Use the Manage Messages task in the Setup and Maintenance work area to create and manage tokens. You must edit a message to define tokens for it. You can create tokens for a message and also delete them. However, you can't edit or delete the predefined tokens.

Token Definition

To define a token, you must provide the following information:

- A unique name for the token.
- The type of data that the token replaces at run time. Available types are Date, Number, or Text.
- A description about what the token represents at run time.

Guidelines

Follow these general guidelines while defining tokens:

- Use curly brackets and all uppercase letters for the token names.
- Use underscore as a separator for a name containing two words or more.
- Don't use a space between words.

The following table contains specific guidelines for each token data type.

Data Type	Guideline
Text	Use tokens for substituting any variable text element that qualifies as a noun.
Number	Plan carefully while using tokens for numbers especially, where a token could refer to either a singular or a plural number. You can use tokens for numbers representing an order, customer, or any other business object bearing a numeric value.
Date	Clearly define the context of the date, such as the start date, or end date, or a date range.

Common Messages

Message names that begin with FND_CMN are common messages. Each common message can appear in multiple places in any product family across Oracle Applications Cloud.

For example, the FND_CMN_NEW_SRCH message can be used for any search to indicate that no results were found. Common messages of type error or warning are part of the message dictionary.

Creating and Editing Common Messages

You can create common messages for use in multiple places. However, ensure that you follow the predefined naming convention and numbering series associated with the application or module.

> **Note:** Don't use FND_CMN as the prefix for the messages you create because all the predefined common messages begin with it.

Common messages can be used in any application. Therefore, consider the ramifications if you edit any aspect of the message, including incident and logging settings. Changes would be reflected in all instances where the message is used. For example, if you change the message text, ensure that the text is generic and applies to the entire site of Oracle Applications Cloud implementation.

How can I make message components visible only to specific users?

Use the Manage Administrator Profile Values task to determine the visibility of the message components. For the Message Mode profile option, set the profile value to either User or Administrator.

Based on the set value, the administrator or user actions and details appear for the intended audience.

However, the message components are visible to the audience based on their predefined access rights. Anyone having a user level access can't view the Administrator message components. If you set the profile value to the administrators of a specific product, the message components are visible only to that specific audience.

> **Note:** If you don't set any value to the profile option, the visibility of the message component is determined by the default profile option settings.

Related Topics

- Set Profile Option Values

Document Sequences

Document Sequences

You can assign a document sequence number to each business document or business event to uniquely identify it. For example, you can assign a document sequence number to an invoice that gets generated in response to a purchase order.

However, you must enable the document sequencing option for that business document or event to start assigning the number. A document sequence number is useful in tracking completed or failed transactions.

You can set up document sequencing in three different modes:

- Automatic
- Manual
- Gapless

Note: Plan your document sequencing carefully before you start applying sequence numbers. Avoid switching to a different mode after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

Automatic Sequencing

Automatic document sequencing assigns a unique number to each document automatically when the document is generated. That unique number is stored in the database. You can set an initial value for the numbering sequence. Thereafter, the numbering is sequential by date and time of creation. If you don't provide an initial value, the application sets the default initial value as 1.

However, you might notice gaps in the numbering sequence because automatic sequencing isn’t gapless.

Manual Sequencing

Use the manual sequencing mode to assign a unique number to each document before the document is generated. In manual sequencing, the numeric ordering and completeness of a transaction isn't automatically enforced. As a result, users can skip or omit numbers when entering the sequence value. However, each time a user assigns a number, the application validates its uniqueness.

Gapless Sequencing

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. Sequence numbers aren't assigned to incomplete or failed documents. As a result, the sequence is maintained for all the successfully generated documents.

Additionally, you can control the gapless document sequencing by enforcing the Transaction Date Validation option. When enabled, this option checks for the transaction date of a particular document and assigns the sequence number

accordingly, to chronologically maintain the documents. The sequence numbers and the transaction dates are chronologically correlated to prevent any mismatch of a new document sequence assigned to an older document or an older document sequence assigned to a new document.

> **Note:** Use this type of sequencing only if necessary because it may affect the performance of the application and slow down transaction processing.

Related Topics

- Modules in Application Taxonomy
- Guidelines for Managing Document Sequences

Document Sequence Categories

A document sequence category is a set of documents that share similar characteristics and that are formed into a logical group. Document sequence categories simplify the task of assigning number sequences to specific documents.

Instead of assigning a number to each document, you assign a document sequence to one or more document sequence categories. The document sequence category automatically takes care of numbering the documents.

A document sequence category identifies the database table that stores documents resulting from transactions that your users enter. When you assign a sequence to a category, the sequence numbers the documents that are stored in a particular table. You must create document sequence categories to be able to manage the task of assigning document sequences.

> **Note:** Once a document sequence category is created, you can't change the application, the category code, or the table name. Therefore, carefully consider these details and plan your document sequencing requirement before you begin working with the application.

Once you create a document sequence category, it's available for use in the **Document Sequences: Assignments** section on the Manage Document Sequences page. The **Category** field contains the name of the document sequence category. After you create a document sequence, you can assign it to a document sequence category.

Guidelines for Managing Document Sequences

Sequencing documents is an important business and legal requirement. Therefore, you must first decide the appropriate document sequence to use for a set of documents. Before you begin, here are a few prerequisites:

- Determine beforehand the mode of document sequencing, because you can't switch to other types once a sequence is in use.
- Note details such as the document sequence and document sequence category, for later reference.
- Identify if there are any restrictions or configuration prerequisites.

> **Note:** Products that implement document sequencing have specifications about its usage. See the corresponding product documentation for specific details and also to identify if there are any restrictions or configuration prerequisites.

Creating and Editing Document Sequences

You can create document sequences that are automatic, manual, or gapless, depending on the business or legal requirement. By default, the current date is considered as the start date. The sequence definition never expires if you don't provide an end date. Among the several options used in creating and editing document sequences, the following options are functionally more important and therefore must be carefully identified:

- **Determinant Type**: Select to limit the document sequencing activity to certain documents that belong to a specific business entity, such as Ledger, Tax Registration, and so on.
- **Initial Value**: Enter a value for the first document in your sequence. This field applies only to sequences with automatic or gapless numbering types. Sequence numbers must not be more than 11 digits. If you leave this field blank, the first document is automatically assigned a value of 1. Once a document sequence is defined, you can't change this initial value.

> **Note:** The **Display Message?** checkbox is deprecated. However, it might be visible on the page, to support legacy values.

Creating and Editing Document Sequence Categories

Document sequence categories are defined to make it easy to assign document sequence definitions to a group of documents instead of to individual documents. Each document sequence category is mapped to a specific table, where the documents belonging to that category are stored. When specifying the table, you must consider the following points:

- When the sequential numbering feature checks for completeness or generates a report, it finds the category's documents in the table.
- Select only those tables that belong to the application associated with the category.
- Once a category is defined, you can't switch to another table.

Assigning Document Sequences

Identify the documents to be numbered before assigning them a document sequence. For each document sequence, there can be only one active assignment to a document sequence category, and a determinant value (if applicable). As part of the assignment, specify whether the document is created automatically (for example, due to a batch process, or manually through a form). If you don't specify an end date, the assignment continues to remain active throughout the process cycle. If a determinant type was specified for the document sequence, then enter a specific determinant value related to the determinant type.

At runtime, when users create documents, the document sequence to be assigned is decided based on the following:

- An active assignment that matches the correct combination of category
- The numbering method
- The date range containing the transaction date

Auditing Document Sequences

You can audit document sequences, if required, to provide an audit trail of the document sequences used in a specific product. However, before enabling the audit functionality for a document sequence, you must have created an audit table for the specific document sequence, using appropriate details. Enabling the audit functionality is allowed only for newly created document sequences. You can't audit document sequences that are already in use by a specific product.

Related Topics

- Guidelines for Managing Modules in Application Taxonomy

Profile Options

Overview of Profile Options

Profile options are a set of preferences that you use to centrally manage the user interface settings and application behavior.

You can use the profile options to manage, for example:

- User preferences to specify language or currency.
- Configuration choices to change the user interface skin or appearance of fonts.
- Processing options to determine how much of an activity needs to be logged and at which level.

In the Setup and Maintenance work area, go to these tasks:

- Manage Profile Options
- Manage Profile Categories
- Manage Administrator Profile Values

This table explains what each task is used for.

Task	Purpose
Manage Profile Options	Create new profile options or modify existing profile options, except some which are predefined and restricted to prevent any modifications.
Manage Profile Categories	Group the profile options based on their functional similarities.
Manage Administrator Profile Values	Set the profile values for the enabled profile options to control application behavior.

Related Topics

- Create and Edit Profile Options
- Set Profile Option Values
- Profile Categories
- How can I access predefined profile options?

Hierarchy in Profile Levels

The hierarchy in profile levels determines the context for making a profile option effective.

You can enable a profile option at the following levels:

- Site level (lowest): The entire site of deployment
- User level (highest): A specific user

After you create or edit a profile option on the Manage Profile Options page, you must enable it. You can enable it at multiple levels. The setting at the highest enabled level takes precedence over the lower levels. User level is the highest in the hierarchy and always takes precedence over the settings at the site level.

On the Manage Administrative Profile Values page, set the profile value at any of the enabled levels of the profile option.

Example of Profile Option Hierarchy

The following table shows an example of setting the currency profile option at different levels.

Profile Level	Hierarchy	Currency
Site	Lowest	Euro
User	Highest	US Dollar

For this example, there are two users, John and Lisa. For John, the user-level profile value currency is set to US Dollar. If the Currency profile option is enabled only at the site level, both John and Lisa would see Euro as the default currency. If the profile option is enabled at the user level, users having a different currency set as their currency profile value would see only that currency. In this case, John would see US Dollar as the default currency. If the Currency profile option is enabled at the user level and there is no user level currency defined, the site level setting takes effect. When both site and user levels are enabled, the value for the user level takes precedence over the site level value.

Set Profile Option Values

Each profile option contains specific values that determine how it affects the application. You can add or modify the values for each profile option.

Select or enter the value for one or more of the available levels (site, product, and user) so that each setting takes effect at the intended level.

Setting the Profile Value

1. In the Setup and Maintenance work area, go to the profile option task that correlates to the product or functionality of the profile option you want to set. If needed, use the **Manage Administrator Profile Values** task, which provides access to all profile options.
2. Search for and select the profile option.

3. In the Profile Values section, select or enter a value in the **Profile Value** column for any default row with a predefined Site level.
4. If there isn't any row, or if you need more rows, click the **New** icon.
    - Profile Level: Specify the level at which the profile value is to be set. If the profile value applies to the entire site, select **Site**. Otherwise, select **User.**

      Note:
      - Don't select **Site** if a row for the Site level already exists. There can only be one row for the Site level, but you can have multiple rows for the User level.
      - The **Product** level is deprecated and can no longer be used. However, it might be visible in the list to support legacy profile values.

    - User Name: If you select **User** as the profile level, select the user name and specify the associated profile value.
    - Profile Value: Select or enter the value corresponding to the selected profile level. For an existing entry, you can modify only the profile value.
5. Click **Save and Close**. Changes in the profile values affect users the next time they sign in.

Import Profile Values

Use the Import option on the Manage Administrator Profile Values page to import profile values in bulk and associate them with a profile option.

Before you begin, make sure that the file containing the profile values is available in the document repository of Oracle WebCenter Content.

1. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task.
2. In the Search: Profile Options section, search for the profile option for which you want to import the values.
3. In the Search Results: Profile Options section, select the profile option.
4. In the <Profile Option>: Profile Values section, click **Actions** > **Import**.
5. On the Import User Profile Values window, select the WebCenter Content account to which the file was uploaded.
6. Enter the name of the file containing the profile values. The name here must match with the name of the file uploaded to the selected account.
7. Click **Upload**. The profile values are imported.

    Note: If the import fails, click the link to the log file on the confirmation dialog box and examine the cause of failure.

Related Topics

- File Format for Importing Profile Values
- Import Flexfields, Lookups, or Profile Values Using Web Services
- How can I bulk update user preferences?
- Overview of Files for Import and Export

File Format for Importing Profile Values

You can import profile option values to your application by creating separate text files containing values. You can then upload these files to the Oracle WebCenter Content document repository.

Here are a few things that you need to keep in mind while creating these files:

- Use a vertical bar or pipe (|) as a delimiter between fields for both the header and the value rows.
- According to the Oracle WebCenter Content specification, set the file encoding to UTF-8 without the Byte Order Mark (BOM).
- The first line in the file must be a header line, and the files must look exactly the same as shown in the sample file.

To create a file containing the profile values, include the headers specified in this table:

Header	Description
`ProfileOptionCode`	This value displays the profile option code.
`LevelName`	This value displays the level name of the profile. It must be one of these level names: • `Site` • `Product` • `User`
`UserName`	This value must correspond to the registered user name in the application. Don't provide any other shortened or coded name of the user.
`ProfileOptionValue`	This value displays the profile value that you can import.

Here's a sample file with the header values at the beginning of the file, followed by line entries of the two profile values. For importing several profile values, add more line entries in a similar format.

```
ProfileOptionCode|LevelName|UserName|ProfileOptionValue
AFLOG_BUFFER_MODE|USER|APP_IMPL_CONSULTANT|TEST
AFLOG_LEVEL|USER|APPLICATION_DEVELOPER|FINEST
```

Related Topics

- Overview of Files for Import and Export
- Guidelines for File Import and Export
- Overview of Profile Options
- Import Profile Values

Create and Edit Profile Options

Use profile options to manage user preferences and control the general function of applications. For example, you can control user preferences involving language, date, time, currency, and other similar general settings.

You can create a profile option and also determine the level at which that profile option takes effect. You can also define the profile values for the profile option. The profile values appear on the Manage Administrator Profile Values page when you select the profile option.

Creating a Profile Option

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
2. On the page, click **Actions** > **New**.
3. On the Create Profile Option page, fill all the fields with relevant details with specific attention to the following:
    - Use the SQL Validation field to provide an SQL statement that displays the permissible profile values to be used. Using an SQL statement, you can select the values from another table and display them as a list of values.

      For example, to display the values **Yes** and **No** from a lookup table, you can use the following SQL statement:

      ```
      select MEANING, LOOKUP_CODE from FND_LOOKUPS where LOOKUP_TYPE='YES_NO'
      ```

      As a result, on the **Manage Administrator Profile Values** page, the profile values Yes and No are available for selection for that profile option.
    - You can specify a date range to keep the profile option active during that period. Beyond the specified duration, the profile option automatically becomes inactive. If you no longer require the profile option, you must manually delete it from the **Manage Profile Options** page.
4. Click **Save and Close**.
5. On the Manage Profile Options page, search for the newly created profile option and from the results, select it.
6. In the Profile Option Levels section, do the following:
    a. In **Enabled**, select the levels at which you want to enable the profile option.

       > **Note:** You can enable a profile option at multiple levels, but a higher-level profile value overrides a lower-level value. Therefore, enable them only at the required levels.

    b. In **Updatable**, select the profile level at which you want implementors to have update privileges. Leave the check box deselected if you don't want the implementors to modify the profile values (they appear in read-only mode).
7. Click **Save and Close**.

To edit a profile option that you created, search for it and edit the necessary details.

> **Note:**
> - While creating and editing profile options and profile categories, you can translate the details to the preferred languages without changing the language session of the application. To specify the translations in all the enabled language rows, use the Translation Editor option. Once the updates are made, users can view the translated text for the specific details.
> - If you want to access the profile option using REST API, you must add it to the Authenticated User Profile Option Values (`ORA_FND_AUTH_REST_ACCESS`) profile category.

Related Topics

- Hierarchy in Profile Levels
- Set Profile Option Values
- Profile Categories
- Enter or Edit Translated Text

Profile Categories

You can create profile categories to group profile options based on their functional similarities and their use. In the Setup and Maintenance work area, use the Manage Profile Categories task.

Profile categories help administrators or implementors in retrieving profile options using a search criterion on the Manage Administrator Profile Values page.

Managing Profile Categories

Consider the following options while managing profile categories:

- Create profile categories and add existing profile options to them
- Add newly created profile options to existing user-defined profile categories

Note: While you can add a profile option to more than one category, some profile categories are predefined and restricted from any modifications. So, you can't edit them or add profile options to them.

Setting Display Sequence for the Profile Options

You must set the display sequence for each profile option that you add to a profile category. Display sequence determines the order in which the profile options appear in a search result, based on the profile category. You can set the sequence beginning with zero or one for the first profile option to display, and proceed sequentially to assign the values to the remaining profile options.

The following table demonstrates the effect of the display sequence on the profile options when they're retrieved as search results.

Profile Category	Included Profile Option - Assigned Display Sequence	Display Sequence of Profile Options in the Search Results
Attachments	• Attachment File Directory - 2 • Indicate Attachments - 1	1. Indicate Attachments 2. Attachment File Directory

Related Topics

- Set Profile Option Values

FAQs for Profile Options

How can I access predefined profile options?

Search for predefined profile options using the Manage Profile Options task.

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
2. On the page, enter any of the search parameters and click **Search**. Search functionality is case-sensitive.

   > **Tip:** If you don't know the profile option code or the display name, use the **Application** or **Module** fields to filter search results.

3. In the results, click a profile option to view its details.

How can I bulk update user preferences?

User preferences such as Language, Date Format, Time Zone are stored as profile options. You can use the import option on the Manage Administrator Profile Values task to bulk import these profile options and apply them to the user's profile.

Here are the profile options that affect user preferences, and can be imported using a text file:

- Default Currency (FND_CURRENCY)
- Default Date Format (FND_DATE_FORMAT)
- Default Decimal Separator (FND_DECIMAL_SEPARATOR)
- Display Name Language Preference (FND_DISPLAY_NAME_LANGUAGE)
- Default Language (FND_LANGUAGE)
- Default Number Format (FND_NUMBER_FORMAT)
- Default Time Format (FND_TIME_FORMAT)
- Default User Time Zone (FND_TIMEZONE)
- Default Territory (FND_TERRITORY)

Before you begin, you must prepare the text file in the prescribed format, where the top row is the header and the rest are values for the profile option. For example, if you're importing profile values for territories, create the text file in the format:

```
ProfileOptionCode|LevelName|UserName|ProfileOptionValue
FND_TERRITORY|USER|john.doe@oracle.com|France
```

You must have uploaded the text file to Oracle WebCenter Content so that you can import it. For instructions on uploading the file, see Overview of Files for Import and Export. For instructions on importing the file contents, see Import Profile Values.

Related Topics

- Overview of Files for Import and Export
- Import Profile Values

Flexfields

Overview of Flexfields

A flexfield is a set of placeholder fields associated with business objects and placed on the application pages to contain additional data.

You can use flexfields to modify the business objects and meet enterprise data management requirements without changing the data model or performing any database programming. Using flexfields, you can capture different data on the same database table and modify the application features. For example, airline manufacturers may require specific attributes for orders that aren't predefined. Using a flexfield for the order business object, they can create and configure the required attribute.

When you first define your flexfields, you choose how many segments you want to use and what order you want them to appear in. You also choose how you want to validate each of your segments. The decisions you make affect how you define your value sets. When your user enters a value, your value sets validate that value. The value sets can be one of these types:

- List of valid values that aren't stored in any application table.
- Table-validated value sets that use a predefined list of values stored in an application table.
- Format only value sets that use any value as long as it conforms to your specified formatting rules. For example, the value must not exceed the maximum length you define for your value set.

You can assign a value set to a flexfield segment to define the valid values in that segment. While defining valid values in a segment, either reuse an existing value set or define a new value set. You can reuse a value set as often as you want across multiple flexfields or different segments within the same flexfield.

Flexfield Types

Here are the types of flexfields:

- Descriptive flexfields
- Extensible Flexfields
- Key Flexfields

Both extensible and descriptive flexfields provide an expansion space that you can use to configure additional attributes without additional programming. Descriptive flexfields are stored in additional columns on the same table as that of the object, whereas extensible flexfields are stored in a separate extension table.

Key flexfields consist of one or more segments, where each segment can have a meaning. You can use key flexfields to enter multipart values, such as a part number, a job code, or an account code. Users see the flexfields as fields or attributes on UI pages. To manage the flexfields, use any of these tasks in the Setup and Maintenance work area:

- **Manage Descriptive Flexfields**: To configure descriptive flexfield segments if you have enabled descriptive flexfields on a page.
- **Manage Extensible Flexfields**: To configure extensible flexfield segments if you have enabled extensible flexfields on a page.
- **Manage Key Flexfields**: To configure key flexfields, which is a configurable multipart key.

- **Manage Value Sets**: To create reusable value sets to validate values in flexfield segments.

> **Note:** You can manage value sets within the **Manage Descriptive Flexfields** or **Manage Extensible Flexfields** tasks.

Related Topics

- How can I access predefined flexfields?
- Overview of Descriptive Flexfields
- Overview of Extensible Flexfields
- Overview of Key Flexfields
- Overview of Value Sets

Flexfield Components

A flexfield is made up of several data entities that store and render information pertaining to flexfield configuration.

Flexfields are made up of the following components:

- Segments
- Value Sets
- Contexts
- Structures

Segments

A segment is a field within a flexfield and represents a single table column of your database. When configuring a flexfield, define the appearance and meaning of individual segments. Segments represent attributes of information. Segments can appear globally wherever the flexfield is implemented, or based on a structure or context. Each segment captures a single atomic value and represents an attribute of information.

The characteristics of a segment vary based on the type of flexfield in which it's used.

- In key flexfields, a segment describes a characteristic of the entity. For example, a part number that contains details about the type, color, and size of an item.
- In a descriptive or extensible flexfield, a segment represents an information attribute on the application page. For example, details about a device containing components, some of which are global while the remaining are contextually dependent on the category of the device.

Value Sets

Users enter values into segments while using an application. A value set is a named group of values that validate the content of a flexfield segment. You configure a flexfield segment with a value set to enforce entries of only valid values for that segment.

The configuration involves the following tasks:

- Defining the values in a value set, including characteristics such as the length and format of the values.

- Specifying formatting rules or values from an application table or predefined list.

Multiple segments within a flexfield, or multiple flexfields, can share a single value set.

Contexts

Context-sensitive flexfield segments are available to an application based on a context value. You define contexts as part of configuring a flexfield. Users see global segments as well as any context-sensitive segments that apply to the selected context value.

In descriptive flexfields and extensible flexfields, you can reuse the context-sensitive segments that are based on the database columns, in multiple contexts.

Structures

Key flexfields have structures. Each key flexfield structure is a specific configuration of segments. Adding or removing segments, or rearranging their order, produces a different structure. You can reuse the segments that are based on the database columns, in multiple structures.

> **Note:** You can translate all these flexfield components to the preferred languages without changing the language session of the application. To specify the translations in all the enabled language rows, use the Translation Editor option on the respective edit pages. Once the updates are made, users can view the translated text for the specific flexfield components.

Related Topics

- How Flexfields Work with Oracle Application Cloud Architecture
- Overview of Value Sets
- Enter or Edit Translated Text

Overview of Flexfield Configuration

Configuring a flexfield involves identifying the need for enhancing a business object with user-defined attributes and then integrating the attributes into deployment. In the case of key flexfields, configuring the flexfield involves identifying value set assignments and determining segment structures.

Overall Process for Configuring User-Defined Attributes

Before using flexfields to create attributes, familiarize yourself with the context layers and the configuration life cycle of the application. You can add attributes to a business object using a flexfield, if developers have registered that object to a flexfield. For descriptive and extensible flexfields, the overall configuration process involves the following:

1. Use the Highlight Flexfields feature from the Administration menu to find flexfields on pages associated with business objects.
2. Plan the flexfield configuration.
3. Plan flexfield validation.
4. Define the attributes by configuring the flexfield segments.
    a. Use the Manage Extensible Flexfields or Manage Descriptive Flexfields tasks, or use the **Configure Flexfield** icon button directly on the page where the flexfield is highlighted. For simple configurations,

use the **Add Segment**, **Add Context Value**, and **Edit Segment** icon buttons directly on the page where the flexfield is highlighted.

b. Optionally, validate the flexfield configuration.
c. Optionally, deploy the flexfield to a sandbox for initial testing.

5. Deploy the extensible flexfields changes to the mainline metadata, to display the attributes on the application pages and to make them available for integration with other tools such as Oracle Transactional Business Intelligence. But for descriptive flexfields, you must deploy your changes to a sandbox and test the changes before publishing your sandbox. To deploy your descriptive flexfield to a sandbox:

a. Create or activate a sandbox, and select **Flexfields** from the list of tools.
b. In the Setup and Maintenance work area, go to the **Manage Descriptive Flexfields** task.
c. Open the flexfield you want to edit, and make your changes.
d. On the **Actions** menu, select **Deploy Flexfield to Sandbox**.
e. Click **Yes** to continue with the deployment.

6. Perform the necessary steps to integrate the attributes into the technology stack.

A simple configuration is limited to such actions as adding a format-only field or adding a field with a basic list of values.

Overall Process for Configuring User-Defined Keys

Using key flexfields, you can configure intelligent key codes containing meaningful parts according to your business practices. You configure the key flexfield to have one segment for each part that makes up your key code.

For key flexfields, the overall configuration process involves the following:

1. Use the Highlight Flexfields feature from the Administration menu to find flexfields on pages associated with business objects.
2. Plan the flexfield configuration.
3. Plan the flexfield validation.
4. Define the value sets before configuring the key flexfield segments by going to the Manage Value Sets task.
5. Define the key flexfield structures and their segments, and define structure instances for each structure.

a. Use the Manage Key Flexfields task or the **Configure Flexfield** icon button directly on the page where the flexfield is highlighted.
b. Optionally, validate the flexfield configuration.
c. Optionally, deploy the flexfield to a sandbox for initial testing.

6. Deploy the key flexfield changes to the mainline metadata to display it on the application pages and to make it available for integration with other tools such as Oracle Transactional Business Intelligence.

> **Note:** You can't deploy your changes in value sets, key flexfields, and extensible flexfields to your sandbox. You must deploy them directly to the mainline environment. However, if you're making changes to any descriptive flexfields, you must deploy your flexfield to the sandbox and test your changes before publishing your sandbox.

7. Perform the necessary steps to integrate the flexfield into the technology stack.

Related Topics

- Overview of Extensible Flexfields
- Considerations for Managing Flexfields
- Overview of Key Flexfields
- Overview of Context Layers
- Configuration Life Cycle

Flexfields at Runtime

Business objects have an associated descriptive or extensible flexfield. Using these, you can create attributes for the business object at run time. Some business objects have an associated key flexfield for configuring flexible multiple part keys.

Finding Flexfields on a Page

At run time, the attributes you define as flexfield segments appear in the application page just like any other attribute. However, each type of flexfield appears in a different way.

The following characteristics help you determine the type of flexfield on the application page:

- Descriptive flexfield segments appear as label and field pairs or as a table of fields that correspond to the column headers. The fields represent the flexfield segments and accept values that derive from the segment's assigned value set.
- Extensible flexfield segments appear grouped within labeled regions, where each grouping is a context and the region labels are the context names.
- Key flexfields appear in the application page as a field with a key flexfield icon, where the field's value is a collection of segments.

You can locate flexfields on a page using the **Settings and Actions** menu. Click your user image or name in the global header to open this menu, and select **Highlight Flexfields** to locate flexfields on a page. The page renders in a special mode, displaying the location of flexfields, if any, on the page. Do the following:

- Hover over the **Basic Info** icon to view flexfield details.
- Click the **Configure Flexfield** icon to manage the flexfield using the Manage Flexfields task.
- Click the **Add Context Value**, **Add Segment**, or **Edit Segment** icons to add a context value or edit a global or context-sensitive flexfield segment. This applies to both descriptive and extensible flexfields.

> **Note:** You can't create attributes on all flexfields. For example, some flexfields are protected, and you either can't edit their configurations at all, or can do only limited changes to them. Consult the product-specific documentation to verify whether there are any restrictions on using the flexfield.

All segments of a single flexfield are grouped together by default. The layout and positions of the flexfield segments depend on where the application developer places the flexfield on the page. Flexfields may also be presented in a separate section of the page, in a table, or on their own page or a dialog box. You can use the Application Composer tool to edit the layout, position, or other display features of the flexfield segments.

When you no longer want to view the flexfields on a page, select **Unhighlight Flexfields** from the Administration menu.

Related Topics

- Modify Flexfields Using Page Composer

Modify Flexfields Using Page Composer

You can use Page Composer to modify flexfields specific to a page.

Extensible Flexfield Modification

In Page Composer, open the page with the flexfield you want to modify. By default, you get the Design view to modify pages. But for this page, you must use the Source view. Set the **Source View for Page Composer Enabled** profile option (FND_PAGE_COMPOSER_SOURCE_VIEW) to **Yes** so that the View menu is available for you to switch between the two views. You can find the profile option in the **Manage Administrator Profile Values** task In the Setup and Maintenance work area.

After you switch to Source view, look for a region that's bound to an `EffContextsPageContainer` task flow. You can find all attributes and contexts of the extensible flexfield in this task flow. To view the flexfield code and identifying information, open the properties panel for the region. To modify any component within the region, select the desired tag and click **Edit**.

Descriptive Flexfield Modification

In Page Composer, open the page with the flexfield you want to modify. Set the **Source View for Page Composer Enabled** profile option (FND_PAGE_COMPOSER_SOURCE_VIEW) to **Yes** so that the View menu is available for you to switch between the two views. You can find the profile option in the **Manage Administrator Profile Values** task In the Setup and Maintenance work area.

After you switch to Source view, look for the `<descriptiveFlexfield>` element of that flexfield. Open the properties panel for this element to view the flexfield code and to identify the information. Within the properties panel, you might modify properties for the global, context, and context-sensitive segments or re-order the global segments on the page.

Property	Description
Read-only	Indicates whether the flexfield is rendered as read-only. You can set the value to **True** or **False** or an **EL expression**.
Auto Submit	Indicates whether the component submits automatically when users change the segment's value. You can set the value to **True** or **False** or an **EL expression**.
Rendered	Indicates whether the flexfield is rendered on the page. You can set the value to **True** or **False** or an **EL expression**. If a value for this property is explicitly set within the descriptive flexfields metadata, it's shown as read-only. Users can't override the metadata settings using Page Composer.
Required	Indicates whether users must enter some data for the component before saving the page. You can set the value to **True** or **False** or an **EL expression**. If a value for this property is explicitly set within the descriptive flexfields metadata, it's shown as read-only. Users can't override the metadata settings using Page Composer.

Property	Description
Inline Style	The inline style of the component. You can use the inline style property to set individual properties, such as background color, font style, or padding.
Style Class	The style class of the flexfield. You can use style class to group a set of inline styles.
Mode	The UI mode of the descriptive flexfield component. You can use this property to render all the segments or just some of them. You can select any one of these values: • **No value**: Renders all descriptive flexfield segments. By default, all descriptive flexfield segments are rendered. • **global**: Renders only the global segments of the flexfield. You can use this value for a descriptive flexfield inside a table column to generate sub columns for the global segments. • **contextSensitive**: Renders only the context-sensitive segments of the flexfield (including the context segment). You can use this value for a descriptive flexfield inside a table detail region to render the context values.
ShortDesc	A text that appears when a user hovers over an element.
Label	The display text for the component. For example, the field prompt or the single prompt for a group of check boxes.
Columns	The width of the control in terms of the default font size of the browser. You can set this property with a literal value or an EL expression.

Note: Flexfield segments can't be edited using their individual component elements. They can only be edited from the properties panel of the `<descriptiveFlexfield>` element they belong to. To find these components, open the properties panel of the descriptive flexfield, switch to the relevant tab, and search using the unique identifying information. For example, to find a context sensitive segment, open the properties panel for the flexfield and go to the Flexfield Context Segments tab. Search for the segment using its Context Value and Segment Code.

Key Flexfield Modification

In Page Composer, open the page with the flexfield you want to modify. Set the **Source View for Page Composer Enabled** profile option (FND_PAGE_COMPOSER_SOURCE_VIEW) to **Yes** so that the View menu is available for you to switch between the two views. You can find the profile option in the **Manage Administrator Profile Values** task In the Setup and Maintenance work area.

After you switch to Source view, look for the `<KffComponent>` element of that flexfield. Open the properties panel for this element to view the flexfield code and to identify the information. Within the properties panel, you might modify properties for the global, context, and context-sensitive segments or re-order the global segments on the page.

Property	Description
Read-only	Indicates whether the flexfield is rendered as read-only. You can set the value to **True** or **False** or an **EL expression**.
Auto Submit	Indicates whether the component submits automatically when users change the segment's value. You can set the value to **True** or **False** or an **EL expression**.

Property	Description
Rendered	Indicates whether the flexfield is rendered on the page. You can set the value to **True** or **False** or an **EL expression**. If a value for this property is explicitly set within the descriptive flexfields metadata, it's shown as read-only. Users can't override the metadata settings using Page Composer.
Required	Indicates whether users must enter some data for the component before saving the page. You can set the value to **True** or **False** or an **EL expression**. If a value for this property is explicitly set within the descriptive flexfields metadata, it's shown as read-only. Users can't override the metadata settings using Page Composer.
Inline Style	The inline style of the component. You can use the inline style property to set individual properties, such as background color, font style, or padding.
Style Class	The style class of the flexfield. You can use style class to group a set of inline styles.
Mode	The UI mode of the descriptive flexfield component. You can use this property to render all the segments or just some of them. You can select any one of these values: • **No value**: Renders all descriptive flexfield segments. By default, all descriptive flexfield segments are rendered. • **global**: Renders only the global segments of the flexfield. You can use this value for a descriptive flexfield inside a table column to generate sub columns for the global segments. • **contextSensitive**: Renders only the context-sensitive segments of the flexfield (including the context segment). You can use this value for a descriptive flexfield inside a table detail region to render the context values.
ShortDesc	A text that appears when a user hovers over an element.
Label	The display text for the component. For example, the field prompt or the single prompt for a group of check boxes.
Columns	The width of the control in terms of the default font size of the browser. You can set this property with a literal value or an EL expression.

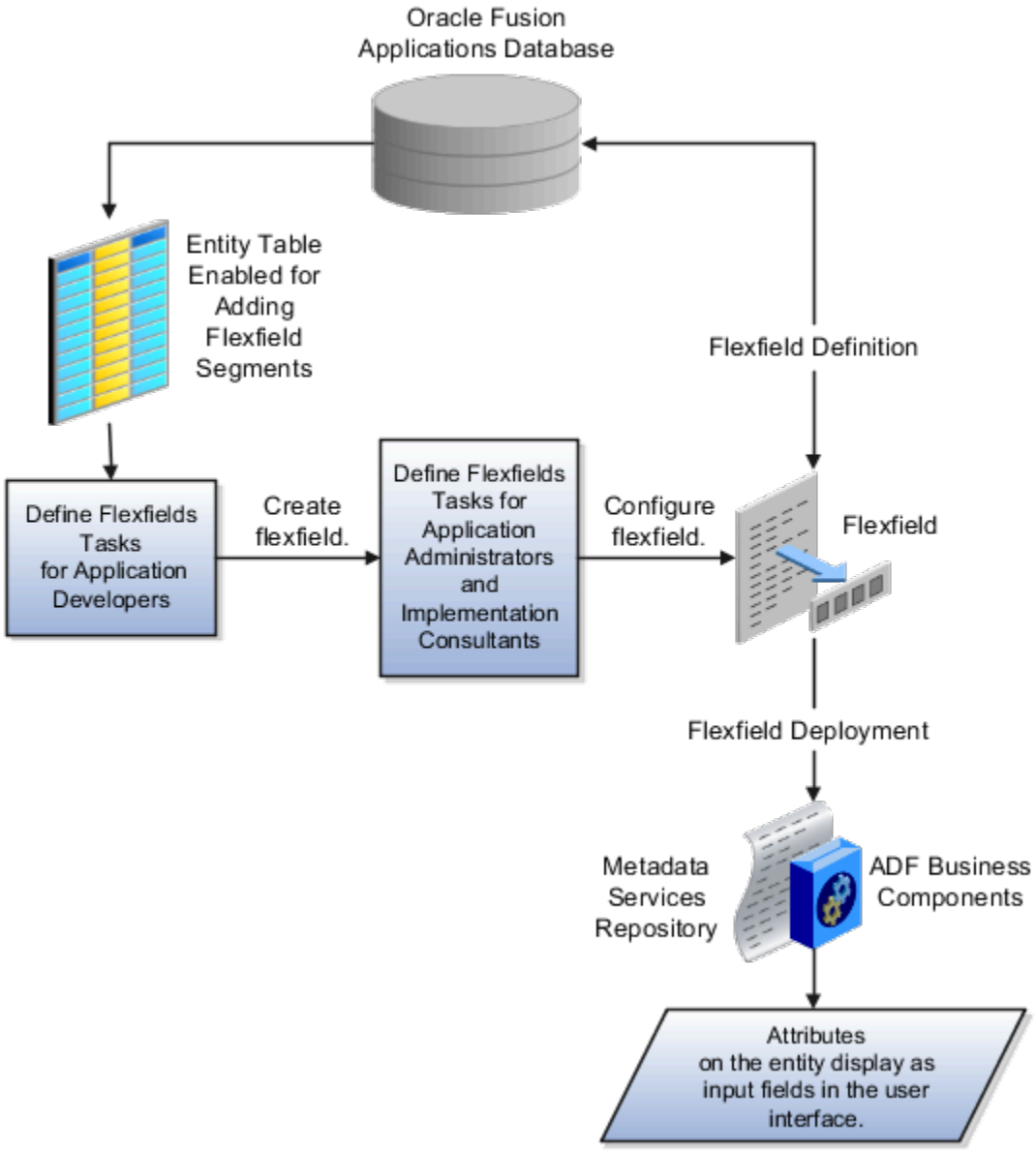
Note: Flexfield segments can't be edited using their individual component elements. They can only be edited from the properties panel of the `<descriptiveFlexfield>` element they belong to. To find these components, open the properties panel of the descriptive flexfield, switch to the relevant tab, and search using the unique identifying information. For example, to find a context sensitive segment, open the properties panel for the flexfield and go to the Flexfield Context Segments tab. Search for the segment using its Context Value and Segment Code.

Related Topics

- Flexfields at Runtime
- Set Profile Option Values

How Flexfields Work with Oracle Application Cloud Architecture

To capture additional data, administrators or implementors configure flexfield segments that represent attributes of business objects. Business objects are enabled for both descriptive flexfields and extensible flexfields.



Application developers create a flexfield and register it so that it's available for configuration. Administrators and implementation consultants configure segments and other properties of the available flexfields. This information is stored as additional flexfield metadata in the database. Deploying the flexfield generates ADF business components based on the flexfield metadata in the database.

The following aspects are important in understanding how flexfields and Oracle Fusion Cloud Applications architecture work together:

- Integration
- Deployment
- Import and export
- Runtime
- Patching

Integration

The attributes that you add by configuring flexfields are available throughout the Oracle Middleware technology stack. You can use the flexfield segment's Application Programming Interface (API) to identify segments and integrate the flexfields in the following:

- User interface pages
- Service-oriented Architecture (SOA) infrastructure
- Oracle Transactional Business Intelligence
- Extended Spread Sheet Database (ESSbase)

Flexfield configurations are preserved across application updates.

Deployment

The metadata for the flexfield is stored in the application database as soon as you save your configuration changes. Deploying the flexfield generates the ADF business components so that the user interface reflects the latest flexfield definition in the metadata.

Importing and Exporting

Using the Setup and Maintenance work area, you can import and export flexfields across the implementation site. The deployment status must be either Deployed or Deployed to sandbox. Therefore, before you attempt migration, verify and ensure that a flexfield is successfully deployed.

Runtime

The latest definitions of a flexfield reflect on the user interface only if the flexfield is deployed. When the user interface accesses a business object, the deployed flexfield definition identifies the attributes associated with the captured values. On a page, if you add display configurations for a flexfield using the Application Composer tool, the same flexfield segments can appear differently on different pages.

Patching

Flexfield configurations are preserved during patching and upgrading.

Related Topics

- How Flexfield Deployment Status is Calculated

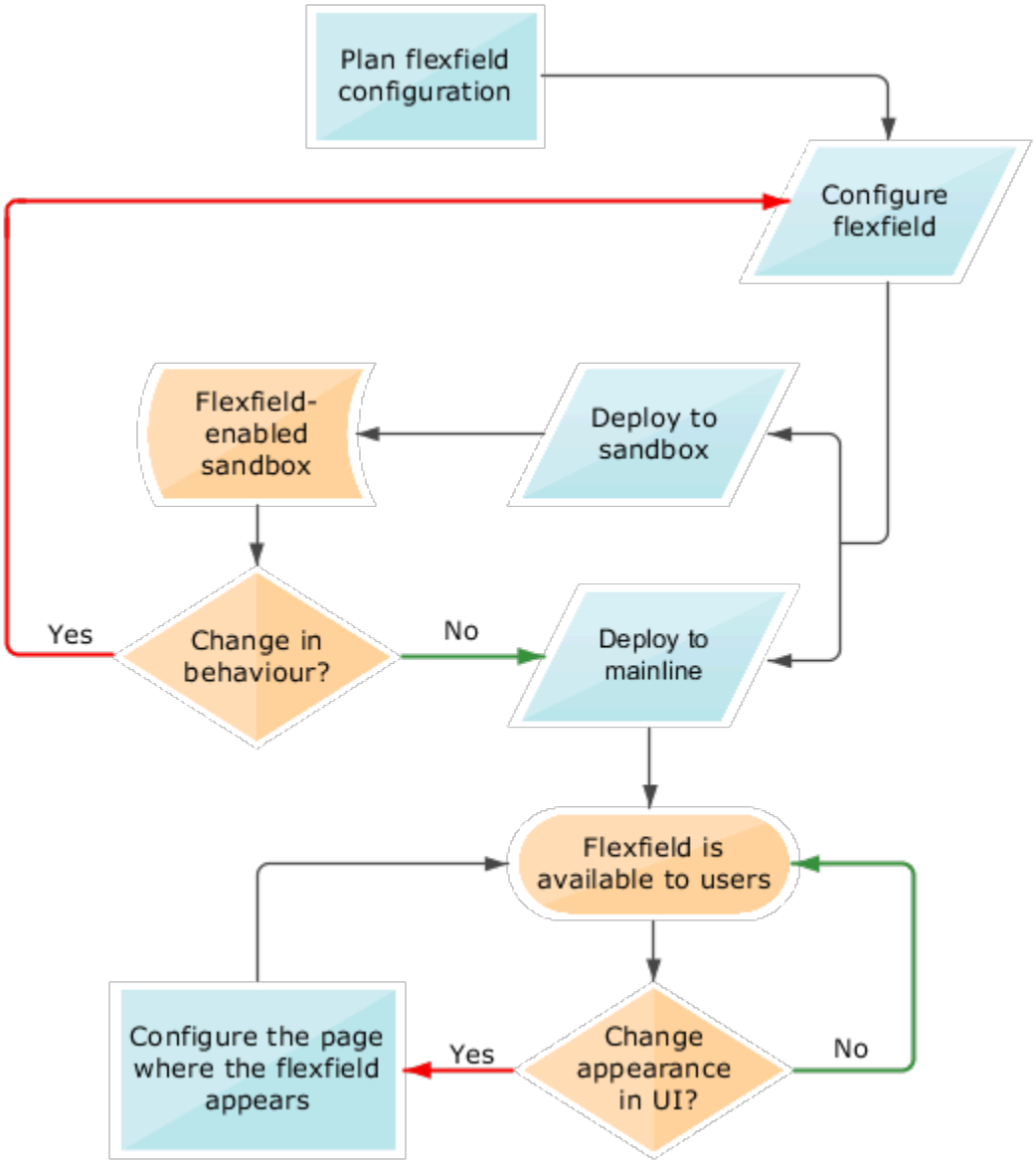
Flexfield Management

Considerations for Managing Flexfields

Managing flexfields involves planning and configuring flexfields.

You plan and configure the registered flexfields provided in your applications by applications developers. How you configure flexfield segments determines how the flexfield segments appear to users. Optionally, you can modify the UI page to change how the flexfield segments appear to users on that page.

The following figure shows the processes involved in making flexfields available to users. The tasks in the Define Flexfields activity let administrators configure and deploy flexfields. After you configure and deploy a flexfield to a sandbox, deploy it again to the mainline metadata so that it's available to the users.



Consider the following aspects of managing flexfields:

- Planning flexfields
- Configuring flexfields
- Enabling a flexfields segment for business intelligence
- Deploying flexfields
- Optionally changing a flexfield segment's appearance in a user interface page
- Identifying flexfields on a page and troubleshooting

Planning Flexfields

Before you begin planning flexfields, determine what type is appropriate to your needs, and which business objects are available for modifying flexfields. All flexfields consist of segments which represent attributes of an entity. The value a user enters for an attribute is stored in a column of the entity table. Carefully plan flexfields before configuring them. Before configuring new segments for your flexfields, be sure to plan their implementation carefully.

If you have determined that a business object supports flexfields, and those flexfields have been registered, you can begin planning their configuration. Note the code name of the flexfield you intend to configure so that you can find it easily in the Define Flexfield activity. In some cases you can determine and configure how the flexfield appears on the page. See Oracle Fusion Cloud Applications Help for specific products to determine any restrictions on using product-specific flexfields.

Configuring Flexfields

Administrators or implementors configure flexfields so they meet the needs of the enterprise. Some flexfields require configuration to make an application operate correctly. You can configure flexfields using the following methods:

- Use the manage flexfield tasks in the Setup and Maintenance work area.
- Use the Highlight Flexfields command in the Administration menu while viewing a page.
    - Use the **Configure Flexfield** icon button to manage all aspects of a flexfield, such as change a segment's sequence number or configure a flexfield segment's business intelligence label.
    - Use the **Add Segment** and **Edit Segment** icon buttons to add and edit descriptive or extensible flexfield segments with simple configurations.
    - Use the **Add Context** icon button to add descriptive or extensible flexfield context values.

Configuring a flexfield includes the following:

- Defining value sets against which the values entered by users are validated
- Defining the structure or context of the segments in the flexfield
- Specifying the identifying information for each segment
- Specifying the display properties such as prompt, length and data type of each flexfield segment
- Specifying valid values for each segment, and the meaning of each value within the application

> **Tip:** You can create value sets while creating descriptive and extensible flexfield segments. However, define value sets before configuring key flexfield segments that use them, because you assign existing value sets while configuring key flexfield segments.

When creating table-validated, independent, dependent, or subset value sets while creating descriptive and extensible flexfield segments, you can optionally specify to display the description of the selected value next to the segment. You

can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order based on the segments' sequence numbers. You can't enter a number for one segment that is already in use for a different segment. Therefore, you may consider numbering the segments in multiples, such as 4, 5, or 10, to make it easy to insert new attributes.

A flexfield column is assigned to a new segment automatically, but you can change the assignment before saving the segment. If you must set a specific column assignment for a segment, create that segment first to ensure that the intended column isn't automatically assigned to a different segment.

Enabling a Flexfield Segment for Business Intelligence

You can enable flexfield segments for business intelligence if the flexfield is registered in the database as an Oracle Transactional Business Intelligence-enabled flexfield. For more information about enabling segments for business intelligence, see points to consider when enabling descriptive, extensible, and key flexfield segments for business intelligence. For extensible flexfield segments, you can't assign labels to equalize segments across contexts that are semantically equivalent.

Deploying Flexfields

Once you have configured a flexfield, you must deploy it to make the latest definition available to users. In the Define Flexfields tasks, you can deploy a flexfield using either of the following commands:

- The Deploy Flexfield command deploys a flexfield to the mainline metadata. This command is for general use in a test or production environment.
- The Deploy to Sandbox command deploys a flexfield to sandbox. This command is for confirming that the flexfield is correctly configured before deploying it to the mainline metadata.

> **Note:** You can't deploy your changes in value sets, key flexfields, and extensible flexfields to your sandbox. You must deploy them directly to the mainline environment. However, if you're making changes to any descriptive flexfields, you must deploy your flexfield to the sandbox and test your changes before publishing your sandbox.

In Highlight Flexfields mode, when using the:

- **Add Context**, **Add Segment**, and **Edit Segment** tools for extensible flexfields, use the Save command to save your changes. Then use the Deploy command to deploy the flexfield to the mainline metadata
- **Add Segment** and **Edit Segment** tools for descriptive flexfields, use the Save and Deploy command to save your changes. Then deploy the flexfield to the mainline metadata

Once deployed, the deployment status indicates the state of the currently configured flexfield relative to the last deployed definition.

Optionally Changing a Flexfield Segment Appearance

The flexfield attributes that you define integrate with the user interface pages where users access the attributes' business object. Application development determines the UI pages where business objects appear and the display patterns used by default to render flexfield segments.

After a flexfield has been deployed to the mainline MDS repository so that it appears on application pages, you can modify it on a per-page basis using Page Composer. For example, you can hide a segment, change its prompt or other properties, or reorder the user-defined global attributes so that they're interspersed with the core attributes in the same parent layout. You can modify the appearance of descriptive and extensible flexfield segments in the UI page using Page Composer, once the flexfield is deployed to the mainline metadata.

If the applications are running in different locales, you can provide different translations for translatable text, such as prompts and descriptions. Enter translations using the locale that requires the translated text. Click your user image or name in the global header to open the **Settings and Actions** menu, and select **Set Preferences**. Then change the text to the translated text for that locale.

Identifying Flexfields on a Page

The **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area identifies the location of flexfields on the page by displaying an **Information** icon button for accessing details about each flexfield.

Even if a descriptive or extensible flexfield isn't yet deployed and no segments appear on the page in normal view, the flexfield appears in the Highlight Flexfield view for that page. For descriptive flexfields, the segments as of the last deployment appear. For extensible flexfields, any segments and contexts that have been saved but not yet deployed also appear as disabled.

Highlight Flexfields accesses the current flexfield metadata definition. Use the highlighted flexfield's **Configure Flexfield** icon button to manage flexfields directly. Alternatively, note a highlighted flexfield's name to search for it in the tasks for managing flexfields.

Related Topics

- Modify Flexfields Using Page Composer
- Overview of Value Sets
- Considerations for Managing Descriptive Flexfields
- Considerations for Managing Extensible Flexfields
- Considerations for Managing Key Flexfields

Flexfield Segment Properties

Independent of the value set assigned to a segment, segments may have properties that affect how they're displayed and how they function.

The following aspects are important in understanding

- Display properties
- Properties related to segment values
- Properties related to search
- Range validation segments
- Rule validation of segment values
- Naming conventions

Display Properties

The following table summarizes display properties.

Property	Description
Enabled	Whether the segment can be used.
Sequence	The order the segment appears in relation to the other configured segments.

Property	Description
Prompt	The string to be used for the segment's label in the user interface.
Display type	The type of field in which to display the segment.
Selected and deselected values	If the display type is check box, the actual values to save. For example, Y and N or 0 and 1.
Display size	The character width of the field.
Display height	The height of the field as measured in visible number of lines when the display type is a text area.
Read only	Whether the field should display as read-only, not editable text.
Description help text	The field-level description help text to display for the field. Use description help text to display a field-level description that expands on or clarifies the prompt provided for the field. If description help text is specified, a Help icon button is displayed next to the field in the application. The description help text is displayed when the user hovers over the Help icon button.
Instruction help text	The field-level instruction help text to display for the field. Use instruction help text to provide directions on using the field. If instruction help text is specified, it's appears in an in-field help note window when users move the cursor over the field.

Properties Related to Search

Extensible flexfield segments can be marked as selectively required in search using the indexed property. The indexed property requires users to enter a value before conducting a search on the attribute represented by the indexed segment. A database administrator must create an index on the segment column representing the indexed attribute.

Range Validation of Segments

Range validation enables you to enforce an arithmetic inequality between two segments of a flexfield. For example, a product must be ordered before it can be shipped. Therefore, the order date must be on or before the ship date. Also, the order date segment value must be less than or equal to the ship date segment value. You can use range validation to ensure this relationship.

The conditions for range validation are as follows:

- Segments must be configured for range validation in pairs, one with the low value and one with the high value.
- Both segments must be of the same data type.
- Both segments must be parts of the same structure in a key flexfield or parts of the same context in a descriptive flexfield or extensible flexfield.
- The low value segment must have a sequence number that's lesser than that of the high value segment.
- Non-range validated segments can exist between a range validated pair, but range validated pairs can't overlap or be nested.

You can configure as many range validated pairs as you want within the same flexfield. Your application automatically detects and applies range validation to the segment pairs that you define, in sequence order. It must detect a low value

segment first, and the next range validated segment that it detects must be a high value segment. These two segments are assumed to be a matching pair. The low value and the high value can be equal.

Rule Validation of Segment Values

Validation rules on descriptive and extensible flexfield segments determine how an attribute is validated. The value entered for an attribute on a business object must match a specified format or be restricted to a list of values. You can use a value set or a Groovy validator to specify the validation rules.

Value set validation is required for global segments and context-sensitive segments, and optional for context segments. In the case of context segments, the application may validate a value instead of the value set validating the value against the context segment. However the application entered values must match exactly the valid context segment values. If the context segment values are a superset or subset of the input values, you must assign a table-validated value set or independent value set to validate context values.

You can also use Groovy validation to set additional restrictions or requirements for what values are allowed for certain attributes of business objects. This is useful when you need to use the same value set to validate multiple segments, but the exact validation requirement changes with each case. These validators can be defined at the global segment level, or at the context level, based on your business needs. They have a validator code, validation expression, error message, and description. After adding a new validator, click the **Groovy Expression Builder** icon to open the expression builder window where you define your validation expression. Groovy validation is done when a user tries to save their values to an attribute that has a Groovy validator. If the value for this attribute fails validation against the Groovy expression, the text defined in the **Error Message** column is displayed as an error message.

When you configure a descriptive flexfield segment, you can specify a constant to use for setting the initial value. The initial value can be an available parameter. For every planned segment, list the constant value or parameter, if any, to use for the initial value.

Naming Conventions

Enter a unique code, name, and description for the segment. These properties are for internal use and not displayed to end users. You can't change the code after the segment is created.

The Application Programming Interface (API) name is a name for the segment that isn't exposed to users. The API name is used to identify the segment in various integration points including web services, rules, and business intelligence. Use alphanumeric characters only with a leading character. For example, enter a code consisting of the characters A-Z, a-z, 0-9 with a non-numeric leading character. The use of spaces, underscores, multi-byte characters, and leading numeric characters isn't permitted. You can't change the API name after the segment has been created.

Related Topics

- Considerations for Managing Extensible Flexfields

Naming Conventions for Flexfield APIs

Application Programming Interface (API) name is a name for your flexfield component, which isn't exposed to users. These names are used to identify flexfield components in various integration points, including web services, rules, and business intelligence.

How to Frame API Names

You must use only alphanumeric characters for API names. For example, enter a name with the characters A-Z, a-z, or 0-9, with a non-numeric leading character. Don't use spaces, underscores, multi-byte characters, or leading numeric characters in your API names.

CAUTION: Do not change API names after they're created. Doing so could break integration points.

Words You Can't Use for API Names

You can't use certain words for API names when configuring flexfields because they're reserved words in ADF, SQL, PL/SQL, Java, Groovy, and so on.

This table lists some of the reserved words that can't be used as API names. This list isn't exhaustive.

Letter	Reserved Words
A	ABORT, ABSTRACT, ACCEPT, ACCESS, ACTIONENABLED, ADD, ALL, ALLROWSINRANGE, ALTER, AND, ANY, ARRAY, ARRAYLEN, AS, ASC, ASSERT, ASSIGN, AT, ATTRIBUTEDEF, ATTRIBUTEDEFS, ATTRIBUTEVALUE, ATTRIBUTEVALUES, AUDIT, AUTHORIZATION, AVG
B	BEGIN, BETWEEN, BINDINGS, BODY, BOOLEAN, BREAK, BY, BYTE, BYVALUE
C	CASCADE, CASE, CAST, CATCH, CATEGORY, CHAR, CHECK, CHILDREN, CLASS, CLONE, CLOSE, CLUSTER, CLUSTERS, COALESCE, COLAUTH, COLUMN, COLUMNS, COMMENT, COMMIT, COMPRESS, CONNECT, CONST, CONSTANT, CONSTRIANT, CONTAINS, CONTINUE, COUNT, CRASH, CREATE, CURRENT, CURRENTROW, CURRVAL, CURSOR
D	DATABASE, DATACONTROL, DATE, DBA, DEBUGOFF, DEBUGON, DECIMAL, DECLARE, DEFAULT, DEFINITION, DELAY, DELETE, DELTA, DESC, DESCRIPTION, DIGITS, DISPLAY, DISPLAYDATA, DISPLAYHINT, DISPLAYHINTS, DISPOSE, DISTINCT, DIV, DO, DOUBLE, DROP
E	ELSE, ELSIF, EMPTY, ENABLED, ENABLEDSTRING, END, ENTRY, EQ, EQUALS, ERROR, ESTIMATEDROWCOUNT, EXCEPTION, EXCLUSIVE, EXISTS, EXIT, EXTENDS
F	FALSE, FETCH, FILE, FINAL, FINALIZE, FINALLY, FINDMODE, FLOAT, FOR, FORM, FROM, FULLNAME, FUNCTION, FUTURE
G	GE, GENERIC, GETCLASS, GOTO, GRANT, GROUP, GROUPBY, GT
H	HASHCODE, HAVING, HINTS
I	IDENTIFIED, IF, IMMEDIATE, IMPLEMENTS, IMPORT, IN, INCREMENT, INDEX, INDEXES, INDICATOR, INITIAL, INNER, INPUTVALUE, INSERT, INSTANCEOF, INT, INTEGER, INTERFACE, INTERSECT, INTO, IS, ITERATORBINDING
J	JAVA
K	KEY
L	LABEL, LABELS, LABELSET, LE, LEVEL, LIKE, LIMITED, LOCK, LONG, LOOP, LT
M	MANDATORY, MAX, MAXEXTENTS, MIN, MINUS, MLSLABEL, MOD, MODE, MODIFY

Letter	Reserved Words
N	NAME, NATIVE, NATURAL, NE, NEW, NEXTVAL, NOAUDIT, NOCOMPRESS, NOT, NOTFOUND, NOTIFY, NOTIFYALL, NOWAIT, NULL, NULLIF, NUMBER
O	OF, OFFLINE, ON, ONLINE, OPEN, OPERATIONENABLED, OPERATOR, OPTION, OR, ORDER, ORDERBY, OTHERS, OUT, OUTER, OVERLAPS
P	PACKAGE, PARTITION, PCTFREE, POSITIVE, PRAGMA, PRIMARY, PRIOR, PRIVATE, PRIVILEGES, PROCEDURE, PROTECTED, PUBLIC
R	RAISE, RANGE, RANGESET, RANGESIZE, RANGESTART, RAW, REAL, RECORD, REFERENCES, RELEASE, REMR, RENAME, RESOURCE, REST, RESULT, RETURN, REVERSE, REVOKE, ROLLBACK, ROOTNODEBINDING, ROW, ROWID, ROWLABEL, ROWNUM, ROWS, ROWTYPE, RUN
S	SAVEPOINT, SCHEMA, SELECT, SELECTEDVALUE, SEPARATE, SESSION, SET, SHARE, SHORT, SIZE, SMALLINT, SPACE, SQL, SQLBUF, SQLCODE, SQLERRM, START, STATEMENT, STATIC, STDDEV, SUBTYPE, SUCCESSFUL, SUM, SUPER, SWITCH, SYNCHRONIZED, SYNONYM, SYSDATE
T	TABAUTH, TABLE, TABLES, TASK, TERMINATE, THEN, THIS, THROW, THROWS, TO, TOOLTIP, TOSTRING, TRANSIENT, TRIGGER, TRUE, TRY, TYPE
U	UID, UNION, UNIQUE, UPDATE, UPDATEABLE, USE, USER
V	VALIDATE, VALUES, VAR, VARCHAR, VARCHAR2, VARIANCE, VIEW, VIEWS, VOID, VOLATILE
W	WAIT, WHEN, WHENEVER, WHERE, WHILE, WITH, WORK
X	XOR

Related Topics

- Flexfield Segment Properties
- Considerations for Managing Flexfields

How Flexfield Segments are Rendered on Pages

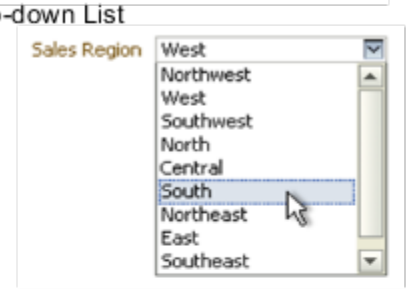
Flexfield segments appear on pages as attributes of business objects. When you create or edit flexfield segments, the value you enter for the display type determines how the segment appears on a page.

How Display Type Values Appear

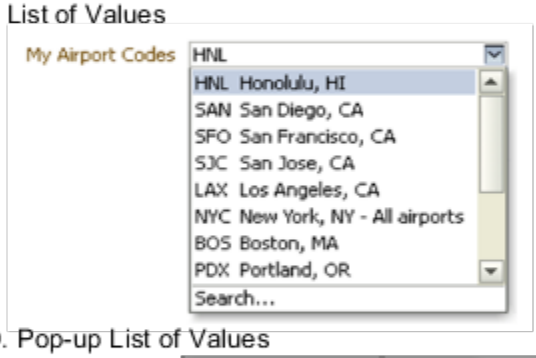
The series of figures (A to L) represent how the display types render on the UI. Each display type screenshot is assigned an alphabetic character that maps to the display type and its description in the table.

A. Check Box

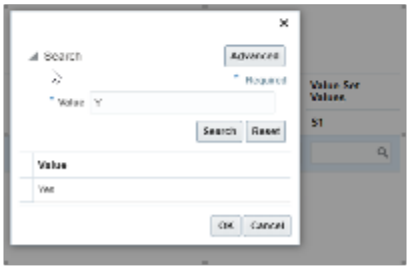
B. Drop-down List



C. List of Values



D. Pop-up List of Values

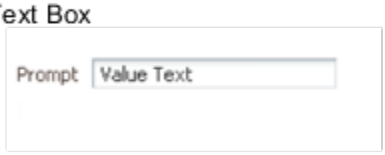


E. Search Enabled List of Values

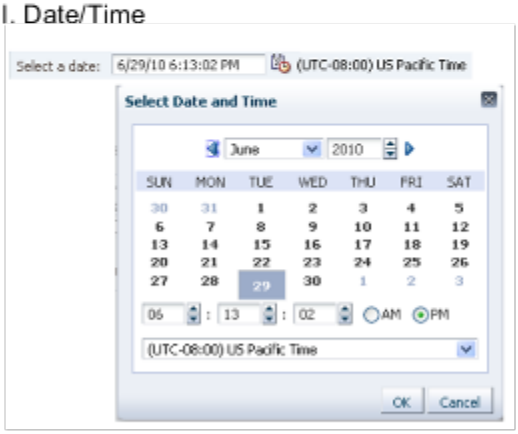
F. Radio Button Group

G. Text Area

H. Text Box

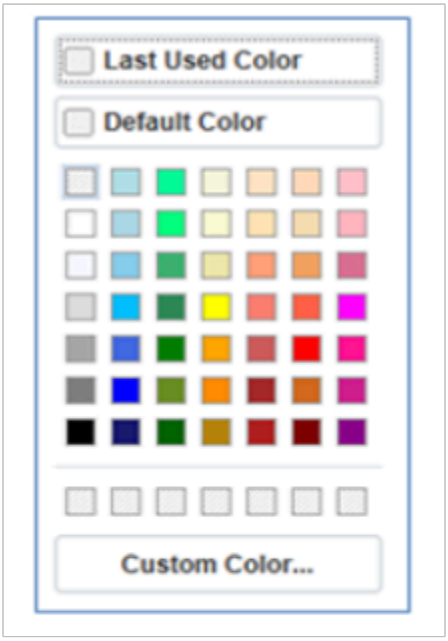


I. Date/Time

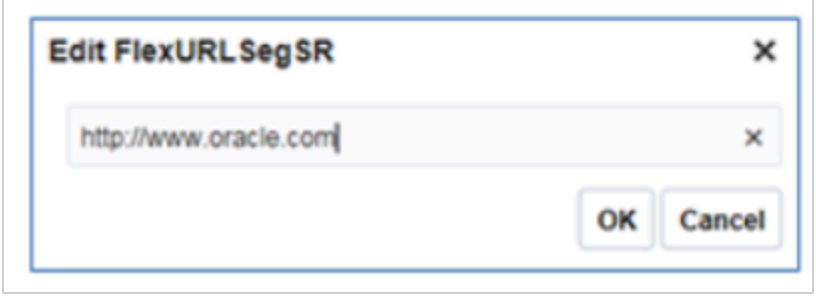


J. Rich Text Editor

K. Color



L. Static URL



The table describes each display type:

Figure Reference	Display Type	Description
A	Check Box	The field appears as a check box. If you select the check box, the checked value is used. Otherwise, the deselected value is used.
B	Drop-down List	The field appears as a list of values from which you can select. It supports a smaller number of values.
C	List of Values	The field appears as a list of values from which you can select.

Figure Reference	Display Type	Description
D	Pop-up List of Values	The field appears as a list of values from which you can select. It supports large volumes of values.
E	Search Enabled List of Values	The field appears as a text field with a **Search** icon. You can type a value in the text field. You can also click the Search icon that opens another window for searching.
F	Radio Button Group	The field appears as a set of radio buttons. You can click a button to select an option. When you select an option, previously selected option is automatically deselected.
G	Text Area	The field appears as a text area where you can enter multiple lines of text. The display width and height specify the visible width and number of lines in the text area.
H	Text Box	The field appears as a text field where you can enter a single line of text. The display width controls the width of the text box.
I	Date Time	The field enables you to enter a date if the data type is Date. You can enter a date and time if the data type is Date Time. You can select the date in a calendar. If the data type is Date Time, you can also specify the hour, minutes, seconds, AM or PM, and the time zone.
J	Rich Text Editor	The field appears as a text area where you can enter and edit multiple lines of formatted text. The display width and height specify the visible width and number of lines in the rich text editor. **Note:** This display type is available for extensible flexfields only.
K	Color	The field displays a color palette. You can select a color and assign it to the segment. You can select the display type only if the value set for the segment is set to ORA_FND_COLOR_#RRGGBB.
L	Static URL	The field appears as a text field where you can enter a fixed URL that opens the web page when clicked.

Figure Reference	Display Type	Description
		Note: The length of the URL must not exceed 255 characters.

Note: If you select the display type as Hidden, the field isn't displayed.

How Flexfields and Value Sets Work Together

Value sets are specific to your enterprise. When gathering information using flexfields, your enterprise's value sets validate the values that your users enter based on how you defined the value set.

You can assign a value set to any number of flexfield segments in the same or different flexfields. Value set usage information indicates which flexfields use the value set.

The following aspects are important in understanding how flexfields and value sets work together:

- Defining value sets
- Shared value sets
- Deployment

Defining Value Sets

As a key flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield. With descriptive and extensible flexfields, you can define value sets when adding or editing a segment.

Note: Ensure that changes to a shared value set are compatible with all flexfield segments that use the value set.

Shared Value Sets

When you change a value in a shared value set, the change affects the value set for all flexfields that use that value set. The advantage of a shared value set is that a single change propagates to all usages. The drawback is that the change shared across usages may not be appropriate in every case.

Value Set Values

To configure user-defined attributes to be captured on the value set values in the *Manage Value Sets* task, configure the Value Set Values descriptive flexfield. The object's code is FND_VS_VALUES_B.This flexfield expects the context code to correspond to the value set code. For each value set, you can define a context whose code is the value set code, and whose context-sensitive segments are shown for the values of that value set. By default, the context segment is hidden since it maps to the value set code and is not expected to be changed.

You can also define global segments that are shown for all value sets. However, this would be quite unusual since it would mean that you want to capture that attribute for all values for all value sets.

Deployment

When you deploy a flexfield, the value sets assigned to the segments of the flexfield provide users with the valid values for the attributes represented by the segments.

Related Topics

- Overview of Flexfield Deployment
- How Flexfields Work with Oracle Application Cloud Architecture
- Validation Type Options for Value Sets

Default Segment Values

To populate a flexfield segment with a default value when a row is created, specify a default type of constant, parameter, or Groovy, and a default value or expression.

> **Note:** Default values for global, context, and context-sensitive segments are shown only when a descriptive flexfield row is created. Also, when a context segment value is changed on a UI that renders new context-sensitive segments, these segments display default values for both new and existing rows.

To synchronize a segment's value with another field's value whenever it changes, specify the derivation value to be the flexfield parameter from which to derive the attribute's value. Whenever the parameter value changes, the attribute's value is changed to match. If you derive an attribute from a parameter, consider making the attribute read-only, as values entered by users are lost whenever the parameter value changes. When setting a default value or deriving a default value from a parameter, only those attributes designated by development as parameters are available for selection. Different combinations of making the segments read only or editable in combination with the default or derivation value or both, have different effects.

If your segment's default type is Groovy, you can set the Groovy expression you need using the expression builder. To open the expression builder, select **Groovy Expression** as your **Default Type** and click the **Groovy Expression Builder** icon. But you should know that Groovy defaulting doesn't support derivation when a dependent parameter changes. The expression is evaluated only at segment creation.

> **Note:** New usages of Groovy default values and validators in flexfields are deprecated because they won't be automatically upgraded in future releases. However, flexfields already using Groovy will continue to work. If you want to add Groovy expression to new flexfields, you must set the **Flexfield Groovy Usage Support Restricted** (ORA_FND_FLEX_GROOVY_RESTRICTED) profile option to **N**.

The following table maps these different combinations. Initial action corresponds to the row for the attribute value being created in the entity table. If the default value is read only, it can't subsequently be changed through the user interface. If the default value isn't read only, users can modify it. However, if the segment value is a derived value, a user-modified segment value is overwritten when the derivation value changes.

Default Type	Default value specified?	Derivation value specified?	Initial action	Action after parameter changes
None	No	Yes	No initial segment value	The changed parameter derivation value updates segment value

Default Type	Default value specified?	Derivation value specified?	Initial action	Action after parameter changes
Constant	Yes	No	Default segment value	N/A
Constant	Yes	Yes	Default segment value	The changed parameter derivation value updates segment value
Parameter	Yes	No	The default segment value is the parameter's default value	N/A
Parameter	Yes	Yes, and same as default value	The default segment value is the parameter's default and derivation value	The changed parameter derivation value updates segment value
Parameter	Yes	Yes, and different from default value	The default segment value is the parameter's default value	The changed parameter default value doesn't update segment value. Only the changed derivation value updates the segment value.
Groovy Expression	Yes	N/A	The default value of the segment is determined by evaluating the groovy expression.	Groovy expressions are evaluated only at segment creation. They're not evaluated when a dependent parameter is modified.
SQL	Yes	No	The default segment value is the value returned by executing SQL statement	N/A
SQL	Yes	Yes	The default segment value is the value returned by executing SQL statement	The changed parameter derivation value updates segment value

Note: For Descriptive Flexfield, only the `PARAMETER` bind variable is supported as the default type in a SQL statement in the specified format: `#{PARAMETER.<PARAMETER_NAME>}` Other bind variables, such as `SEGMENT`, `CONTEXT`, and `VALUESET` aren't supported in a SQL statement. Also, the default type in a SQL statement is evaluated only when you create a segment. They aren't evaluated when a dependent parameter is modified.

Related Topics

- How can I set a default value for a flexfield segment?
- Groovy Scripting Reference

Flexfield Usages

The flexfield usage specifies the table with which the flexfield and its segments are associated. A flexfield can have multiple usages. However, the first table registered for a flexfield indicates the primary usage. Segments are based on the primary usage.

Other usages of the same table for the same flexfield use the same segment setup, though the column names may have a differentiating prefix.

On the Manage Descriptive Flexfields and Manage Extensible Flexfields pages, click the **Show Entity Usages** icon for a specific flexfield to view its entity usage. On the Manage Value Sets page, you can view the flexfield usages for a selected value set.

Extensible Flexfields

For extensible flexfield contexts, you can configure a different usage. The use of an extensible flexfield context determines the scenarios or user interfaces in which the segments of a context appear to users. For example, the Supplier page displays an extensible flexfield's supplier usage and the Buyer page for the same flexfield displays the buyer usage. Then, a context that's associated only with the supplier usage appears only on the Supplier page and not on the Buyer page.

Value Sets

The use of value sets specifies the flexfields having segments where the identified value set is assigned.

FAQs for Flexfield Management

How can I access predefined flexfields?

Search for predefined flexfields using the manage flexfields tasks.

1. In the Setup and Maintenance work area, go to any of the following tasks:
    - Manage Descriptive Flexfields
    - Manage Extensible Flexfields
    - Manage Key Flexfields
2. On the page for the type of flexfield you're looking for, enter any of the search parameters and click **Search**.

    > **Tip:** If you don't know the flexfield name or the code, use the **Module** field to filter search results.

3. Click a flexfield to view its details.

For configuration that's not available through the manage flexfields tasks and the UI, ask your help desk to log a service request.

Related Topics

- How do I update existing setup data?

Why can't I edit my flexfield or value set configuration?

Your flexfield or value set configuration may be protected. Application developers mark some configurations as protected, indicating that you can't edit them.

Some examples of configurations that may be protected are:

- Descriptive flexfields
- Extensible flexfield contexts
- Extensible flexfield pages
- Value sets

Why did my page not display any flexfield?

For a flexfield to be available on the page, it must be registered by developers and also deployed. The segments appear on the page only after you have successfully deployed the flexfield.

A flexfield's deployment status indicates whether the flexfield segments are available to users. The flexfield segments that users see correspond to the flexfield definition last deployed successfully.

Note: Oracle Fusion Cloud Sales Automation and Oracle Fusion Cloud Fusion Service don't support flexfields.

To add attributes to these applications, you may use Application Composer. For more information, see the product-specific documentation.

Related Topics

- How Flexfield Deployment Status is Calculated

Why did my flexfield changes not appear in the UI?

The ADF business components or artifacts of a flexfield, which are generated into an Oracle Metadata Services (MDS) Repository when the flexfield is deployed, are cached within a user session.

You must sign out and sign back in to view flexfield definition changes reflected in the application user interface page.

Related Topics

- How Flexfield Deployment Status is Calculated

How can I enable flexfield segments for Oracle Social Network Cloud Service?

When you manage Oracle Social Network Objects during setup and maintenance, search for the business object that includes descriptive flexfields. Select the attributes that are defined as flexfield segments and enable them.

Flexfield Deployment

Overview of Flexfield Deployment

Deployment generates or refreshes the Application Development Framework (ADF) business component objects that render flexfields on the UI. Deployment adds user-defined attributes to the Web Services Description Language (WSDL) schemas exposed by Oracle Fusion Cloud ADF services and used by SOA composites.

Flexfields are deployed for the first time when the application is provisioned. After you configure a flexfield, you must deploy it to make the changes available to users.

If a descriptive flexfield is enabled for business intelligence, the deployment process redeploys the flexfield's business intelligence artifacts.

You can deploy a flexfield to a sandbox for testing or to the mainline metadata for use in a test or production environment. You can deploy extensible flexfields as a background process.

After deployment, the user-defined attributes are available for incorporating into the SOA infrastructure, such as business process and business rule integration. For example, you can now write business rules that depend on the user-defined attributes. You must sign out and sign back in to Oracle Fusion Cloud Applications to see the changes you deployed in the production environment.

The following aspects are important in understanding flexfield deployment:

- Deployment Status
- Initial Deployment Status
- Metadata Validations
- Metadata Synchronization
- Deployment as a Background Process
- Export of Artifacts from Flexfield MDS

Deployment Status

Every flexfield has a deployment status. Check the deployment status of your flexfield after patching. The following table lists the different deployment statuses a flexfield can have.

Deployment Status	Meaning
Edited	The flexfield metadata definition hasn't been deployed yet. Updates of the metadata definition aren't applied in the production environment yet.
Patched	The flexfield metadata definition has been modified through a patch or a data migration action, but the flexfield hasn't yet been deployed. So, the updated definition isn't reflected in the production environment.
Deployed to Sandbox	The current metadata for the flexfield is deployed in ADF artifacts and available as a flexfield-enabled sandbox.
Deployed	The current metadata for the flexfield is deployed in ADF artifacts and available to users. No changes have been made to the flexfield after being deployed to the mainline metadata.

Deployment Status	Meaning
Error	The deployment attempt in the mainline metadata failed.

Note: Whenever a value set definition changes, the deployment status of a flexfield that uses that value set changes to edited. If the change results from a patch, the deployment status of the flexfield changes to patched.

Initial Deployment Status of Flexfields

The Oracle Fusion Cloud Applications implementation loads flexfield metadata into the database. This initial load sets the flexfield status to Edited. During installation, the application provisioning process deploys the flexfields of the provisioned applications, setting their status to Deployed if no errors occur.

In a provisioned application, deployed flexfields are ready to use. In some cases, flexfield availability at production environment requires setup, such as defining key flexfields.

Metadata Validation

Use the Validate Metadata command to view possible metadata errors before attempting to deploy the flexfield. Metadata validation is the initial phase of all flexfield deployment commands. By successfully validating metadata before running the deployment commands, you can avoid failures in the metadata validation phase of a deployment attempt. The deployment process ends if an error occurs during the metadata validation phase. Metadata validation results don't affect the deployment status of a flexfield.

Metadata Synchronization

When an extensible or descriptive flexfield is deployed, the deployment process regenerates the XML schema definition (XSD). As a result, the user-defined attributes are available to web services and the SOA infrastructure.

After deploying a flexfield configuration, you must synchronize the updated XML schema definition (XSD) files in the MDS repositories for each SOA application.

Note: To synchronize the updated XSD files in the MDS repositories in Oracle Cloud implementations, log a service request using My Oracle Support at **https://support.com/**

Deployment as a Background Process

You can deploy extensible flexfields offline as a background process and continue working in the session without having to wait for the deployment to complete. You can queue up several extensible flexfields and deploy as a background process. The flexfields are deployed, one at a time, in the order that you deploy them to the queue. You must deploy extensible flexfields with more than 30 categories as a background process.

You can remove an extensible flexfield from the deployment queue with the Cancel Background Deployment command. When an extensible flexfield is deployed in a background process, its offline status indicates that the flexfield is in a background deployment process. A flexfield's offline status is cleared and its deployment status updated when the background deployment process has completed.

Export of Artifacts from Flexfield MDS

You can export business components from MDS for descriptive, extensible, or key flexfields, mainly for use in troubleshooting issues with flexfields. Use **Download Flexfield Archive** on the Manage Flexfields page to export MDS

artifacts of the selected flexfield, and import them to an archive on your local computer. You can use these archived business components of flexfields for troubleshooting purposes.

Alternatively, export the deployed artifacts using `exportMetadata WLST`.

Related Topics

- How Flexfield Deployment Status is Calculated
- How Flexfields Work with Oracle Application Cloud Architecture
- Considerations for Deploying a Descriptive Flexfield to a Sandbox
- Why did my flexfield changes not appear in the UI?

How Flexfield Deployment Status is Calculated

Flexfield deployment status indicates how the flexfield metadata definition in the Oracle Fusion Cloud Applications database relates to the Application Development Framework (ADF) business components residing in an Oracle Metadata Services (MDS) Repository.

The following aspects are important in understanding how flexfield deployment status is calculated:

- Settings that affect flexfield deployment status
- How deployment status is calculated

Settings That Affect Flexfield Deployment Status

If you have made a change to a flexfield and expect a changed deployment status, ensure that you have saved your changes. No settings affect flexfield deployment status.

How Deployment Status Is Calculated

If the flexfield definition has been edited through the Define Flexfields activity task flows, the status is Edited. The latest flexfield metadata definition diverges from the latest deployed flexfield definition. Any change, including if a value set used in a flexfield changes, changes the deployment status to Edited. If a flexfield has never been deployed, its status is Edited.

> **Note:** When an application is provisioned, the provisioning framework attempts to deploy all flexfields in that application.

If you deploy the flexfield to a sandbox successfully, the status is Deployed to Sandbox. The latest flexfield metadata definition in the application matches with the metadata definition that generated ADF business components in a sandbox MDS Repository. Whether the sandbox is active or not doesn't affect the deployment status. If the flexfield was deployed to a sandbox and hasn't been edited or redeployed to the mainline metadata since then, the status remains Deployed to Sandbox independent of whether the sandbox is active, or who's viewing the status.

If you deploy the flexfield successfully to the mainline metadata, the status is Deployed. The latest flexfield metadata definition in the application matches the metadata definition that generated ADF business components in a mainline MDS Repository. Change notifications are sent when a flexfield is deployed successfully to the mainline metadata.
If either type of deployment fails and that the current flexfield definition isn't deployed, the status is Error. The deployment error message gives details about the error. The latest flexfield metadata definition in the application likely diverges from the latest successfully deployed flexfield definition.

If the flexfield definition has been modified by a patch, the status is Patched. The latest flexfield metadata definition in the application diverges from the latest deployed flexfield definition. If the flexfield definition was Deployed before the

patch and then a patch was applied, the status changes to Patched. If the flexfield definition was Edited before the patch and then a patch was applied, the status remains at Edited to reflect that there are still changes (outside of the patch) that aren't yet in effect.

When a deployment attempt fails, you can access the Deployment Error Message for details.

Related Topics

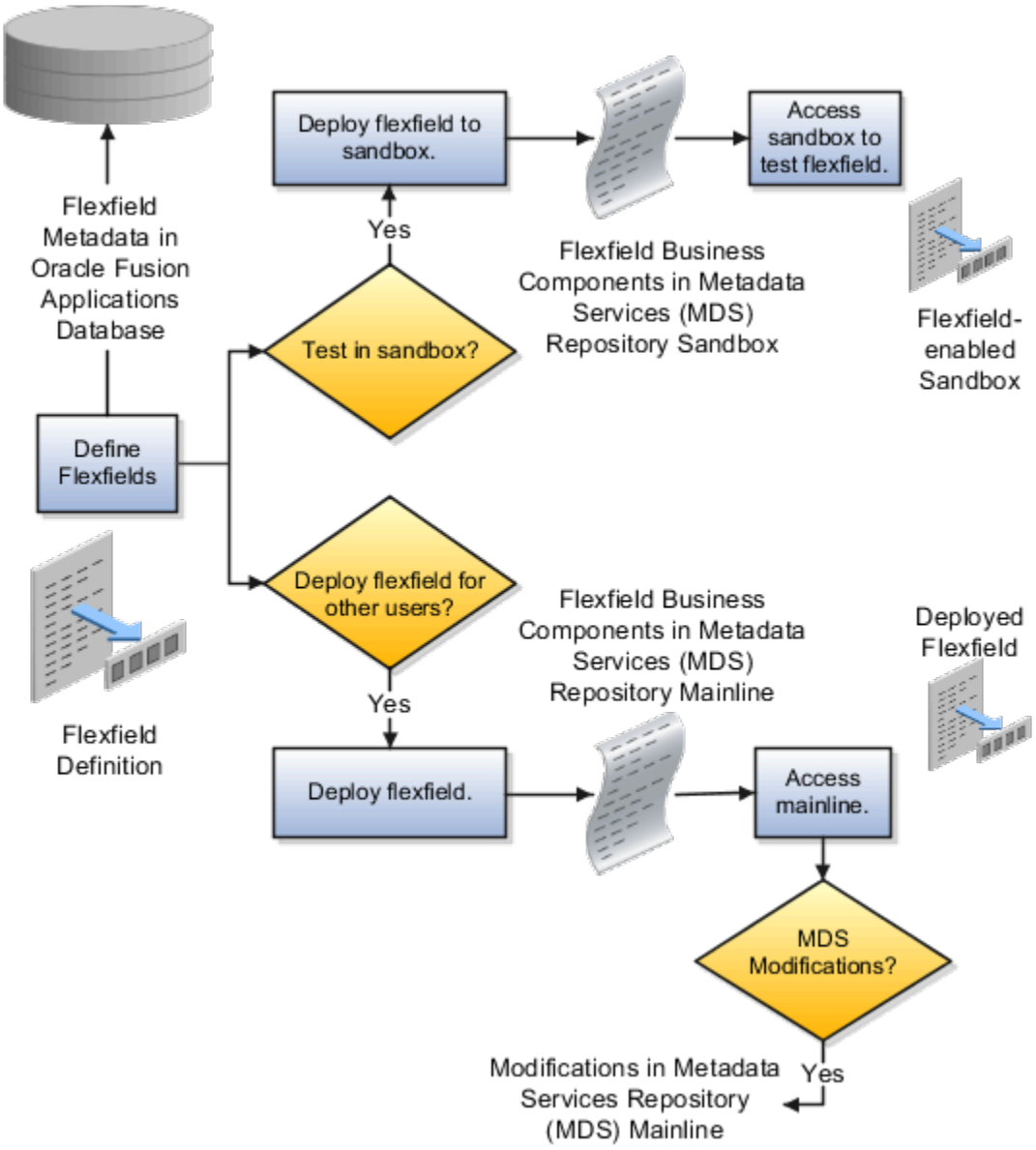
- How Flexfields Work with Oracle Application Cloud Architecture
- Considerations for Managing Extensible Flexfields

How Deploying a Flexfield-Enabled Sandbox Works with Mainline Metadata

When you deploy a flexfield to a sandbox, the flexfield definition corresponds to the flexfield metadata definition in the Oracle Fusion Cloud Applications database. When the flexfield is ready for use, it must be deployed to the mainline metadata.

A flexfield-enabled sandbox uses the following components.

- Flexfield metadata in the Fusion Applications database
- Flexfield business components in a sandbox Oracle Metadata Services (MDS) repository
- User interface modifications for the flexfield in the mainline MDS repository



Sandbox Metadata Services Repository Data

Deploying the flexfield to a sandbox generates the Application Development Framework (ADF) business components of a flexfield in a sandbox MDS Repository for testing in isolation.

> **CAUTION:** Don't modify flexfield segment display properties using Page Composer in a flexfield sandbox as these changes are lost when you deploy your flexfield to the mainline metadata.

Mainline Metadata Services Repository Data

The Oracle Fusion Cloud Applications database stores the single source of truth about a flexfield. When the flexfield is deployed, the ADF business component objects that implement the flexfield in the run time user interface are generated in the mainline MDS Repository from this source.

Related Topics

- How Flexfield Deployment Status is Calculated

Considerations for Deploying a Descriptive Flexfield to a Sandbox

You can deploy and test the behavior of a descriptive flexfield in the flexfield-enabled sandbox. Use the **Manage Descriptive Flexfields** task to change the flexfield definition, if required.

When you deploy a descriptive flexfield to a sandbox, the process reads the metadata about the segments from the database. It generates ADF Business Components artifacts for flexfields based on the definition, and stores the generated artifacts in the sandbox.

You can't deploy your changes in value sets, key flexfields, and extensible flexfields to your sandbox. You must deploy them directly to the mainline environment. However, if you're making changes to any descriptive flexfield, you must deploy your flexfield to the sandbox and test your changes before publishing your sandbox. After you deploy a descriptive flexfield to a sandbox, you must sign out and sign back in to the application to see your changes.

Note: You can deploy a descriptive flexfield to a sandbox using the **Manage Descriptive Flexfields** task only.

Value Sets

Overview of Value Sets

A value set is a group of valid values that you assign to a flexfield segment to control the values that are stored for business object attributes.

A user enters a value for an attribute of a business object while using the application. The flexfield validates the value against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five-digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

Note: Ensure that changes to a shared value set are compatible with all flexfields segments using the value set.

The following aspects are important in understanding value sets:

- Managing value sets
- Validation
- Security
- Precision and scale
- Usage and deployment
- Protected value set data

Managing Value Sets

To open the Manage Value Sets page, use the Manage Value Sets task. You can also use the Manage Descriptive Flexfields and Manage Extensible Flexfields tasks for configuring a segment, including its value set. To open the Manage Values page, select the value set from the Manage Value Sets page, and click **Manage Values**. Alternatively, click **Manage Values** from the Edit Value Set page.

Validation

The following types of validation are available for value sets:

- Format only, where users enter data instead of selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set
- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set doesn't present a list of valid values to users. If required, you may add table validated value sets to the list of available value sets available for configuration.

For a dependent value set, you must assign an existing independent value set to it. You can’t assign a value set whose validation type is Dependent.

> **Note:** For the Accounting Key Flexfield value sets, you must use independent validation only. If you use other validations, you can't use the full chart of accounts functionality, such as data security, reporting, and account hierarchy integration.

Security

Value set security only works in conjunction with usage within flexfield segments. You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment users can view or modify.

The application of value set security has the following conditions:

- At the value set level: The value set is the resource secured by data security policies. If a value set is secured, every usage of it in any flexfield is secured. Disabling security for individual usages of the same value set isn't possible.
- Applies to independent, dependent, or table-validated value sets.
- Applies mainly when data is being created or updated, and to key flexfield combinations tables for query purposes. Value set security doesn't determine which descriptive flexfield data is shown upon querying.
- Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

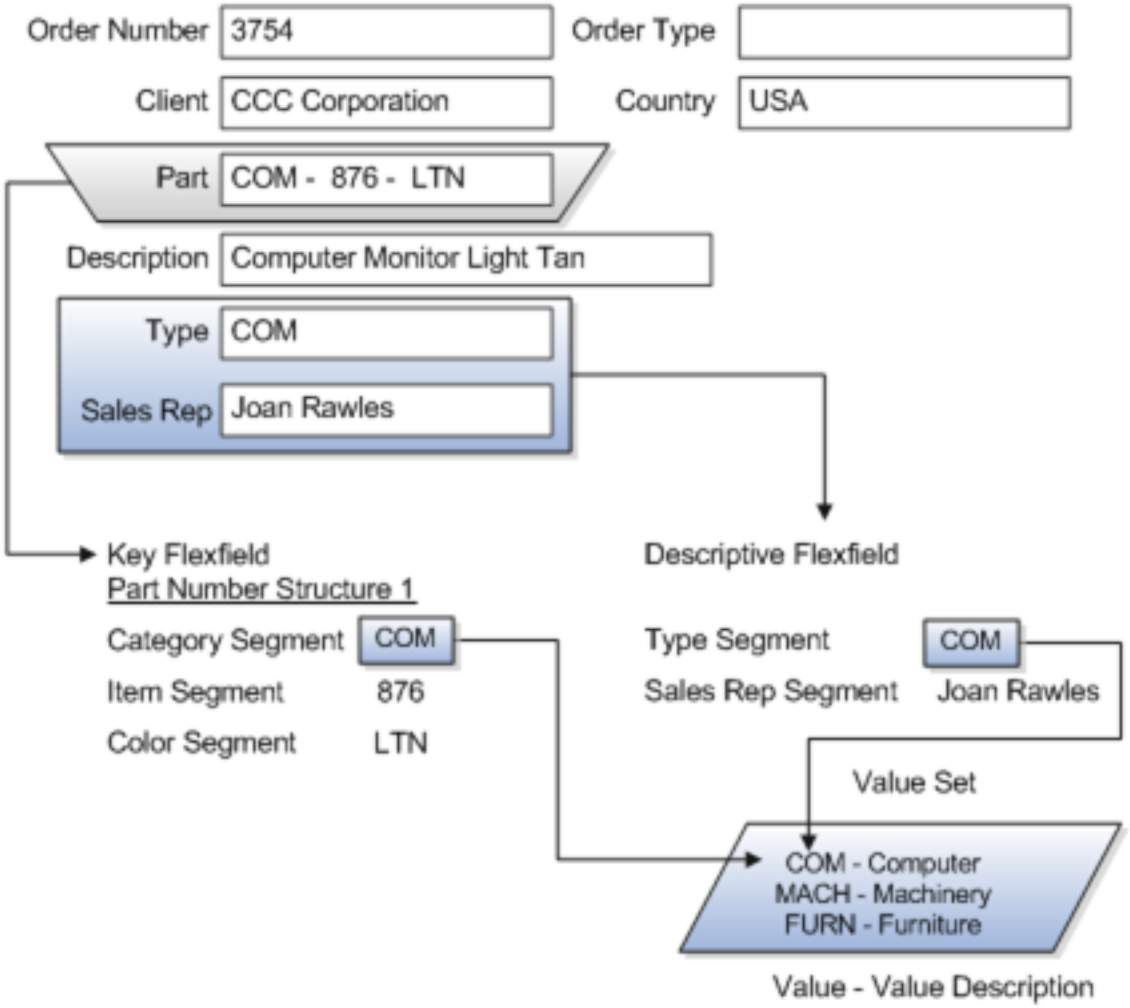
For key flexfields, the attributes in the view object corresponding to the account combination ID, structure instance number (SIN), and data set number (DSN) can't be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the account combination segment is the common attribute.

Precision and Scale

If the data type of a value set is Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

Usage and Deployment

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.



For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

Protected Value Set Data

Application developers may mark some value sets as protected, indicating that you can't edit them.

You can edit only value sets that are not marked as protected. You can't edit or delete protected value sets. If the value set type supports values (such as independent, dependent or subset value sets), then you can't add, edit, or delete values.

> **Note:** References to protected value sets aren't restricted. Value sets, protected or not, may be assigned to any flexfield segment. Likewise, other value sets may reference protected value sets; for example, an unprotected dependent value set may reference a protected independent value set.

Related Topics

- How Flexfields and Value Sets Work Together
- Why can't I edit my flexfield or value set configuration?
- What's the difference between a lookup type and a value set?
- Default Segment Values
- Chart of Accounts Components

Validation Type Options for Value Sets

Validation and usage of value sets determine where and how users access valid values for attributes represented by flexfield segments.

> **Tip:** As a flexfield guideline, define value sets before configuring the flexfield, because you can assign value sets to each segment as you configure a flexfield. With descriptive and extensible flexfield segments, you can create value sets when adding or editing a segment on the UI where the flexfield appears.

The following aspects are important in defining value sets:

- Value sets for context segments
- Format-only validation
- Interdependent value sets
- Table validation
- Range
- Security
- Testing and maintenance

Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets.

You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context's column length. If you use a table value set, the value set can't reference flexfield segments in the value set's WHERE clause, other than the flexfield segment to which the value set is assigned.

Format Only Validation

You can use the format only validation type to enter any value as long as it meets your specified formatting rules. The value must not exceed the maximum length specified for that value set, and it must meet any format requirements for

that value set. For example, if the value set permits only numbers, you can enter the value 456 for a value set with a maximum length of three or more, but not the value ABC.

You can also define a range of valid values for your value set by using the Minimum Value and Maximum Value fields. After you've defined a range of values, you can't define a new valid value that falls outside this range. For example, you might create a value set with a number type format where the user can enter only the values between 0 and 100.

> **Note:** For value sets with the value data type of Character, you can enforce minimum and maximum values only if the value set code ends with `_VALIDATE_CHAR_MINMAX`.

Interdependent Value Sets

Use an independent value set to validate data against a list that isn't stored in an application table, and not dependent on a subset of another independent value set. You can't specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. Use a dependent value set to limit the list of values for a given segment based on the value that the user has defined for a related independent segment. The available values in a dependent list and the meaning of a given value depend on which value was selected for the independently validated segment.

For example, you could define an independent value set of the states in the USA with values such as CA, NY, and so on. Then you define a dependent value set of cities in the USA with values such as San Francisco and Los Angeles that are valid for the independent value CA. Similarly, New York City and Albany are valid for the independent value NY. In the UI, only the valid cities can be selected for a given state.

Because you define a subset value set from an existing independent value set, you must define the independent value set first. Users don't have to select a value for another segment first to have access to the subset value set.

Independent, dependent, and subset value sets require a user-defined list of valid values. Use the Manage Values page to create and manage a value set's valid values and the order in which they appear.

> **Tip:** You can configure the Manage Value Sets page to capture additional attributes for each valid value by adding context-sensitive segments in a new context for FND_VS_VALUES_B descriptive field.

Table Validation

Typically, you use a table-validated set when the values you want to use are already maintained in an application table, such as a table of supplier names. Specify the table column that contains the valid value. You can optionally specify the description and ID columns, a WHERE clause to limit the values to use for your set, and an ORDER BY clause.

If you specify an ID column, then the flexfield saves the ID value, instead of the value from the value column, in the associated flexfield segment. If the underlying table supports translations, you can enable the display of translated text by basing the value set's value column on a translated attribute of the underlying table. You should also define an ID column that's based on an attribute that isn't language-dependent so that the value's invariant ID (an ID that doesn't change) is saved in the transaction table. The run time displays the corresponding translated text from the value column for the run time session's locale.

Table validation lets you enable a segment to depend on multiple prior segments in the same context structure. You can't reference other flexfield segments in the table-validated value set's WHERE clause. Which means, the WHERE clause can't reference SEGMENT.segment_code or VALUESET.value_set_code.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it doesn't have bind variables. If it has bind variables, the assumption is that

the values are unique in the value set. If you use table validated value sets for key flexfields, then you can't use all integration options supported for key flexfields, such as:

- Data security
- Oracle Transactional Business Intelligence (OTBI)
- Extended Spread Sheet Database (ESSbase)
- Tree or hierarchy integration

To use these integration options for key flexfields, you must use independent value sets only.

Range

In the case of format, independent, or dependent value sets, you can specify a range to limit which values are valid. You can specify a range of values that are valid within a value set. You can also specify a range validated pair of segments where one segment represents the low end of the range and another segment represents the high end of the range.

For example, you might specify a range for a format-only value set with format type Number where the user can enter only values between 0 and 100.

Security

In the case of independent and dependent values, you can specify that data security be applied to the values in segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment users can view or modify.

To enable security on a value set, specify a database resource, typically the code value for the value set. Using the Manage Database Security Policies task, specify conditions, such as filters or SQL predicates, and policies that associate roles with conditions. You can use a filter for simple conditions. For more complex conditions, use a SQL predicate.

Value set data security policies and conditions differ from data security conditions and policies for business objects in the following ways:

- You can grant only read access to users. You can't specify any other action.
- When defining a condition that's based on a SQL predicate, use VALUE, VALUE_NUMBER, VALUE_DATE, VALUE_TIMESTAMP, or VALUE_ID to reference the value from a dependent, independent, or subset value set. For table value sets, use a table alias to define the table, such as &TABLE_ALIAS category=70.

When you enable security on table-validated value sets, the security rule that's defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set must not assume anything about the bind variables. Instead the whole list of values must be available and you write the rule, for example, to permit x, or to permit y and z. By default in data security, all values are denied and show only rows to which access has been provided.

Testing and Maintenance

You don't have to define or maintain values for a table-validated value set, as the values are managed as part of the referenced table or independent value set, respectively.

You can't manage value sets in a sandbox.

When you change an existing value set, the deployment status for all affected flexfields changes to Edited. You must redeploy all flexfields that use that value set to make the flexfields reflect the changes. In the UI pages for managing value sets, the value set's usages show which flexfields are affected by the value set changes.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select **Translatable**. This doesn't require you to provide translated values now, but you can't change this option if you decide to provide them later.

Related Topics

- Considerations for Bind Variables in Table-Validated Value Sets
- What happens if a value set is security enabled?
- Add Attributes to the Manage Value Sets Page

Considerations for Planning Value Sets

The value sets you create and configure depend on the valid values of the business object attributes that use the value sets. When creating value sets, you first provide a name and description, and then define the valid values.

The following aspects are important in planning value sets:

- List of values
- Plain text
- Value ranges
- Value format specification
- Security

List of Values

You can use one of the following types of lists to specify the valid values for a segment:

- Table column
- User-defined list. Also include a sub list.
- Dependent user-defined list

If the valid values exist in a table column, use a table value set to specify the list of values. To limit the valid values to a subset of the values in the table, use a SQL WHERE clause. Table value sets also provide some advanced features, such as enabling validation depending on other segments in the same structure.

Use an independent value set to specify a user-defined set of valid values. For example, you can use an independent value set of Mon, Tue, Wed, and so forth to validate the day of the week. You can also specify a subset of an existing independent value set as the valid values for a segment. For example, if you have an independent value set for the days of the week, then a weekend subset can comprise entries for Saturday and Sunday.

Use a dependent value set when the available values in the list and the meaning of a given value depend on which independent value was selected for a previously selected segment value. For example, the valid holidays depend on which country you're in. A dependent value set is a collection of value subsets, with one subset for each value in a corresponding independent value set.

For lists of values type value sets, you can additionally limit the valid values that an end user can select or enter by specifying format, minimum value, and maximum value. For list of values type value sets, you can optionally implement value set data security. If the applications are running in different locales, you might need to provide different translations for the values and descriptions.

Plain Text

Use a format-only value set when you want to allow users to enter any value, as long as that value conforms to formatting rules. For example, if you specify a maximum length of 3 and numeric-only, then end users can enter 456,

but not 4567 or 45A. You can also specify the minimum and maximum values, whether to align the text to either side, and whether to zero-fill. With a format-only value set, no other types of validation are applied.

Value Ranges

You can use either a format-only, independent, or dependent value set to specify a range of values. For example, you might create a format-only value set with Number as the format type where the end user can enter only the values between 0 and 100. Or, you might create a format-only value set with Date as the format type where the end user can enter only dates for a specific year, such as a range of 01-JAN-93 to 31-DEC-93. Because the minimum and maximum values enforce these limits, you need not define a value set that contains each of these individual numbers or dates.

Value Format

Flexfield segments commonly require some kind of format specification, regardless of validation type. Before creating a value set, consider how you will specify the required format.

The following table shows options for validation type and value data type.

Option	Description
Value data type	Character, Number, Date, Date Time.
Value subtype	Text, Translated text, Numeric digits only, Time (20:08), Time (20:08:08). An additional data type specification for the Character data type for the Dependent, Independent, and Format validation types.
Maximum length	Maximum number of characters or digits for Character data type.
Precision	Maximum number of digits the user can enter.
Scale	Maximum number of digits that can follow the decimal point.
Uppercase only	Lowercase characters automatically changed to uppercase.
Zero fill	Automatic text alignment and zero-filling of entered numbers (affects values that include only the digits 0-9).

Note: You can't change the text value data type to a translated text value subtype after creating a value set. If there is any chance you may need to translate displayed values into other languages, choose Translated text. Selecting the Translated text subtype doesn't require you to provide translated values.

Value Sets for Context Segments

You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context's column length. If you use a table value set, the value set can't reference flexfield segments in the value set's WHERE clause other than the flexfield segment to which the value set is assigned.

Security

When enabling security on a value set, the data security resource name is an existing value set or one that you want to create. The name typically matches the code value for the value set. You can't edit the data security resource name after you save your changes.

Related Topics

- Overview of Value Sets
- How Flexfields and Value Sets Work Together
- Validation Type Options for Value Sets
- Default Segment Values
- What's the difference between a lookup type and a value set?

Considerations for Bind Variables in Table-Validated Value Sets

After you assign a value set to a flexfield, you can use bind variables in the WHERE clause.

These bind variables refer to flexfield elements:

- `:{SEGMENT.<segment_code>}`
- `:{CONTEXT.<context_code>;SEGMENT.<segment_code>}`
- `:{VALUESET.<value_set_code>}`
- `:{FLEXFIELD.<internal_code>}`
- `:{PARAMETER.<parameter_code>}`

Segment Code

`:{SEGMENT.<segment_code>}`

This bind variable refers to the ID or value of a segment where `<segment_code>` identifies the segment. Where referring to the ID, the value set is ID-validated. Where referring to the value, the value set isn't ID-validated. The data type of the bind value is the same as the data type of the segment's column.

For both descriptive and extensible flexfields, the segment must be in the same context as the source segment. The source segment contains the WHERE clause. For descriptive flexfields, if the segment is global, then the source segment must be global.

The segment must have a sequence number that's less than the sequence number of the target segment with this bind variable. A matching segment must exist in the current flexfield context.

This bind variable is useful when the set of valid values depends on the value in another segment. For example, the values to select from a CITIES table might depend upon the selected country. If SEGMENT1 contains the country value, then the WHERE clause for the CITIES table might be `<country_code> = :{SEGMENT.SEGMENT1}`.

Context Code

`:{CONTEXT.<context_code>;SEGMENT.<segment_code>}`

This bind variable, which is valid only for extensible flexfields, refers to the ID (if the value set is ID-validated) or value (if not ID-validated) of a segment that's in a different context than the target segment (the segment with the WHERE clause).

- The `<context_code>` identifies the context and must be in the same category or in an ancestor category. It can't be a multiple-row context.
- The `<segment_code>` identifies the segment. The data type of the bind value is the same as the data type of the segment's column.

Note: The target segment should appear in the UI after the source segment to ensure the source segment has a value. If the target segment's context is a single-row context, the source and target segments must be on separate pages and the target page must follow the source page.

The framework of extensible flexfields doesn't perform any additional validation related to mismatched values for segments defined with cross context bind parameters. Administrators must populate the correct pair of segment values.

This bind variable is useful when the set of valid values depends on the value of a segment in another context. For example, the values to select from a CERTIFICATION table for a segment in the Compliance and Certification context might depend on the value of the country segment in the Manufacturing context.

Value Set Code

`:{VALUESET.<value_set_code>}`

This bind variable refers to the ID (if the value set is ID-validated) or value (if not ID-validated) of the segment that's assigned to the value set that's identified by the `value_set_code`. The data type of the bind value is the same as the data type of the segment's column.

The segment must have a sequence number that's less than the sequence number of the segment with this bind variable. If more than one segment is assigned to the value set, the closest prior matching segment will be used to resolve the bind expression. A matching segment must exist in the current flexfield context.

This bind variable is useful when the set of valid values depends on the value in another segment and that segment code can vary, such as when the value set is used for more than one context or flexfield. For example, the values to select from a CITIES table might depend upon the selected country. If the value set for the segment that contains the country value is COUNTRIES, then the WHERE clause for the CITIES table might be `<country_code> = :{VALUESET.COUNTRIES}`.

Flexfield Internal Code

`:{FLEXFIELD.<internal_code>}`

This bind variable refers to an internal code of the flexfield in which the value set is used, or to a validation date. The internal_code must be one of the following:

- APPLICATION_ID - the application ID of the flexfield in which this value set is used. The data type of APPLICATION_ID and its resulting bind value is NUMBER.
- DESCRIPTIVE_FLEXFIELD_CODE - the identifying code of the flexfield in which this value set is used. The data type of DESCRIPTIVE_FLEXFIELD_CODE and its resulting bind value is VARCHAR2. Note that you use this string for both descriptive and extensible flexfields.
- CONTEXT_CODE - the context code of the flexfield context in which this value set is used. The data type of CONTEXT_CODE and its resulting bind value is VARCHAR2.

- SEGMENT_CODE - the identifying code of the flexfield segment in which this value set is used. The data type of SEGMENT_CODE and its resulting bind value is VARCHAR2.
- VALIDATION_DATE - the current database date. The data type of VALIDATION_DATE and its resulting bind value is DATE.

Flexfield Parameters

```
:{PARAMETER.<parameter_code>}
```

This bind variable refers to the value of a flexfield parameter where parameter_code identifies the parameter. The data type of the resulting bind value is the same as the parameter's data type.

> **Note:** You can't assign a table value set to a context segment if the WHERE clause uses VALUESET.value_set_code or SEGMENT.segment_code bind variables.

Related Topics

- Create and Edit Table-Validated Value Sets Based on Lookups

Create and Edit Table-Validated Value Sets Based on Lookups

While creating and editing value sets, use a predefined list of values that are stored in an application table.

You can specify which table you want to use, along with a WHERE clause to limit the values you want to use for your set. For example, let's use the FND_LOOKUPS view as the basis for a table-validated value set. The lookup meaning corresponds to the **Value Column Name** field and the lookup description corresponds to the **Description Column Name** field.

Create a Value Set Based on a Lookup

1. In the Setup and Maintenance work area, go to the **Manage Value Sets** task.
2. On the Manage Value Sets page, click the **Create** icon.
3. On the Create Value Set page, enter these values:

Field	Value
Value Set Code	SAMPLE_VALUE_SET_CODE
Description	Sample lookup-based table validated value set
Module	Oracle Middleware Extensions for Applications
Validation Type	Table
Value Data Type	Character

4. In the Definition section, enter these values:

Field	Value
FROM Clause	FND_LOOKUPS
Value Column Name	Meaning
Description Column Name	Description
Start Date Column Name	start_date_active
End Date Column Name	end_date_active
Enabled Flag Column Name	'Y'
ID Column Name	lookup_code
WHERE Clause	lookup_type = 'SAMPLE_LOOKUP_TYPE'
ORDER BY Clause	display_sequence, meaning

5. Click **Save and Close**.

Edit a Value Set Based on a Lookup

1. In the Setup and Maintenance work area, go to the **Manage Value Sets** task.
2. On the Manage Value Sets page, use the Search text field to search for a value set.
3. Select a value set and click the **Edit** icon.
4. On the Edit Value Set page, modify the existing values.
5. Click **Save and Close**.

Related Topics

- How do I update existing setup data?

Add Attributes to the Manage Value Sets Page

You can add attributes to independent, dependent, and subset value sets. The attributes appear on the Manage Value Sets page where you can store additional information about each valid value. To display attributes, you must programmatically modify the application.

To add attributes and subsequently view them on the Manage Value Sets page, perform the following steps:

1. Using the Manage Descriptive Flexfields task, find the FND_VS_VALUES_B flexfield and open it for editing.
2. Click **Manage Contexts**.

3. Create a new context and use the value set code for the context code.
4. Add new attributes as context-sensitive segments and save the changes.
5. Deploy FND_VS_VALUES_B to run time.
6. Sign out and sign back in.
7. Open the Manage Value Sets page to view the new attributes.

Import Value Set Values

You can import a file containing values that you want to edit or add to a given independent or dependent value set.

For example, uploading hundreds of values might be more efficient than creating them individually using the **Manage Value Sets** task. However, for just a few values, it might be quicker to perform the relevant tasks. Here are a few things you need to keep in mind while creating these files:

- Use a vertical bar or pipe (|) as a delimiter between fields for both the header and the value rows.
- As per the Oracle Fusion Cloud WebCenter Content specification, set the file encoding to UTF-8 without the Byte Order Mark (BOM).
- Make sure that the first line in the file is a header line, and the files look exactly the same as shown in the sample file.

Here's a sample file for value set value. You can see the header values at the beginning of the file, followed by the line entries of the two value set codes that are to be imported.

```
VALUESETCODE|VALUE|ENABLEDFLAG
FLEX_KFF1_IND_CHR_L10_ZEROFILL|5000|Y
FLEX_KFF1_IND_CHR_L10_ZEROFILL1|5001|N
```

To import value set values, do these tasks:

1. Create a flat file containing the values in the value set that you want to add or update.

   When creating the file, you must specify an existing value set code to which you want to add values or edit existing values. If the value set does not exist, add the value set using the appropriate **Manage Value Sets** task in the Setup and Maintenance work area.
2. Upload the flat file to the content repository using the File Import and Export page.
3. Import the file using the appropriate **Manage Value Sets** task in the Setup and Maintenance work area. To import the file, do these tasks:
   a. In the Manage Value Sets page, click **Actions** > **Import Related Values**.
   b. In the **Account** field, select the user account containing the flat file.
   c. In the **Related Value Set File Name** field, enter the name of the related value set file you uploaded using the File Import and Export page.
   d. In the **Related Values File Name** field, enter the name of the related values file you uploaded using the File Import and Export page.
   e. Click **Upload**.

> **Note:** Alternatively, you can import the file using either of the following methods:
> - Run the Upload Value Set Values scheduled process.
> - Use the Applications Core Metadata Import web service. For more information on the Applications Core Metadata Import web service, see the SOAP Web Services guide for your cloud services.

Related Topics

- Requirements for Flat Files to Upload Value Set Values
- Overview of Files for Import and Export
- Upload Value Set Values Process

Import Value Set Values Using Web Services

As an alternative to using the import option on the Manage Value Sets page, you can use the FndManageImportExportFilesService web service to import value set values into an application. The web service uses the valueSetValuesDataLoader method.

Prerequisite

Ensure that the web service `FndManageImportExportFilesService` is added to the Manage Application Flexfield Value Set entitlement. Use the Security Console to perform this configuration on Oracle Entitlements Server. While configuring the web service, provide the following details:

- Resource type: WebserviceResourceType
- Display name: ImportExport
- Name: http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/FndManageImportExportFilesService#*
- Entitlement (In Default Policy Domain): Manage Application Flexfield Value Set
- Security policy: oracle/wss11_saml_or_username_token_with_message_protection_service_policy

Importing Value Set Values

To import value set values:

1. Perform the following substeps to generate keystore for the security policy "oracle/wss11_saml_or_username_token_with_message_protection_service_policy":
    a. Generate keystore using the command `keytool -genkeypair -keyalg RSA -alias mycompkey -keypass <password> -keystore mycompclient-keystore.jks -storepass <password> -validity 3600.`
    b. Access the WSDL using the URL `http://<host>:<port>/fndAppCoreServices/FndManageImportExportFilesService?wsdl` through a web browser, and get the public key `<wsdl:service>/<wsdl:port>/<wsa:EndpointReference>/<wsid:Identity>/<dsig:keyInfo>/<dsig:X509Data>/<dsig:X509Certificate>`. Then, enclose it with `---- BEGIN CERTIFICATE ----` and `---- END CERTIFICATE ----` and save it to a file by name **cdrmpk.cer**.
    c. Store the key information in the truststore using the command `keytool -importcert -alias cdrmkey -file cdrmpk.cer -keystore mycompclient-keystore.jks -storepass <password>.`
2. Access the WSDL page using the browser of your choice.
3. Export and save the associated security certificates **Verisign Class 3 Public Primary Certification Authority - G5** and **Verisign Secure Server CA - G3**.
4. Use the following command to import the saved certificates into the trust store of the client computer.

```
keytool -importcert -keystore <truststore> -storepass <truststorepassword> -file <file location where
 the mentioned certificate is stored> -alias <alias for certificate>
```

5. Run the following command to generate the JAX-WS proxy for the `FndManageImportExportFilesService` web service.

```
C:\Program Files\Java\jdk1.7.0_04\bin>wsimport
 -s "d:\wsimport\FndManageImportExport"
 -d "d:\wsimport\FndManageImportExport" http://<host>:<port>/fndAppCoreServices/
FndManageImportExportFilesService?wsdl

 parsing WSDL...

 Generating code...

 Compiling code...
```

6. Save the generated code as a JAR file and name it **FndManageImportExportProxy.jar**.
7. Use the following code to create another JAR file to initiate the web service:

```
package com.oracle.xmlns.oracle.apps.fnd.applcore.webservices;

import com.sun.xml.ws.developer.WSBindingProvider;

import java.io.File;
import java.io.IOException;

import java.util.List;

import java.util.Map;

import javax.xml.ws.BindingProvider;
import javax.xml.ws.WebServiceRef;

import javax.xml.ws.handler.Handler;

import oracle.webservices.ClientConstants;

import weblogic.wsee.jws.jaxws.owsm.SecurityPoliciesFeature;
// !THE CHANGES MADE TO THIS FILE WILL BE DESTROYED IF REGENERATED!
// This source file is generated by Oracle tools
// Contents may be subject to change
// For reporting problems, use the following
// Version = Oracle WebServices (11.1.1.0.0, build 130224.1947.04102)

public class FndManageImportExportFilesServiceSoapHttpPortClient
{
 @WebServiceRef
 private static FndManageImportExportFilesService_Service fndManageImportExportFilesService_Service;

 public static void main(String [] args)
 {
 System.setProperty("javax.net.ssl.trustStore","<location of truststore which is used in II) to import
 the certificates>");
 System.setProperty("javax.net.ssl.trustStorePassword", "<truststore password>");

 fndManageImportExportFilesService_Service = new FndManageImportExportFilesService_Service();
 SecurityPoliciesFeature securityFeatures =
 new SecurityPoliciesFeature(new String[] { "oracle/
wss11_username_token_with_message_protection_client_policy",
 });
 FndManageImportExportFilesService
 fndManageImportExportFilesService =
fndManageImportExportFilesService_Service.getFndManageImportExportFilesServiceSoapHttpPort
 (securityFeatures);
 // Add your code to call the desired methods.


 WSBindingProvider wsbp = (WSBindingProvider) fndManageImportExportFilesService;
 Map<String, Object> requestContext = wsbp.getRequestContext();
```

```
requestContext.put(ClientConstants.WSSEC_KEYSTORE_TYPE,"jks");
// Provide location of 'mycompclient-keystore.jks' which was created during Step I)
requestContext.put(ClientConstants.WSSEC_KEYSTORE_LOCATION,"/home/user1/mycompclient-keystore.jks");
requestContext.put(ClientConstants.WSSEC_KEYSTORE_PASSWORD,"<password>");
requestContext.put(ClientConstants.WSSEC_RECIPIENT_KEY_ALIAS,"cdrmkey");

//Provide user who is having permission to initiate the service
requestContext.put(WSBindingProvider.USERNAME_PROPERTY,"<username>");
requestContext.put(WSBindingProvider.PASSWORD_PROPERTY, "<password>");


String id = invokeUploadFiletoUCMMethod(fndManageImportExportFilesService);

if (id != null) {
invokevalueSetValuesDataLoader(fndManageImportExportFilesService, new Long(id));

}
}

static String invokeUploadFiletoUCMMethod(FndManageImportExportFilesService
fndManageImportExportFilesService) {

String response = null;
DocumentDetails document = new DocumentDetails();
ObjectFactory objfactory = new ObjectFactory();
document.setFileName(objfactory.createDocumentDetailsFileName("import_data.txt"));
// Provide UCM repository - if repository is fin/tax/import then suffix each value with $ as mentioned
here
document.setDocumentAccount(objfactory.createDocumentDetailsDocumentAccount("fin$/tax$/import$"));
document.setDocumentTitle(objfactory.createDocumentDetailsDocumentTitle("VS"));
document.setContentType(objfactory.createDocumentDetailsContentType("plain/text"));

try {

// Provide location of 'VS.txt' which contains ValueSet values data in prescribed format
byte[] content =
org.apache.commons.io.FileUtils.readFileToByteArray(new File("/home/user1/VS.txt"));

//System.out.println("File content:" + new String(content, "UTF-8"));
document.setContent(objfactory.createDocumentDetailsContent(content));

} catch (IOException e) {
System.out.println(e.getMessage());
}
catch(Exception e) {
System.out.println("Exception: "+e.getMessage());
}

try {
response = fndManageImportExportFilesService.uploadFiletoUCM(document);
System.out.println("Response: " + response);

} catch (ServiceException e) {
System.out.println(e.getMessage());
}

return response;
}

static void invokevalueSetValuesDataLoader(FndManageImportExportFilesService
fndManageImportExportFilesService,
Long id) {
String response;
try {
```

```
response = fndManageImportExportFilesService.valueSetValuesDataLoader(id);
System.out.println("Response: " + response);
} catch (ServiceException e) {
System.out.println(e.getMessage());
}
}
}
```

8. Save the generated output as a JAVA file and name it as **FndManageImportExportFilesServiceSoapHttpPortClient.java**.
9. Use the JAVA file to build a JAR file, and name it as **FndManageImportExportClient.jar**.
10. Use the following command to run the web service:

```
java -cp ./FndManageImportExportProxy.jar:./ws.api_1.1.0.0.jar:./FndManageImportExportClient.jar
 FndManageImportExportFilesServiceSoapHttpPortClient
```

Related Topics

- Import Value Set Values

Import Related Value Sets

You can import related value sets to your application by creating separate text files containing the related value set and related values. You can then upload these files to the Oracle Fusion Cloud WebCenter Content document repository.

Here are a few things you need to keep in mind while creating these files:

- Use a vertical bar or pipe (|) as a delimiter between fields for both the header and the value rows.
- As per the Oracle WebCenter Content specification, set the file encoding to UTF-8 without the Byte Order Mark (BOM).
- Make sure that the first line in the file is a header line, and the files look exactly the same as shown in the sample file.

Here's a sample file for related value set. You can see the header values at the beginning of the file, followed by the line entries of the two value set codes to be imported.

```
VALUE_SET_CODE1|VALUE_SET_CODE2|ENABLED_FLAG
FLEX_KFF1_IND_CHR_L10_ZEROFILL|FLEX_KFF1_IND_NUM_P6_S0|Y
FLEX_KFF1_IND_CHR_L10_ZEROFILL|FLEX_KFF1_IND_CHR_L2_STATES|N
```

Here's a sample file for related values. You can see the header values at the beginning of the file, followed by the line entries of the two value set codes to be imported.

```
VALUE_SET_CODE1|VALUE_SET_CODE2|VALUE1|VALUE2|ENABLED_FLAG
FLEX_KFF1_IND_CHR_L10_ZEROFILL|FLEX_KFF1_IND_NUM_P6_S0|1234567890|0|Y
FLEX_KFF1_IND_CHR_L10_ZEROFILL|FLEX_KFF1_IND_CHR_L2_STATES|1234567890|AK|Y
```

To import related value sets, do these tasks:

1. Create flat files containing the values and the related values in the value set that you want to add or update.

   When creating the files, you must specify an existing value set code and values. If the related value sets don't exist, add the related value sets using the appropriate **Manage Value Sets** task in the Setup and Maintenance work area.
2. Upload the flat files to the content repository using the File Import and Export page.
3. Import the files using the appropriate **Manage Value Sets** task in the Setup and Maintenance work area. To import the file, do these tasks:

a. In the Manage Value Sets page, click **Actions** > **Import Related Values**.
b. In the **Account** field, select the user account containing the flat file.
c. In the **Related Value Set File Name** field, enter the name of the related value set file you uploaded using the File Import and Export page.
d. In the **Related Values File Name** field, enter the name of the related values file you uploaded using the File Import and Export page.
e. Click **Upload**.

If you upload the related value set file along with the related values file, first the related value set file is processed and then the related value file is processed. If the relationship between two value sets doesn't exist then a new relationship is created in the FND_VS_RELATED_VALUES table. Otherwise, the Enabled column is updated.

Related Topics

- Overview of Files for Import and Export

Import Related Value Sets Using Web Services

You can use the FndManageImportExportFiles web service to import related value sets into the application. This web service internally uses the processRelatedSetValueData method to import the related value sets, and stores them in a metadata table.

Here are a few things you need to keep in mind while importing the related value sets.

- The related value sets and related value set values must be existing independent value sets.
- There must be an existing relationship between both the value sets in the FND_VS_RELATED_SETS table.
- If the relationship between these two value sets don't exist, then a new relationship is created in the FND_VS_RELATED_VALUES table or the ENABLED_FLAG column is updated.

Prerequisite

Make sure that the web service FndManageImportExportFilesService is added to the Manage Application Flexfield Value Set entitlement. Use the Security Console to complete this configuration on the Oracle Fusion Cloud Entitlements Server. Provide these details to configure the web service:

- Resource type: WebserviceResourceType
- Display name: ImportExport
- Name: http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/FndManageImportExportFilesService#*
- Entitlement (In Default Policy Domain): Manage Application Flexfield Value Set
- Security policy: oracle/wss11_saml_or_username_token_with_message_protection_service_policy

Import Related Value Sets

Do these steps to import related value sets.

1. Do these to generate the keystore for the security policy "oracle/wss11_saml_or_username_token_with_message_protection_service_policy".
    a. Generate the keystore using the command `keytool -genkeypair -keyalg RSA -alias mycompkey -keypass <password> -keystore mycompclient-keystore.jks -storepass <password> -validity 3600.`

b. Access the WSDL using this URL on a web browser: `http://<host>:<port>/fndAppCoreServices/FndManageImportExportFilesService?wsdl`, and get the public key `<wsdl:service>/<wsdl:port>/<wsa:EndpointReference>/<wsid:Identity>/<dsig:keyInfo>/<dsig:X509Data>/<dsig:X509Certificate>`.
c. Enclose the public key within `---- BEGIN CERTIFICATE ----` and `---- END CERTIFICATE ----` and save it to a file by name **cdrmpk.cer**.
d. Store the key information in the truststore using the command `keytool -importcert -alias cdrmkey -file cdrmpk.cer -keystore mycompclient-keystore.jks -storepass <password>`.

2. Access the WSDL page using the browser of your choice.
3. Export and save the associated security certificates:
   - Verisign Class 3 Public Primary Certification Authority - G5
   - Verisign Secure Server CA - G3
4. Use this command to import the saved certificates into the trust store of the client computer.

```
keytool -importcert -keystore <truststore> -storepass <truststorepassword> -file <file location where
 the mentioned certificate is stored> -alias <alias for certificate>
```

5. Run this command to generate the JAX-WS proxy for the FndManageImportExportFilesService web service.

```
C:\Program Files\Java\jdk1.7.0_04\bin>wsimport
 -s "d:\wsimport\FndManageImportExport"
 -d "d:\wsimport\FndManageImportExport" http://<host>:<port>/fndAppCoreServices/
FndManageImportExportFilesService?wsdl

 parsing WSDL...

 Generating code...

 Compiling code...
```

6. Save the generated code as a JAR file and name it FndManageImportExportProxy.jar.
7. Use the following code to create another JAR file to initiate the web service.

```
package com.oracle.xmlns.oracle.apps.fnd.applcore.webservices;
import com.sun.xml.ws.developer.WSBindingProvider;
import java.io.File;
import java.io.IOException;
import java.util.List;
import java.util.Map;
import javax.xml.ws.BindingProvider;
import javax.xml.ws.WebServiceRef;
import javax.xml.ws.handler.Handler;
import oracle.webservices.ClientConstants;
import weblogic.wsee.jws.jaxws.owsm.SecurityPoliciesFeature;
// !THE CHANGES MADE TO THIS FILE WILL BE DESTROYED IF REGENERATED!
// This source file is generated by Oracle tools
// Contents may be subject to change
// For reporting problems, use the following
// Version = Oracle WebServices (11.1.1.0.0, build 130224.1947.04102)
public class FndManageImportExportFilesServiceSoapHttpPortClient
{
 @WebServiceRef
 private static FndManageImportExportFilesService_Service fndManageImportExportFilesService_Service;
 public static void main(String [] args)
 {
 System.setProperty("javax.net.ssl.trustStore","<location of truststore which is used in II) to import
 the certificates>");
 System.setProperty("javax.net.ssl.trustStorePassword", "<truststore password>");
 fndManageImportExportFilesService_Service = new FndManageImportExportFilesService_Service();
 SecurityPoliciesFeature securityFeatures =
```

```
 new SecurityPoliciesFeature(new String[] { "oracle/
wss11_username_token_with_message_protection_client_policy",
 });

 FndManageImportExportFilesService
 fndManageImportExportFilesService =
fndManageImportExportFilesService_Service.getFndManageImportExportFilesServiceSoapHttpPort
 (securityFeatures);
 // Add your code to call the desired methods.
 WSBindingProvider wsbp = (WSBindingProvider) fndManageImportExportFilesService;
 Map<String, Object> requestContext = wsbp.getRequestContext();
 requestContext.put(ClientConstants.WSSEC_KEYSTORE_TYPE,"jks");
 // Provide location of 'mycompclient-keystore.jks' which was created during Step I)
 requestContext.put(ClientConstants.WSSEC_KEYSTORE_LOCATION,"/home/user1/mycompclient-keystore.jks");
 requestContext.put(ClientConstants.WSSEC_KEYSTORE_PASSWORD,"<password>");
 requestContext.put(ClientConstants.WSSEC_RECIPIENT_KEY_ALIAS,"cdrmkey");
 //Provide user who is having permission to initiate the service
 requestContext.put(WSBindingProvider.USERNAME_PROPERTY,"<username>");
 requestContext.put(WSBindingProvider.PASSWORD_PROPERTY, "<password>");
 String relatedvaluesetfileID = invokeUploadFiletoUCMMethod(fndManageImportExportFilesService,
 "relatedvaluesetfilename");
 String relatedvaluefileID = invokeUploadFiletoUCMMethod(fndManageImportExportFilesService,
 "relatedvaluefilename");

 if (relatedvaluesetfileID != null) {
 invokeRelatedValueSetValuesDataLoader(fndManageImportExportFilesService, new
 Long(relatedvaluesetfileID), new Long(relatedvaluefileID));
 }
 }
 static String invokeUploadFiletoUCMMethod(FndManageImportExportFilesService
 fndManageImportExportFilesService, String fileName) {
 String response = null;
 DocumentDetails document = new DocumentDetails();
 ObjectFactory objfactory = new ObjectFactory();
 document.setFileName(objfactory.createDocumentDetailsFileName("import_data.txt"));
 // Provide UCM repository - if repository is fin/tax/import then suffix each value with $ as mentioned
 here
 document.setDocumentAccount(objfactory.createDocumentDetailsDocumentAccount("fin$/tax$/import$"));
 document.setDocumentTitle(objfactory.createDocumentDetailsDocumentTitle("VS"));
 document.setContentType(objfactory.createDocumentDetailsContentType("plain/text"));
 try {
 // Provide location of 'relatedvaluesetfile.txt' which contains ValueSet values data in prescribed
 format
 byte[] content =
 org.apache.commons.io.FileUtils.readFileToByteArray(new File("/home/user1/" + fileName));
 //System.out.println("File content:" + new String(content, "UTF-8"));
 document.setContent(objfactory.createDocumentDetailsContent(content));
 } catch (IOException e) {
 System.out.println(e.getMessage());
 }
 catch(Exception e) {
 System.out.println("Exception: "+e.getMessage());
 }
 try {
 response = fndManageImportExportFilesService.uploadFiletoUCM(document);
 System.out.println("Response: " + response);
 } catch (ServiceException e) {
 System.out.println(e.getMessage());
 }
 return response;
 }
 static void invokeRelatedValueSetValuesDataLoader(FndManageImportExportFilesService
 fndManageImportExportFilesService,
 Long relatedvaluesetfileID, Long relatedvaluefileID) {
 String response;
 try {
```

```
response = fndManageImportExportFilesService.processRelatedSetValueData(relatedvaluesetfileID,
relatedvaluefileID);
System.out.println("Response: " + response);
} catch (ServiceException e) {
System.out.println(e.getMessage());
}
```

8. Save the generated output as a JAVA file and name it **FndManageImportExportFilesServiceSoapHttpPortClient.java**.
9. Use the JAVA file to build a JAR file, and name it **FndManageImportExportClient.jar**.
10. Use this command to run the web service.

```
java -cp ./FndManageImportExportProxy.jar:./ws.api_1.1.0.0.jar:./FndManageImportExportClient.jar
 FndManageImportExportFilesServiceSoapHttpPortClient
```

Requirements for Flat Files to Upload Value Set Values

You can import large volumes of value set value data from the content repository.

To upload value set values to the content repository, create a flat file containing values in the value set you want to add or update. You upload these flat files using the File Import and Export page.

General Requirements

The first line of the flat file must contain the column names for the value set value data, including all mandatory columns, and separated by the '|' (pipe) character. Each subsequent line should contain a row of data specified in the same order as the column names, also separated by the '|' character.

The requirements for creating flat files vary with the type of value sets:

- Independent value sets
- Dependent value sets

Independent Value Set

A flat file for uploading values for independent value sets must contain the mandatory columns. The following table lists the three mandatory columns and their data types.

Column Name	Data Type
`ValueSetCode`	VARCHAR2(60)
`Value`	VARCHAR2(150)
`Enabled Flag`	VARCHAR2(1), Y or N

Note: You can also specify optional columns.

Examples:

- To upload values to a COLORS independent value set with the minimum columns, you can use the following flat file:

```
ValueSetCode | Value | EnabledFlag
COLORS | Red | Y
COLORS | Orange | Y
COLORS | Yellow | Y
```

- To upload values to a STATES independent value set with more (optional) columns, you can use the following flat file:

```
ValueSetCode | Value | Description | EnabledFlag
STATES | AK | Alaska | Y
STATES | CA | California | Y
STATES | WA | Washington | Y
```

Dependent Value Sets

A flat file for uploading values for dependent value sets must contain the mandatory columns. The following table lists the four mandatory columns and their data types.

Column Name	Data Type
`Value Set Code`	VARCHAR2(60)
`Independent Value`	VARCHAR2(150)
`Value`	VARCHAR2(150)
`Enabled Flag`	VARCHAR2(1), Y or N

Note: You can also specify optional columns.

Example:

To upload values to a CITIES dependent value set (dependent on the STATES independent value set), you can use the following flat file:

```
ValueSetCode | IndependentValue | Value | EnabledFlag
CITIES | AK | Juneau | Y
CITIES | AK | Anchorage | Y
CITIES | CA | San Francisco | Y
CITIES | CA | Sacramento | Y
CITIES | CA | Los Angeles | Y
CITIES | CA | Oakland | Y
```

Additional Optional Columns

In addition to the mandatory columns, you can add optional columns. The following table lists the optional columns for both dependent and independent value sets.

Column Name	Type
`Translated Value`	VARCHAR2(150), for use in value sets that are translatable

Column Name	Type
Description	VARCHAR2(240)
Start Date Active	DATE, formatted as YYYY-MM-DD
End Date Active	DATE, formatted as YYYY-MM-DD
Sort Order	NUMBER(18)
Summary Flag	VARCHAR2(30)
Flex Value Attribute1 ... Flex Value Attribute20	VARCHAR2(30)
User-defined Value Attribute1 ... User-defined Value Attribute10	VARCHAR2(30)

Optional Columns to Support Descriptive Flexfields

You can also capture these additional columns on the value set values in the Manage Value Sets page. To capture these additional columns, you must configure the FND_VS_VALUES descriptive flexfield. This descriptive flexfield expects the context code to correspond to the value set code.

Column Name	Description
globalSegment1ApiName	This column corresponds to the API Name for a global segment defined in the FND_VS_VALUES descriptive flexfield.
contextSensitiveSegment1ApiName	This column corresponds to the API Name for a context sensitive segment defined in the FND_VS_VALUES descriptive flexfield.

Here's a sample file that contains the value set codes:

```
ValueSetCode|IndependentValue|IndependentValueNumber|IndependentValueDate|IndependentValueTimestamp|Value|
ValueNumber|ValueDate|ValueTimestamp|TranslatedValue|Description|EnabledFlag|StartDateActive|EndDateActive|
SortOrder|SummaryFlag| globalSegment1ApiName | contextSensitiveSegment1ApiName
VS1|||||DFF|||||Testing for WS updated|Y|2000-01-11|2000-01-2|1||seg1v1|ndseg1vs3
VS1|||||KFF|||||Testing for WS updated without segments|Y|2000-1-11|2000-01-22|1|seg1v2|nd1seg1vs4
```

Related Topics

- Import Value Set Values
- Overview of Files for Import and Export

Manage Values

Independent, dependent, and subset value sets require a user-defined list of valid values. Use the Manage Values page to create and manage values for a value set. You can also manage the order in which the value appears.

Create Values for a Value Set

1. In the Setup and Maintenance work area, go to the **Manage Value Sets** task.
2. Use the Search text field to search for a value set.
3. Select a value set and click **Manage Values**.
4. On the Manage Values page, click the **Create** icon and enter new values for the value set.
5. Click **Save and Close**.

Delete Values from a Value Set

1. In the Setup and Maintenance work area, go to the **Manage Value Sets** task.
2. Use the Search text field to search for a value set.
3. Select a value set and click **Manage Values**.
4. On the Manage Values page, click the **Delete** icon to delete a value from the value set.
5. Click **Save and Close**.

Upload Value Set Values Process

This process uploads a flat file containing value set values for flexfields. You can use the scheduled process to upload a file containing values you want to edit or add to an existing independent or dependent value set.

This process is useful for adding or updating large volumes of value set value data in an automated or recurring fashion. For example, you can upload a hundred values on a recurring basis when scheduled as a recurring process. This method could be more efficient than using the Import action in the Manage Value Sets tasks in the Setup and Maintenance work area. However, for a task of uploading a hundred values, it may be quicker to use the Import action in the relevant tasks.

Run this process from the Scheduled Processes Overview page. You can run it on a recurring basis whenever the flat file in the content repository account is updated.

You must create the flat file containing the values data, and upload the flat file to the content repository using the File Import and Export page.

> **Note:** Here are some alternate ways of doing this task:
>
> - Using the File Import and Export page. For more information, see *Export and Import of CSV File Packages*.
> - Using the SOAP web services or REST APIs. For more information, see the Value Sets REST Endpoints section in the *REST API for Common Features in Oracle Fusion Cloud Applications* guide.

Parameters

Flat File Name

Enter the name of the flat file you uploaded using the File Import and Export page.

Account

Select the user account containing the flat file in the content repository to upload.

Related Topics

- Import Value Set Values
- Export and Import of CSV File Packages
- REST API for Common Features in Oracle Fusion Cloud Applications
- What are scheduled processes?

Translation of Flexfield and Value Set Configurations

When you first configure a flexfield or segment, the **translatable** text you enter, such as prompts and descriptions, is stored as the text for all installed locales. You may then provide a translation for a particular locale.

If you don't provide a translation for a given locale, then the value that was first entered is used for that locale.

To translate the text for a particular locale, sign in with that locale, or use the **Settings and Actions** menu. Click your user image or name in the global header to open this menu, and select **Set Preferences** to translate the text for a particular locale. Then, update the translatable text in the flexfield using the Manage Descriptive Flexfields task, Manage Key Flexfields task, or Manage Extensible Flexfields task. Your modifications change the translated values only for the current session's locale.

After you complete the translations, deploy the flexfield.

You can define translations for a dependent value set or an independent value set, if the value set is of type Character with a subtype Translated text. You define the translations by setting the current session to the locale for which you want to define the translation. Then use the Manage Value Sets task to enter the translated values and descriptions for that locale.

For table-validated value sets, if the underlying table supports translations, use a translation view as the basis for a table-validated value set. You can set the **ID Column Name** field to the non-translated primary key and the **Value Column Name** field to the translated key.

Related Topics

- Considerations for Planning Value Sets
- Create and Edit Table-Validated Value Sets Based on Lookups

FAQs for Value Sets

What happens if a value set is security enabled?

Value set security is a feature that enables you to secure access to value set values based on the role of the user in the application.

As an example, suppose you have a value set of US state names. When this value set is used to validate a flexfield segment, and users can select a value for the segment, you can use value set security to restrict them to selecting only a certain state or subset of states based on their assigned roles in the application.

For example, Western-region employees may choose only California, Nevada, Oregon, and so on as valid values. They can't select non-Western-region states. Eastern-region employees may choose only New York, New Jersey, Virginia, and so on as valid values, but can't select non-Eastern-region states. Value set security is implemented using Oracle Fusion Cloud Applications data security.

How can I set a default value for a flexfield segment?

When you define or edit a flexfield segment, you pick a value from the assigned value set and set it as default.

You can set the default value for a descriptive flexfield segment to be a parameter. The mapped entity object attribute provides the initial default value for the segment.

You can set the default value to be a constant, if appropriate to the data type of the value set assigned to the segment.

In addition to an initial default value, you can set a derivation value for updating the attribute's value every time the parameter value changes. The parameter you select identifies the entity object source attribute. Any changes in the value of the source attribute during run time are reflected in the value of the segment.

If the display type of the segment is a check box, you can set whether the default value of the segment is checked or unchecked.

Related Topics

- Default Segment Values

Descriptive Flexfields

Overview of Descriptive Flexfields

Use descriptive flexfields to add attributes to business object entities, and define validation for them.

All the business object entities that you can use in the application are enabled for descriptive flexfields. However, configuring descriptive flexfields is an optional task.

Context

A descriptive flexfield can have only one context segment to provide context sensitivity. The same underlying database column can be used by different segments in different contexts.

For example, you can define a Dimensions context that uses the following attributes:

- ATTRIBUTE1 column for height
- ATTRIBUTE2 column for width
- ATTRIBUTE3 column for depth

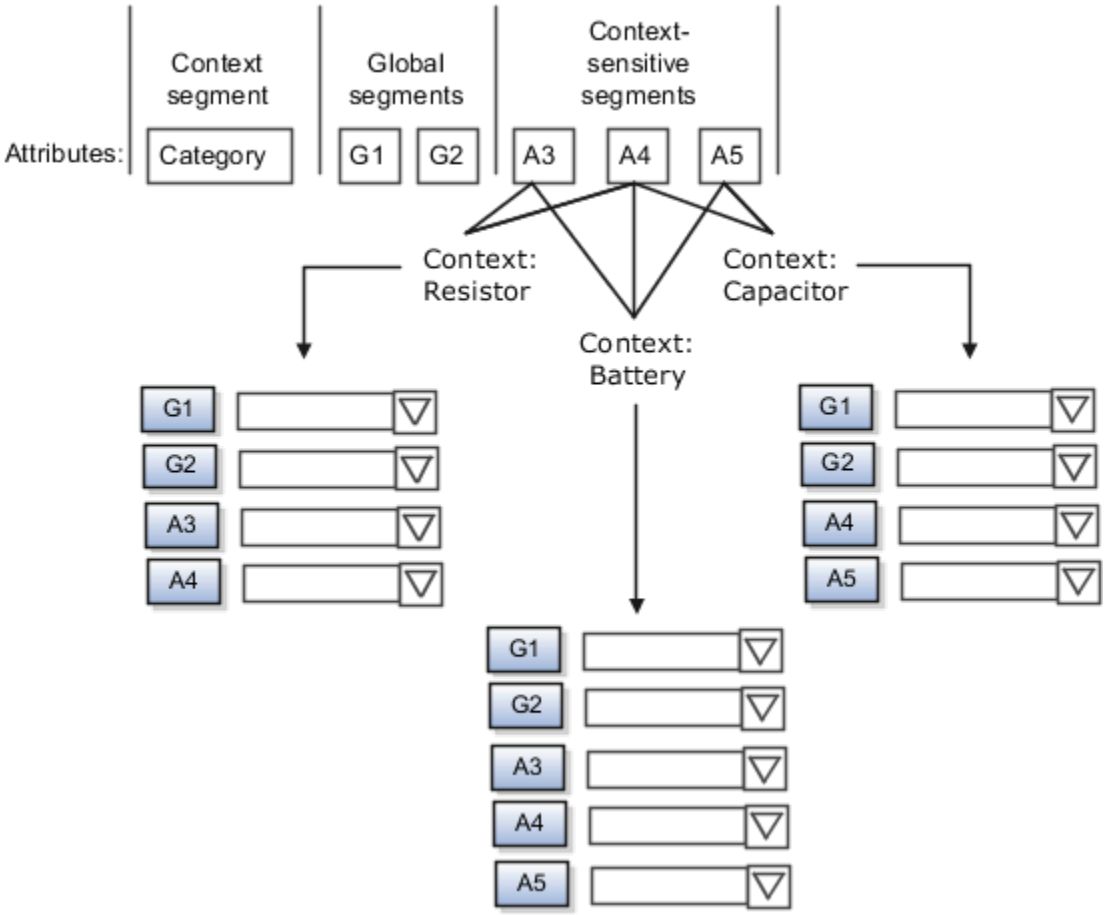
You can also define a Measurements context that uses the same columns for other attributes:

- ATTRIBUTE1 column for weight
- ATTRIBUTE2 column for volume
- ATTRIBUTE3 column for density

Segments and Contexts

The following table lists the different types of descriptive flexfield segments.

Segment Type	Run Time Appearance
Global segment	Always available
Context segment	Determines which context-sensitive segments are displayed
Context-sensitive segment	Displayed depending on the value of the context segment



Application development determines the number of segments available for configuring. During implementation, configure the flexfield by determining the following:

- Attributes to add using the available segments
- Context values
- The combination of attributes in each context

Value Sets

For each global and context-sensitive segment, you configure the values permitted for the segment. Based on it, the values that end users enter are validated, including interdependent validation among the segments.

Protected Descriptive Flexfield Data

Application developers may mark some data configurations in a descriptive flexfield as protected, indicating that you can't edit them.

Related Topics

- Considerations for Managing Descriptive Flexfields
- Overview of Value Sets
- Considerations for Managing Flexfields
- How can I access predefined flexfields?

Considerations for Planning Descriptive Flexfields

Once you have identified a flexfield to configure, plan the configuration. Make a list of UI pages and other artifacts that are affected by the configuration. Verify that you have the appropriate roles to view and configure the flexfields.

You can locate flexfields on a page using the **Settings and Actions** menu. Click your user image or name in the global header to open this menu, and select **Highlight Flexfields** to locate flexfields on a page. Once you have configured the flexfields, plan to deploy them for test and production users. Review the tools and tasks available for managing flexfields to add and edit flexfield segments.

Planning a descriptive flexfield can involve the following tasks:

1. Identify existing parameters.
2. Identify existing context values and whether the context value is derived.
3. Identify user-defined attributes and plan the descriptive flexfield segments, segment properties, and structure.
4. Plan validation rules.
5. Plan initial values.
6. Plan attribute mapping to Oracle Transactional Business Intelligence objects.

Identify Existing Descriptive Flexfield Parameters

Some descriptive flexfields provide parameters that can be used to specify the initial value of a descriptive flexfield segment. The parameter is external reference data, such as a column value or a session variable. For example, if a flexfield has a user email parameter, you can configure the initial value for a customer email attribute to be derived from that parameter.

Review the list of available parameters in the **Derivation Value** field in the Create Segment page for a descriptive flexfield. If you decide to use one of the parameters to set an initial value, select that parameter from the **Derivation Value** drop-down list when you add the descriptive flexfield segment.

Evaluate Whether the Context Value Is Derived

The context value for a descriptive flexfield might have been preconfigured to be derived from an external reference. For example, if the context is Marriage Status, then the value might be derived from an attribute in the employee business object. When the context value is derived, you might need to take the derived values and their source into consideration in your plan.

To determine whether the context value is derived, access the Edit Descriptive Flexfield task to view the list of configured context values for the flexfield. The Derivation Value field in the Context Segment region displays a list of available parameters. If context values have been preconfigured, see Oracle Fusion Cloud Applications Help for product-specific information about the use of those values.

Plan the Segments, Segment Properties, and Structure

Identify the user-defined attributes you need for a business object to determine the segments of the descriptive flexfield. Determine the segment properties such as the prompt, display type, or initial value.

The structure of the descriptive flexfield is determined by its global, context, and context-sensitive segments. Plan a global segment that captures an attribute for every instance of the business object. Plan a context for segments that depend on a condition of situation applying to a particular instance of the business object. Plan context-sensitive segments to capture attributes that are relevant in the context.

There's only one context segment available for descriptive flexfields. If you have more than one group of user-defined attributes where you could use the context segment, you will have to pick one group over the others, based on your company's needs and priorities, and add the other user-defined attributes as global segments.

Plan Validation Rules

Define each segment's validation rules and check if value sets exist for those rules or you must create new ones. If you must create a value set, you can create it either before configuring the flexfield or while creating or editing a segment.

When determining a segment's validation rules, consider the following questions:

- What is the data type - character, date, date and time, or number?
- Does the segment require any validation beyond data type and maximum length?
- Should a character type value be restricted to digits, or are alphabetic characters allowed?
- Should alphabetic characters automatically be changed to uppercase?
- Should numeric values be zero-filled?
- How many digits can follow the radix separator of a numeric value? In base ten numeric systems, the radix separator is decimal point.
- Does the value need to fall within a range?
- Should the value be selected from a list of valid values? If so, consider the following questions:
    - Can you use an existing application table from which to obtain the list of valid values, or do you need to create a list?
    - If you're using an existing table, do you need to limit the list of values using a WHERE clause?
    - Does the list of valid values depend on the value in another flexfield segment?
    - Is the list of valid values a subset of another flexfield segment's list of values?

Plan Initial Values

For every segment, list the constant value or SQL statement, if any, to use for the initial value of the user-defined attribute.

Plan How Segments Map to Oracle Transactional Business Intelligence Objects

You can extend descriptive flexfields into Oracle Transactional Business Intelligence (OTBI) for ad hoc reporting purposes. Determine the descriptive flexfield segments to be made available for reporting, and select the **BI Enabled** check box accordingly on the Manage Descriptive Flexfields page. You must run a process to extend the BI enabled segments into OTBI.

Depending on the reporting needs, you may map similar context-sensitive attributes from different contexts to the same attribute in OTBI. For example, there may be a segment tracking the Product Color attribute in different contexts

of a context sensitive descriptive flexfield. You can use segment labels to map these context-sensitive attributes together by defining a segment label and updating the BI Label list accordingly.

Related Topics

- Flexfield Segment Properties
- Overview of Value Sets
- Considerations for Enabling Descriptive Flexfield Segments for Business Intelligence
- Default Segment Values
- Overview of Transactional Business Intelligence Configuration of Descriptive Flexfields

Considerations for Managing Descriptive Flexfields

Configuring descriptive flexfields involves managing the available flexfields registered with your Oracle Fusion Cloud Applications database and configuring their flexfield-level properties, defining and managing descriptive flexfield contexts, and configuring global and context-sensitive segments.

Every descriptive flexfield is registered to include a context segment, which you may choose to use or not.

In general, configuring descriptive flexfields involves:

1. Creating segment labels for business intelligence enabled flexfields.
2. Configuring global segments by providing identity information, the initial default value, and the display properties.
3. Configuring the context segment by specifying the prompt, whether the context segment should be displayed, and whether a value is required.
4. Configuring contexts by specifying a context code, description, and name for each context value, and adding its context-sensitive segments, each of which is configured to include identifying information, the column assignment, the initial default value, and the display properties.

The following aspects are important in understanding descriptive flexfield management:

- Segments
- Adding segments to highlighted descriptive flexfields
- Usages
- Parameters
- Delimiters
- Initial Values
- Business Intelligence

Segments

You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order. You can't enter a number for a segment if that number is already in use for a different segment.

Value sets are optional for context segments and follow specific guidelines:

- The value set that you specify for a context segment consists of a set of context codes.
- Each context code corresponds to a context that's appropriate for the descriptive flexfield.
- The value set must be independent or table-validated.

- If table-validated, the WHERE clause must not use the VALUESET.value_set_code or SEGMENT.segment_code bind variables.
- The value set must be of data type Character with the maximum length of values being stored no larger than the context's column length.
- If you don't specify a value set for a context segment, the valid values for that context segment are derived from the context codes. The definition of each context segment specifies the set of context-sensitive segments that can be presented when that context code is selected by the end user.
- For reasons of data integrity, you can't delete an existing context. Instead, you can disable the associated context value in its own value set by setting its end date to a date in the past.
- You can configure the individual global segments and context-sensitive segments in a descriptive flexfield. These segment types are differentiated by their usage, but they're configured on application pages that use most of the same properties.

Adding Segments to Highlighted Descriptive Flexfields

When you highlight flexfields on a run time page and use an **Add Segment** icon button to create a segment, the segment code, name, description, table column, and sequence number are set automatically. If you use an **Add Segment** icon button to configure descriptive flexfield segments, you can't use an existing value set. Value sets are created automatically when you add the segments. You can enter the valid values, their descriptions, and the default value or specify the formatting constraints for the value set, such as minimum and maximum values.

Depending on display type, the value set you create using the **Add Segment** icon button is either an independent value set or a format-only value set. The following table shows which type of value set is created depending on the segment display component you select.

Display Component	Value Set Created Using Add Segment
Check Box	Independent
Drop-down List	Independent
List of Values	Independent
Radio Button Group	Independent
Text Field With Search	Independent
Text box	Format Only
Text area	Format Only
Date/Time	Format Only

Tip: After you add a context value, refresh the page to see the new value.

Usages

Descriptive flexfield usages allow for the same definition to be applied to multiple entities or application tables, such as a USER table and a USER_HISTORY table. Descriptive flexfield tables define the placeholder entity where the flexfield segment values are stored once you have configured the descriptive flexfield. When you configure a flexfield, the configuration applies to all its usages.

Parameters

Some descriptive flexfields provide parameters, which are attributes of the same or related entity objects. Parameters are public arguments to a descriptive flexfield. Parameters provide outside values in descriptive flexfield validation. You use parameters to set the initial value or derivation value of an attribute from external reference data, such as a column value or a session variable, rather than from user input. Parameters can be referenced by the logic that derives the default segment value, and by table-validated value set WHERE clauses.

Delimiters

A segment delimiter or separator visually separates segment values when the flexfield is displayed as a string of concatenated segments.

Initial Values

The SQL statement defining an initial value must be a valid statement that returns only one row and a value of the correct type.

You can use two types of SQL statements:

- SQL statement with no binding. For example, select MIN(SALARY) from EMPLOYEES.
- SQL statement with bind variables. You can use the **PARAMETER** bind variable in the WHERE clause of the SQL statement.
    - **:{PARAMETER.<parameter_code>}**: Identifies a parameter.

Business Intelligence

Selecting a global, context, or context-sensitive segment's BI Enabled check box specifies that the segment is available for use in Oracle Business Intelligence.

When the flexfield is imported into Oracle Business Intelligence, the label you selected from the BI Label drop-down list equalizes the segment with segments in other contexts, and maps the segment to the logical object represented by the label.

Related Topics

- Validation Type Options for Value Sets
- Default Segment Values
- Considerations for Enabling Descriptive Flexfield Segments for Business Intelligence
- Flexfield Segment Properties
- Why can't I edit my flexfield or value set configuration?

Configure Descriptive Flexfield Segments for a Lookup Type

Depending on the configuration level of a lookup type, you can configure the lookup codes or their meanings.

To capture more information for the lookup type, you can also configure the descriptive flexfield segments for the lookup type. For example, let's configure the descriptive flexfield segments for the US_STATE lookup type. Here are the tasks we need to do:

- Create the US_STATE context code
- Create the context-sensitive segments
- Deploy the changes
- Add a context segment value for the lookup type

Create the US_STATE Context Code

1. In the Setup and Maintenance work area, go to the **Manage Descriptive Flexfields** task in the Application Extensions functional area.
2. On the Manage Descriptive Flexfield page, use the Search text field to search for FND_LOOKUP_VALUES_B descriptive flexfield.
3. Select the descriptive flexfield and click the **Edit** icon.
4. On the Edit Descriptive Flexfield page, go to the Context Segment section and specify these values:

Field	Value
Default Type	Parameter
Default Value	LookupType
Derivation Value	LookupType
Display Type	List of Values

5. Click **Manage Contexts**.
6. On the Manage Contexts page, go to the Search Results section and click the **Create** icon.
7. On the Create Context page, enter the context code as **US_STATE**.
8. Click **Save and Close**.

Create the Context Sensitive Segments

1. On the Manage Contexts page, go to the Search Results section and select the **US_STATE** context code.
2. Click the **Edit** icon.
3. On the Edit Context page, go to the Context Sensitive Segments section and click the **Create** icon.
4. On the Create Segment page, specify these values:

Field	Value
Code	Capital
Data type	Character

Field	Value
Value Set	GL_100_CHARACTERS
Default Type	Parameter
Default Value	LookupType
Derivation Value	LookupType
Display Type	List of Values

5. Click **Save and Close**.
6. On the Manage Contexts page, click **Save and Close**.
7. On the Edit Descriptive Flexfield page, click **Save and Close**.

Deploy the Changes

1. On the Manage Descriptive Flexfield page, click **Deploy Flexfield** to deploy the changes made in the FND_LOOKUP_VALUES_B descriptive flexfield.
2. In the confirmation window, click **OK**.
3. Sign out and sign back in to see the changes.

Add a Context Segment Value for the Existing Lookup Type

After you add a new lookup code for the US_STATE lookup type, the context segment appears for the new lookup code. You can add value to the context segment.

1. In the Setup and Maintenance work area, go to the **Manage Common Lookups** task in the Application Extensions functional area.
2. On the Manage Common Lookups page, use the Search text field to search for the US_STATE lookup type.
3. Select the **US_STATE** lookup type.
4. Go to the Lookup Codes section and click the **New** icon.
5. In the **Lookup Code** field, enter **AZ**.
6. In the **Meaning** field, enter the meaning of the lookup code as **Arizona**.
7. Click **Save**.
8. Click the **Expand** icon to the left of the newly added lookup code.
9. In the **Capital** field, enter **Phoenix**.
10. Click **Save and Close**.

Considerations for Enabling Descriptive Flexfield Segments for Business Intelligence

A descriptive flexfield that's registered in the database as enabled for Oracle Transactional Business Intelligence (OTBI) includes a BI-enabled setting for each of its segments. When a global, context, or context-sensitive segment is BI-enabled, it's available for use in Oracle BI.

The following aspects are important in understanding BI-enabled flexfield segments:

- Flattening business components to use BI-enabled segments in Oracle BI

- Equalizing segments to prevent duplication and complexity in the flattened component
- Mapping attributes of flattened business components to logical objects in Oracle BI
- Managing the labels that map segments to logical objects in Oracle BI

After you deploy a business intelligence-enabled flexfield, use the Import Oracle Data Extensions for Oracle Transactional Business Intelligence process to import the flexfield changes into the Oracle Transactional Business Intelligence repository. Users can make use of the newly-generated attributes in business intelligence applications. For example, a user can generate a report that includes attributes added by the descriptive flexfield. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

Flattening

When you deploy a BI-enabled descriptive flexfield, the deployment process generates an additional set of flattened Application Development Framework (ADF) business components. The ADF business component is generated in addition to the usual ADF business components and the ADF faces artifacts. The flattened business components include attributes for BI-enabled segments only. Flattening means each user-defined column in each context shows up as an attribute in the Oracle Business Intelligence folder.

Flattened components include one attribute for the BI-enabled context-segment, and one attribute for each business intelligence-enabled global segment. For BI-enabled context-sensitive segments, what's included as part of the flattened components depend on whether you assign a label to the segment or not:

- If you assigned a label to the segment, the flattened components include an additional single attribute representing segments with that label.
- If you didn't assign a label, the flattened components include a discrete attribute for each BI-enabled context-sensitive segment in each context.

Mapping to Logical Objects in Business Intelligence

You can simplify reporting by representing similar segments as a single logical object in Business Intelligence.

If you assign a label to any set of context-sensitive segments that serve the same purpose in different contexts, you can consolidate or equalize the segments into a single attribute. This prevents duplication and the extra workload and complexity that result from the flattening process. For example, a United States context might have a Passport segment and a Canada context might have Visa segment. If you assign the NationalID segment label to both the Passport and Visa segments, they're equalized into the same NationalID attribute in the flattened business component.

Non-labeled context-sensitive segments aren't equalized across context values, so the flattened components include a separate attribute for each context-sensitive segment for each context value. It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

Assign a label to a global segment, context segment, or context-sensitive segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence.

> **Note:** Assigning a label to a context-sensitive segment serves to equalize the attribute across contexts, as well as map the equalized attribute to business intelligence.

Managing Labels

You may assign a predefined label (if available) to segments or create new labels for assignment, as needed. Specify a code, name, and description to identify each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object

minimizes the steps for importing the flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across contexts.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label doesn't exist in business intelligence, you must manually map the segment to the desired logical object when importing into Oracle Business Intelligence.

In addition, context-sensitive segments without labels can't be equalized across context values. The flattened components include a separate attribute for each non-labeled context-sensitive segment in each context.

Importing to Oracle Business Intelligence Repository

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly flattened business components in business intelligence and then propagate the flexfield object changes. When you import the metadata into the Oracle Business Intelligence repository, you must do so as the FUSION_APPS_BI_APPID user.

To import flexfield changes into the Oracle Transactional Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Data Extensions for Oracle Transactional Business Intelligence process. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

> **Note:** When you import a flexfield into the Oracle Transactional Business Intelligence repository, you see both `<name>_` and `<name>_c` attributes for each segment, along with some other optional attributes. The `<name>` attribute contains the value. The `<name>_c` attribute contains the code of the value set that the value comes from, and is used for linking to the value dimension. You must import both attributes.

Related Topics

- Considerations for Enabling Key Flexfield Segments for Business Intelligence
- Overview of Transactional Business Intelligence Configuration of Descriptive Flexfields
- Overview of Flexfield Change Import

Extensible Flexfields

Overview of Extensible Flexfields

Extensible flexfields are like descriptive flexfields, with some additional features.

- You can add as many context-sensitive segments to the flexfield as you need. You aren't restricted by the number of columns predefined and registered for the flexfield.
- You can configure a one-to-many relationship between the entity and its extended attribute rows.
  - A row of data can have multiple contexts associated with it.
  - A row of data can have multiple occurrences of the same context.
- You can configure attributes in groups to form a context so that the attributes in the context always appear together in the user interface.
- You can use existing hierarchical categories so that entities inherit the contexts that are configured for their parents. Contexts are reusable throughout categories.

- Application development has registered some extensible flexfields to support view and edit privileges. For such flexfields, you can specify view and edit privileges at the context level to control who sees the attributes and who can change the attributes' values.

When you configure a context for multiple rows per entity, the segments are displayed as a table.

Unlike descriptive flexfields, the extension columns corresponding to extensible flexfields segments are part of extension tables, separate from the base application table. Unlike descriptive flexfield contexts, the set of attributes in an extensible flexfield context remains constant and doesn't differ by context value. An extensible flexfield describes an application entity, with the run time ability to expand the database that implementation consultants can use to define the data structure that appears in the application. Extensible flexfields support one-to-many relationships between the entity and the extended attribute rows. To get a list of predefined extensible flexfields, use the Manage Extensible Flexfields task in the Setup and Maintenance work area.

The following aspects are important in understanding extensible flexfields:

- Usages
- Categories
- Pages
- Security
- Protected Extensible Flexfield Data

Usages

Similar to the descriptive flexfields, you can define multiple usages for an extensible flexfield, which enables several application tables to share the same flexfield.

For example, a flexfield for shipping options can be used by both a Supplier table and a Buyer table. In addition, you can associate a context with one, some, or all of the flexfield's usages. Thus, with the shipping information example, you can associate a warehouse context with the Supplier usage, a delivery location context with the Buyer usage, and a ship-via context with all usages.

Usages include security information for applying no security to user access or enforcing view and edit privileges. Some product-specific extensible flexfields have specialized usage fields beyond those for security.

Categories

You can configure multiple extensible flexfield contexts and group the contexts into categories. All extensible flexfields have at least one category. For some extensible flexfields, you can configure a hierarchy of categories. A child category in the hierarchy can inherit contexts from its parent category.

You can define categories for extensible flexfields, and you can associate any combination of contexts with a given category.

For example, the Electronics and Computers category hierarchy might include a Home Entertainment category, which in turn might include an Audio category and a TV category, and so on. The Home Entertainment product might have contexts that specify voltage, dimensions, inputs and outputs. Contexts are reusable within a given extensible flexfield. For example, the dimensions context could be assigned to any category that needs to include dimensional information.

Pages

Extensible flexfields let you combine contexts into groups known as pages, which serve to connect the contexts so they will always be presented together in the application user interface.

Each application page corresponds to one extensible flexfield category, with a separate region of the page for each associated context.

Security

When you configure a flexfield, you set the privileges for a context at the usage level by selecting actions for the view and edit privileges of a context usage.

When an end user performs a search, the user interface displays only the attribute values of the contexts for which the user has view privileges. The user can perform a search using all attributes for all contexts, regardless of view privileges.

If end users access a context through a web service, an exception is thrown if they perform an action for which they don't have privileges.

All extensible flexfields have a base data security resource. Some data security resources for extensible flexfields are preconfigured with actions that you can use to specify access privileges. If no action is preconfigured, a security administrator can create actions and policies to support access control on the extensible flexfield attributes.

Some extensible flexfields have a translatable option; these flexfields also have a translation data security resource.

Protected Extensible Flexfield Data

Application developers may mark some data configurations in an extensible flexfield as protected, indicating that you can't edit them.

If an extensible flexfield is partially protected, then you can't edit the protected portions of the flexfield's configuration. For example:

- If an extensible flexfield context is protected, you can't edit its:
    - Context details
    - Context segments
    - Context usages
- If an extensible flexfield page is protected, you can't:
    - Edit the page details or delete the page
    - Edit the contexts associated with the page

Note:

- There's no restriction on page references to protected contexts. The pages you create may contain any context, whether protected or not.
- There's a restriction on category references to protected contexts. If a context is protected, you can't add it to or delete it from any category.

Related Topics

- Overview of Flexfield Deployment
- Considerations for Managing Flexfields
- Considerations for Managing Extensible Flexfields
- How can I access predefined flexfields?
- How do I update existing setup data?

Considerations for Planning Extensible Flexfields

Once you have identified a flexfield, plan the configuration. Make a list of the UI pages and other artifacts that are affected by the configuration. Verify that you have the appropriate roles to view and configure the flexfields.

You can locate flexfields on a page using the **Settings and Actions** menu. Click your user image or name in the global header to open this menu, and select **Highlight Flexfields** to locate flexfields on a page. After you configure the flexfields, plan to deploy them for test and production users. Review the tools and tasks available for managing flexfields to add and edit flexfield segments.

Planning an extensible flexfield involves:

1. Identifying the following:
    - A hierarchical structure of categories
    - Existing context values
    - User-defined attributes, the relevant extensible flexfield segments, segment properties, and the structure
2. Planning the following:
    - Validation rules
    - Initial values
    - Security
    - Attribute mapping to Oracle Business Intelligence objects.

Category Hierarchy Structure

Existing category hierarchy structures provide the framework for planning what segments to add to an extensible flexfield as user-defined attributes of an entity. Some applications provide user interfaces to create and manage an extensible flexfield's category hierarchy.

Contexts and Existing Context Values

If related attributes can be grouped together, plan adding the attributes as a context of segments, and plan the order in which the attributes should appear. Some extensible flexfields have preconfigured context values. Region headers displayed in the user interface page or pages that contain the flexfield segments identify existing contexts. Using the Manage Extensible Flexfields task, find and open the flexfield for editing to view the list of configured context values.

See product-specific information for guidance in using preconfigured context values.

Plan the Segments and Segment Properties

List all the user-defined attributes that you want to add as extensible flexfield segments. For each segment, define properties, including the indexed property.

Plan Validation Rules

Define each segment's validation rules and check if value sets exist for those rules or you must create. If you must create a value set, you can create it either before you configure the flexfield or at the same time that you create or edit a segment.

When determining a segment's validation rules, consider the following questions:

- What is the data type: character, date, date and time, or number?
- Does the segment require any validation beyond data type and maximum length?
- Should a character type value be restricted to digits, or are alphabetic characters permitted?
- Should alphabetic characters automatically be changed to uppercase?
- Should numeric values be zero-filled?
- How many digits can follow the radix separator of a numeric value? In base ten numeric systems, the radix separator is a decimal point.
- Should the value be within a range?
- Should the value be selected from a list of valid values? If yes, consider the following questions:
    - Can you use an existing application table from which to obtain the list of valid values, or do you have to create a list?
    - If you're using an existing table, do you have to limit the list of values using a WHERE clause?
    - Does the list of valid values depend on the value in another flexfield segment?
    - Is the list of valid values a subset of another flexfield segment's list of values?

Plan Initial Values

For every segment, list the constant value or SQL statement, if any, to use for the initial value of the user-defined attribute.

Plan Security

Determine what privileges to set for view and edit access to context attributes, such as providing all users with view access but only managers with edit access.

If your security restrictions apply to several contexts, you can create generic actions. At a minimum, create the generic actions for the base data security resource. If the flexfield has a translatable option and you plan to use translatable contexts, then also create the generic actions for the translation data security resource. For example, the Item flexfield supports the translatable option and has a data security resource ITEM_EFF_VL in addition to the base data security resource ITEM_EFF_B. Then, create actions for both data security resources, such as EDIT_NONTRANS_ATTRS for ITEM_EFF_B and EDIT_TRANS_ATTRS for ITEM_EFF_VL.

If your security restrictions are more fine-grained, such as having to secure each context with a different privilege, then you can create more fine-grained actions.

Plan Which Segments Map to Oracle Business Intelligence Objects

If an extensible flexfield has been enabled for Oracle Business Intelligence, you can make the attributes available for use in Oracle Business Intelligence Applications.

Related Topics

- Considerations for Managing Extensible Flexfields
- Flexfield Segment Properties

Considerations for Managing Extensible Flexfields

Configuring extensible flexfields involves managing the available flexfields registered with your application database.

The following sequence describes how to configure extensible flexfields:

1. Configuring contexts by creating each context segment and the context-sensitive segments for each context segment, and providing the following for each segments:
    a. Identifying information
    b. Column assignment
    c. Initial default value
    d. Display properties
2. Configuring context usages and usage security by selecting actions to which users should have access:
    - View
    - Edit
    - None, if no special privileges should be enforced.
3. Configuring categories and category details.
4. Associating contexts with a category.
5. Creating logical pages for a category.

The following aspects are important in understanding extensible flexfield management:

- Contexts and pages
- Categories
- Initial values
- Adding segments to highlighted extensible flexfields
- Indexed segments
- Security
- Deployment

Contexts and Pages

Each context is displayed to end users as a region containing its context-sensitive segments. You can specify instruction help text to display instructions that explain how to use the region and its attributes to end users. Instruction help text is displayed at the beginning of the context region. A context can be defined as single row or multi-row. Single row contexts are the same as descriptive flexfields contexts. A single row context has only one set of context-sensitive segments. A multi-row context enables you to associate multiple sets of values with the same object instance.

For example, for a BOOK table, you could create a multi-row context named chapters that contains a segment for chapter and a segment for number of pages. Multiple chapters can then be associated with each book in the BOOK table.

For contexts that store multiple rows, you can uniquely identify each row by having the values in each row form a unique key.

If flexfield has a category hierarchy, then you can leverage the hierarchy to reuse contexts for similar entities, such as similar items in a product catalog.

Set the context to translatable so that free-form text entered by end users is stored in the language of the user's locale, and different translations of that text can be stored in other languages. Segments in the translated contexts should use format-only value sets for storing free-form, user-entered text.

Set the context security to give an end user view or edit access to a context. The context's task flow and region appear in the user interface only for users with view access. With edit access, an end user can edit the context's attribute values. With no action specified for a usage, no special privileges are enforced through the context's configuration.

Define logical pages to group contexts together in the user interface. For a given category, you may create one or more logical pages. You may add one or more of the category's associated contexts to each of the category's logical pages.

You can specify:

- The sequence of the contexts within each page.
- The sequence in which the logical pages appear.
- Instruction help text to display instructions that explain how to use the page to end users. Instruction help text is displayed at the beginning of the logical page, preceding all of its context regions.

Categories

A category is a grouping of related data items that can be considered to belong together. You can associate any combination of contexts with a given category. Extensible flexfields with more than 30 categories must be deployed as a background process.

A category hierarchy logically organizes a set of categories. For example, the Electronics and Computers category hierarchy might include a Computer category and a Home Entertainment category, which in turn might include an Audio category and a TV category, and so on.

A category can be a child or sibling of an existing category. The hierarchy can be as simple or as complex as desired, with any combination of zero or more sibling categories and zero or more child categories. If no category is defined, the data items are grouped in a single predefined default category.

Each category has associated contexts that store relevant information about a data item in that category. For example, a Home Entertainment product has contexts that specify Voltage, Dimensions, Inputs and Outputs. Contexts are reusable within a given extensible flexfield. Then, the Dimensions context could be assigned to any category that needs to include dimensional information.

If a hierarchy includes child categories, each child category inherits the contexts from its parent category; for example, the Home Entertainment category inherits Voltage and Dimensions from the Electronics and Computers category.

Each extensible flexfield is associated with a particular category hierarchy. Consider category hierarchies to be defining framework for extensible flexfields and their contexts. A category hierarchy specifies which contexts are valid for each category.

An extensible flexfield can include multiple contexts which you define to support a given category. These contexts can be suitable for various purposes, but within a particular category, some contexts might be considered to be related to, or dependent on, each other. You can combine these contexts into groups known as logical pages, and determine the sequence in which the pages appear. This serves to connect the contexts so they will always be presented together and in a particular order in the application user interface.

For example, the Home Entertainment category might have an Electrical Specifications page that contains the Voltage, Inputs and Outputs contexts, and a Physical Specifications page that contains the Dimensions and Form Factor contexts.

Initial Values

The SQL statement defining an initial value must be a valid statement that returns only one row and a value of the correct type.

You can use two types of SQL statements:

- SQL statement with no binding. For example, select MIN(SALARY) from EMPLOYEES.
- SQL statement with bind variables. You can use these bind variables in the WHERE clause of the SQL statement.
    - `:{SEGMENT.<segment_code>}`: Identifies a segment in the same context.
    - `:{PARAMETER.<parameter_code>}`: Identifies a parameter.
    - `:{CONTEXT.<context_code>;SEGMENT.<segment_code>}`: Identifies a segment in a different context. The context must be in the same category or in an ancestor category, and it can't be a multiple-row context.
    - `:{VALUESET.<value_set_code>}`: Identifies the closest prior segment in the same context that's assigned to the specified value set.
    - `:{FLEXFIELD.<internal_code>}`: Identifies a flexfield.

Adding Segments to Highlighted Extensible Flexfields

When you highlight flexfields on a run time page and use an **Add Segment** icon button to create a segment, the segment code, name, description, table column, and sequence number are set automatically. If you use an **Add Segment** icon button to configure extensible flexfield segments, you can't use an existing value set. Value sets are created automatically when you add segments. You can enter the valid values, their descriptions, and the default value or specify the formatting constraints for the value set, such as minimum and maximum values.

Depending on display type, the value set you create with the **Add Segment** icon button is either an independent value set or a format-only value set. The following table shows which type of value set is created depending on the segment display component you select.

Display Component	Value Set Created Using Add Segment
Check Box	Independent
Drop-down List	Independent
List of Values	Independent
Radio Button Group	Independent
Text Field With Search	Independent
Text box	Format Only

Display Component	Value Set Created Using Add Segment
Text area	Format Only
Rich Text Editor	Format Only
Date/Time	Format Only

Tip: After you add a context value, refresh the page to see the new value.

Indexed Segments

You can designate an extensible flexfield segment as indexed so that it's one of the selectively required attributes a user can use in an attribute search. If you indicate in the Manage Extensible Flexfield UI page that a segment should be indexed, the column representing the segment must be added to the database index. Commonly, a database administrator (DBA) adds columns to the database index.

When an extensible flexfield with indexed segments is deployed, search task flows are generated along with the other flexfield artifacts and specify the indexed attributes as selectively required. In the deployed extensible flexfield's search task flow, an end user must specify at least one of the indexed attributes in the search criteria. This prevents non-selective searches, which could cause performance issues.

For example, if you index the memory and processor attributes and ensure that the corresponding columns in the database are indexed, a user can search an item catalog for computers by entering processor or memory or both as a search criteria. No search is performed if an end user enters an attribute that isn't indexed as a search criterion.

Security

An extensible flexfield's base data security resource typically has a name with an _B suffix. The translation data security resource is a view of a translation table that typically has a name with an _VL suffix.

If a flexfield supports the translatable option and has a translation data security resource, make sure that you create the action for the appropriate data security resource.

- If you create a context-specific action for a nontranslatable context, add it to the base data security resource.
- If you create a context-specific action for a translatable context, add it to the translation data security resource.

Deployment

You can only deploy extensible flexfields using the Manage Extensible Flexfields task. You can deploy extensible flexfields offline as a background process and continue working in the session without having to wait for the deployment to complete. You can queue up several extensible flexfields and deploy as a background process. The flexfields are deployed, one at a time, in the order that you deploy them to the queue. You must deploy extensible flexfields with more than 30 categories as a background process.

You can remove an extensible flexfield from the deployment queue with the Cancel Background Deployment command. When an extensible flexfield is deployed in a background process, its offline status indicates that the flexfield is in a background deployment process. A flexfield's offline status is cleared and it's deployment status updated when the background deployment process has completed.

Note: The **Offline Status** column refreshes when you perform a new search in the Manage Extensible Flexfields task.

Related Topics

- Why did my flexfield changes not appear in the UI?
- Flexfield Usages
- Why can't I edit my flexfield or value set configuration?

Considerations for Enabling Extensible Flexfield Segments for Business Intelligence

An extensible flexfield that's registered in the database as enabled for Oracle Transactional Business Intelligence (OTBI) includes a BI Enabled setting for each of its segment instances. When a segment instance is BI-enabled, it's available for use in OTBI.

The following aspects are important in understanding BI-enabled extensible flexfield segments.

- Flattening business components to use BI-enabled segments in Oracle BI
- Mapping attributes of flattened business components to logical objects in OTBI

After you deploy a business intelligence-enabled flexfield, use the Import Oracle Data Extensions for OTBI process to import the flexfield changes into the Oracle Transactional Business Intelligence repository. Users can make use of the newly-generated attributes in business intelligence applications. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

Flattening

When you deploy a business intelligence-enabled extensible flexfield, the deployment process generates an additional set of flattened business components for use in business intelligence. The flattened business components include attributes for business intelligence-enabled segment instances only.

If you assigned a label to a segment, the flattened components include a single attribute representing all segment instances with that label. If you didn't assign a label, the flattened components include a discrete attribute for each BI-enabled segment instance in each structure.

Importing to Oracle Transactional Business Intelligence Repository

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Transactional Business Intelligence repository to make use of the newly flattened business components in business intelligence and then propagate the flexfield object changes. When you import the metadata into the Oracle Transactional Business Intelligence repository, you must do so as the FUSION_APPS_BI_APPID user. To import flexfield changes into the Oracle Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Data Extensions for Transactional Business Intelligence process. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

> **Tip:** When you import a flexfield into the Oracle Transactional Business Intelligence repository, you see both `<name>_` and `<name>_c` attributes for each segment, along with some other optional attributes. The `<name>_` attribute contains the value. The `<name>_c` attribute contains the code of the value set that the value comes from, and is used for linking to the value dimension. You must import both attributes.

Related Topics

- Considerations for Enabling Descriptive Flexfield Segments for Business Intelligence
- Overview of Extensible Flexfields
- Set Extensible Flexfields as BI-Enabled
- Overview of Flexfield Change Import

Considerations for Managing Extensible Flexfield Categories

Categories are a way of extending the number of context-sensitive segments for a flexfield beyond the columns reserved for flexfield segments.

For example, an Items extensible flexfield has a category for each item and each category can have one or more contexts. The laptop item belongs to the Computers category. Since extensible flexfields are mapped to separate extension tables, not just to columns as with descriptive flexfields, the thirty reserved columns on the extensible flexfield table let you define up to thirty context-sensitive segments for each context.

If you add a Dimensions context to the Computers category, thirty segments are available. But if you need to add more than thirty attributes, create another context and associate it to the same category. You could now add an Electronics Attributes context to the same Computers category in which you create another thirty segments. You can continue creating more contexts and adding them to the Computers category. In this way your laptop computer item can be extended with as many attributes as you need, because it's mapped to a category and you can keep adding contexts to that category.

A descriptive flexfield on an items table with thirty columns reserved for segments can only have a single context. Once you configure the columns for that one context, you can't create any more segments.

Predefined and Preconfigured Categories

How you structure the flexfield configuration depends on how categories are defined for the flexfield. If the extensible flexfield is preconfigured with one category, associate all your contexts and pages with that category. If a product-specific extensible flexfield is preconfigured with several categories, associate your contexts and pages with those categories. If the extensible flexfields provide user interfaces for configuring multiple categories, associate a context with more than one category using inheritance.

Some products provide an activity or task for creating and maintaining categories for an extensible flexfield. See product-specific information to determine if you can create categories for the flexfield.

You can view a flexfield's category hierarchies by using either the Highlight Flexfields feature or the Manage Extensible Flexfields task to find and open the flexfield for editing.

Disabling Categories

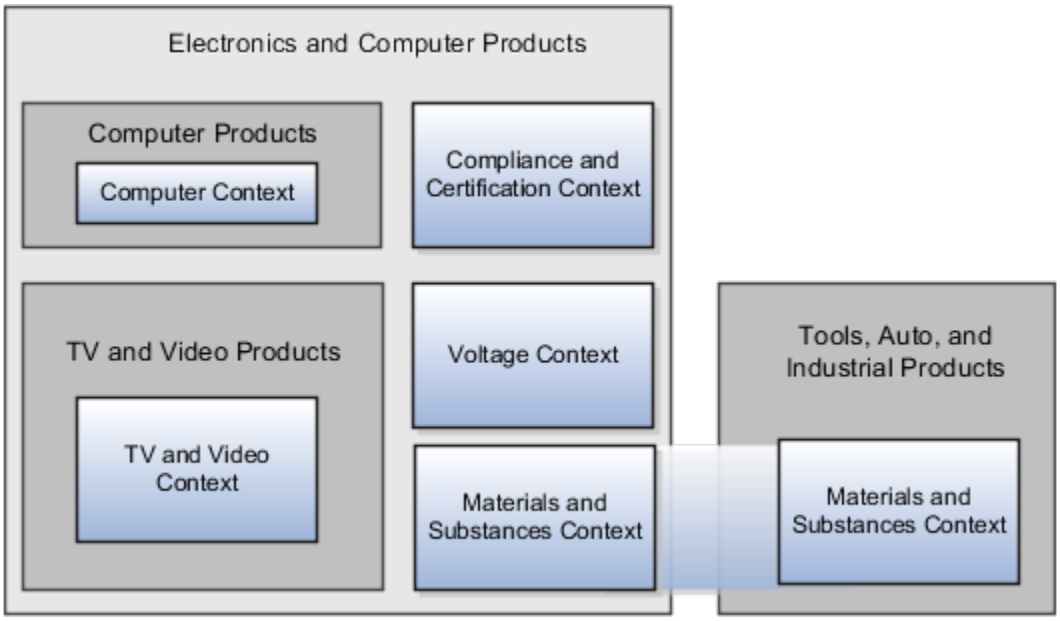
While configuring an extensible flexfield, you can disable a category. The Enabled column in the Category table of the Edit Extensible Flexfield page, indicates which categories are enabled.

> **Note:** When you deploy an extensible flexfield that has a disabled category, that category and its descendant categories aren't deployed. Contexts and their segments are deployed only if they belong to at least one enabled category.

Contexts

Group similar attributes into contexts. The group is displayed together in a region. The region's header is the context value.

If a category hierarchy exists for the flexfield, then you can leverage the hierarchy to reuse contexts for similar entities, such as similar items in a product catalog.



The following table shows an example of category hierarchy for an extensible flexfield. To store voltage information for all electronic and computer items, associate a Voltage context with the Electronics and Computers category. Both the TV and Video subcategory and the Computers subcategory then inherit the Voltage context from the parent Electronics and Computers category.

Display Name	Code	Description
Electronics and Computers	PROD_ELECTRONICS	Electronics and Computers
TV and Video	PROD_TV_VIDEO	Television and Video
Computers	PROD_COMPUTERS	Computers
Office Products and Supplies	PROD_OFFICE_PRODUCTS_SUPPLIES	Office Products and Supplies
Tools, Auto, and Industrial	PROD_TOOLS_AUTO_INDUSTRIAL	Tools, Automotive, and Industrial
Sports and Outdoors	PROD_SPORTS_OUTDOORS	Sports and Outdoors

Example of Configuring an Item Extended Attributes Flexfield

The Item Extended Attributes flexfield provides segments for extending the Item business object. In the Manage Extensible Flexfields task, configure your product business object to include a technical specifications logical page on the UI for the Electronics and Computers category.

In this example, your configuration of this flexfield groups attributes into the following contexts:

- Materials and Substances
- Compliance and Certification
- Voltage

Scenario

The following list shows an example plan for computer attributes for the Item Extended Attributes flexfield. In this example, the Electronics Information page is inherited from the parent Electronics and Computers category.

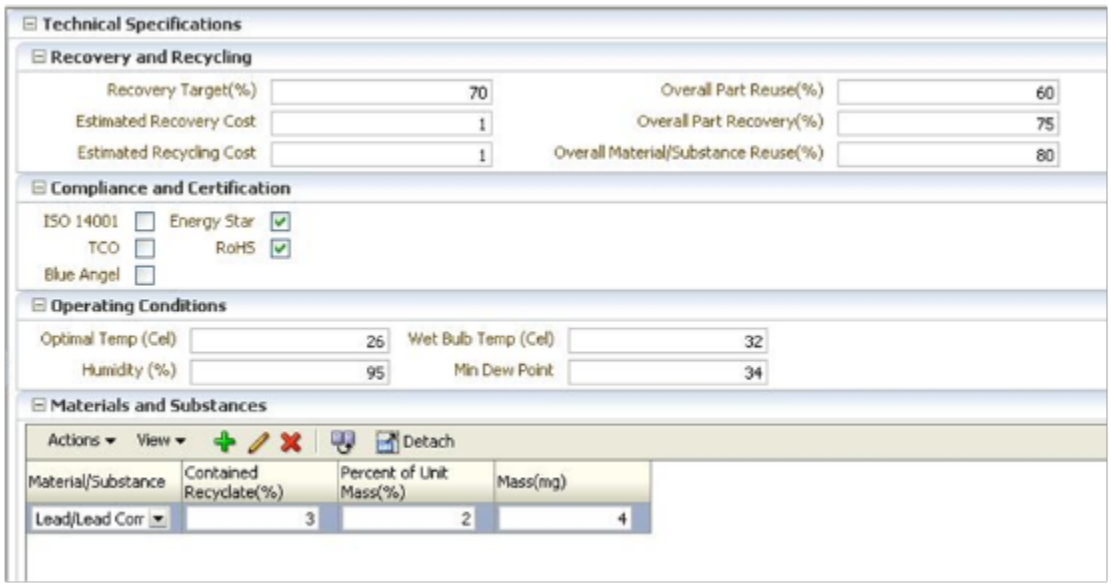
- Page: Electronics Information
    - Context: Compliance and Certification, single row
        - ISO 14001 (International Organization for Standardization for an Environmental Management System)
        - ENERGY STAR (energy efficiency guidelines)
        - ROHS (Restriction of the use of certain hazardous substances in electrical and electronic equipment)
    - Context: Voltage, single row
        - Minimum voltage
        - Maximum voltage
        - Current type
    - Context: Materials and Substances, multiple rows
        - Material
        - Contain recyclate
        - Percent unit mass
- Page: Computer Information
    - Context: Processor Specifications, single row
        - Manufacturer
        - CPU type
        - Processor interface
        - Processor class
        - Processor speed
        - Cores

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which extensible flexfield is available for configuring a hierarchy of categories?	Item Extended Attributes flexfield

Collecting Technical Specifications

Your product inventory pages for electronics and computers require a technical specifications page. Your product inventory pages for furniture require a furniture specifications page and an assembly instructions page. Items in both the electronics and computer category, and in the furniture category, share attributes for specifying materials and substances.



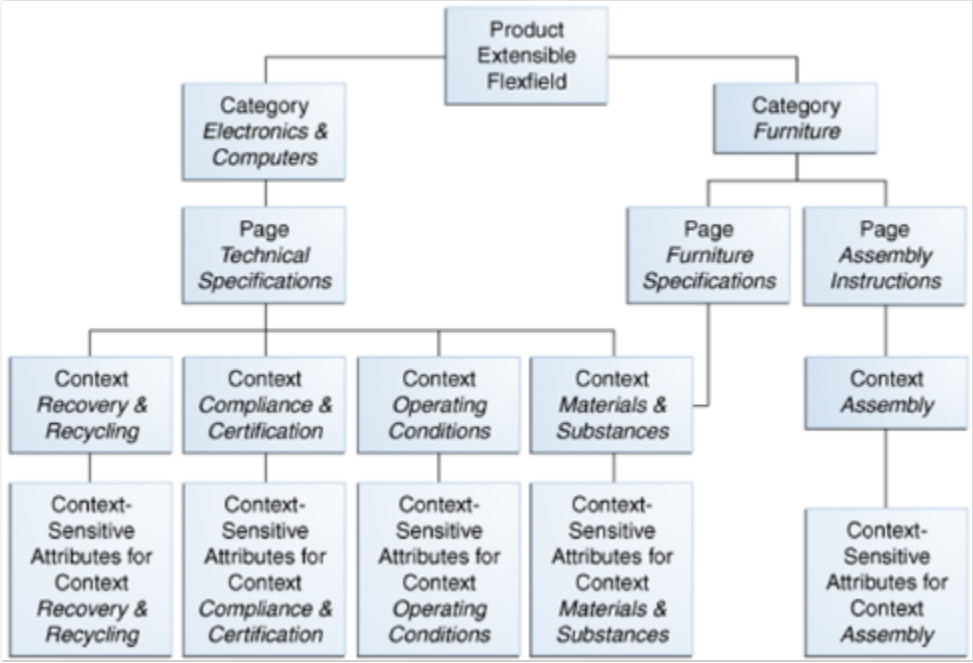
Use logical pages to determine how the contexts appear on the user interface. Use a context to store all the materials and substances required to make a single product. You can configure a context to store multiple rows per entity. The multiple rows are displayed in a table, like the Materials and Substances context.

The Technical Specifications logical page contains the attributes for the four contexts.

- Recovery and Recycling
- Compliance and Certification
- Operating Conditions
- Materials and Substances

The following figure is an example, where the Furniture category is configured to include a Furniture Specifications logical page and an Assembly Instructions logical page. The two

categories (Electronics and Computers and Furniture) share the Materials and Substances context.



Configure Security for the Item Flexfield Configuration

The following table shows an example of data security policies for the Item flexfield.

Data Security Resource	Policy	Role	Action	Condition
ITEM_EFF_B	A	VOLTAGE_SPEC	edit_nontrans_voltage_ctx	All values
ITEM_EFF_VL	B	COMPLIANCE_SPEC	edit_trans_compliance_ctx	All values
ITEM_EFF_VL	C	COMPUTER_SPEC	edit_trans_attrs	ComputerCategoryFilter
ITEM_EFF_VL	D	TELEVISION_SPEC	edit_trans_attrs	TVCategoryFilter

The following table shows the privileges for the three flexfield contexts.

Context	Edit Privilege	View Privilege
Voltage	edit_nontrans_voltage_ctx	NONE
Compliance and Certification	edit_trans_compliance_ctx	NONE
Materials and Substances	edit_trans_attrs	NONE

In this example, anyone can view the contexts' attributes, but the edit privileges are restricted as follows:

- Voltage: Only voltage specialists can edit this value.
- Compliance and Certification: Only compliance specialists can edit this value.
- Materials and Substances: Only computer specialists can edit these attributes for items in the computer category. Only television specialists can edit these attributes for items in the TV category.

To sum up, in this entire example, the Materials and Substances context is secured by a generic action with a condition applied to restrict access by category. Voltage and Compliance and Certification are secured by actions specific to each context.

File Format for Importing Extensible Flexfields

You can import extensible flexfields to your application by creating separate text files containing value sets, contexts, and context segments. You can then upload these files to the Oracle WebCenter Content document repository.

Here are a few things that you need to keep in mind while creating these files:

- Use a vertical bar or pipe (|) as a delimiter between fields for both the header and the value rows.
- According to the Oracle WebCenter Content specification, set the file encoding to UTF-8 without the Byte Order Mark (BOM).
- Make sure the first line in the file is a header line, and the files look exactly the same as shown in the sample file.

The following sections contain specific details about each file format.

Value Sets

To create a file containing value sets, include the headers specified in this table:

Header	Data Type	Data Size	Description	Required or Optional
`ValueSetCode`	String	60	This value identifies your value set across components.	Required
`ModuleType`	String	60	This value determines the module type of your value set.	Required
`ModuleKey`	String	60	This value determines the specific module of your value set.	Required
`ValidationType`	String	30	This value determines your value set type. Here are the types of value set: • `DEP` • `INDEP` • `FORMAT` • `SUBSET`	Required

Header	Data Type	Data Size	Description	Required or Optional
			• **RELATED**	
ValueDataType	String	30	This value determines the data type that your value set uses. Here are the supported data types: • **VARCHAR2** • **NUMBER** • **DATE** • **TIMESTAMP**	Required
ValueSubType	String	30	This value determines the data subtype that your value set uses. Here are the supported data subtypes: • **TEXT** • **TIME_HM** • **NUMERIC** • **TIME_HMS** • **TRANSLATED**	Required for **ValueDataType VARCHAR2**
MaximumLength	Integer	-	This value determines the maximum length of values in your value set.	Required for **ValueDataType VARCHAR2**
Description	String	240	This value describes your value set.	Optional
Precision	Integer	-	This value determines the number of digits in the number data that you add to your value set.	Optional Use this header only for **ValueDataType NUMBER**
Scale	Integer	-	This value determines the number of digits after the decimal point in the number data that you add to your value set.	Optional Use this header only for **ValueDataType NUMBER**
UppercaseOnlyFlag	String	1	This value indicates whether only uppercase characters are supported for your value sets: • Y: Supports only uppercase characters. • N: Supports both uppercase and lowercase characters.	Optional Use this header only for **ValueDataType VARCHAR2**

Header	Data Type	Data Size	Description	Required or Optional
`ZeroFillFlag`	String	1	This value lets you add zeroes to the left of the text you add in your value set till the text length matches the value in the `MaximumLength` header: • Y: Zeroes are added. • N: Zeroes aren't added.	Optional Use this header only for `ValueDataType` `VARCHAR2`.
`SecurityEnabledFlag`	String	1	This value indicates whether data security resource is added to your value set: • Y: Data security resource is added to your value set. • N: Data security resource isn't added to your value set.	Optional
`DataSecurityObjectNam`	String	60	This value selects the data security resource that you want to add to your value set. The value must match a data security resource in the application.	Required if `SecurityEnabledFlag` is set to Y.
`MinimumValue`	String	150	This value specifies the minimum value for the values in your value set.	Optional
`MaximumValue`	String	150	This value specifies the maximum value for the values in your value set.	Optional
`IndependentValueSetCo`	String	60	This value determines the independent value set your dependent or subset value set is linked to.	Required for only `ValidationType`, `DEP`, and `SUBSET` validation types. Don't use this header for any other validation types.

Here's a sample file for value sets. You can see the header values at the beginning of the file, followed by the line entries of the three value sets that are to be imported. For importing several value sets, add more entries in the same format.

```
ValueSetCode|ModuleType|ModuleKey|ValidationType|ValueDataType|ValueSubtype|MaximumLength|Description
VS_TEST_91|APPLICATION|FND|INDEP|VARCHAR2|TEXT|2|desc1
VS_TEST_92|APPLICATION|FND|INDEP|VARCHAR2|TEXT|3|
VS_TEST_93|APPLICATION|FND|INDEP|VARCHAR2|TEXT|3|desc3
```

Context

To create a file containing the contexts, include the headers specified in this table:

Header	Data Type	Data Size	Description	Required or Optional
`ApplicationId`	Long	-	This value determines the application your flexfield and context belong to.	Required
`EFFCode`	String	40	This value is the code of the extensible flexfield where you're adding your context. The value should match the code of an extensible flexfield that's already in the application.	Required
`ContextCode`	String	80	This value is the code for your context.	Required
`Name`	String	80	This value determines the display name of your context.	Required
`MultirowFlag`	String	1	This value indicates whether multiple rows are supported for your context: • Y: Your context supports multiple rows. • N: Your context supports only single row.	Required
`EnabledFlag`	String	1	This value lets you enable or disable your context: • Y - Enable context • N - Disable context	Required
`Description`	String	240	This value describes your context.	Optional
`TranslatableFlag`	String	1	This value indicates whether the segments in your context are translatable: • Y: Segments in your context are translatable.	Optional

Header	Data Type	Data Size	Description	Required or Optional
			• N: Segments in your context aren't translatable.	
`ContextIdentifier`	String	30	This value determines the API name for your context. While naming APIs, follow the naming conventions.	Optional
`InstructionHelpText`	String	400	This value provides user instructions on how to use the context region.	Optional
`FlexfieldUsageCode`	String	30	This value determines the usage code for your context. The value should match a usage code in the application.	Required
`ViewPrivilegeName`	String	400	This value determines the privileges that can view this context usage. The value should match a privilege in the application.	Optional
`EditPrivilegeName`	String	400	This value determines the privileges that can edit this context usage. The value should match a privilege in the application.	Optional
`CExtAttribute1`	String	150	This value adds a user-defined attribute to a context usage. To add your user-defined attributes, you can use up to 5 headers of this type, `CExtAttribute1` to `CExtAttribute5`.	Optional
`CONTEXT_ CExtAttribute1`	String	150	This value adds a user-defined attribute to a context. You can use up to 5 headers of this type, `CONTEXT_ CExtAttribute1` to `CONTEXT_ CExtAttribute5` to add your user-defined attributes.	Optional
`DatabaseViewNamePrefi`	String	15	This value is used as a prefix for the database	Optional

Header	Data Type	Data Size	Description	Required or Optional
			view name for a given context. While entering this value, follow the naming conventions similar to that of flexfield API names.	

Here's a sample file that contains the header values at the beginning and lists three contexts to be imported. For importing several contexts, add more entries in the same format.

```
ApplicationId|EFFCode|ContextCode|Name|EnabledFlag|MultirowFlag|Description|FlexfieldUsageCode|
ViewPrivilegeName|CExtAttribute1|CExtAttribute2|CExtAttribute3|CExtAttribute4|CExtAttribute5
0|FLEX_SN_EFF1|OBJ_TEST_4|Object test 44|Y|N|desc 44 3363|FLEX_SN_EFF1_USAGE2|flex_sn_sitems_view|||||
0|FLEX_SN_EFF1|OBJ_TEST_3|Object test 33|Y|N||FLEX_SN_EFF1_USAGE1|flex_sn_view|||||NEW_TEST11
0|FLEX_SN_EFF1|OBJ_TEST_3|Object test 33|Y|N|new desc aug 14|FLEX_SN_EFF1_USAGE2|flex_sn_sitems_edit|
CE1_TESTupd_aug15||||
```

Context Segment

To create a file containing context segments, include the headers specified in this table:

Header	Data Type	Data Size	Description	Required or Optional
`ApplicationId`	Long	-	This value determines the application your flexfield, context, and segment belong to.	Required
`EFFCode`	String	40	This value is the code of the extensible flexfield where you're adding your context segment. The value should match the code of an extensible flexfield that's already in the application.	Required
`ContextCode`	String	80	This value is the code of the context where you're adding your segment. The value should match a context code that's in the application.	Required
`SegmentCode`	String	30	This value is the code for your segment.	Required
`Name`	String	60	This value is the name for your segment.	Required
`ColumnName`	String	30	This value determines the table column that your segment uses to save data. The value must match a column that's in the application.	Required

Header	Data Type	Data Size	Description	Required or Optional
`ValueSetCode`	String	60	This value is the code for the value set you want to use in your segment. The value must match a value set code in the application.	Required
`DisplayType`	String	30	This value determines the display type of the segment. Here are the valid values for this attribute: • `TEXT_BOX` • `TEXT_AREA` • `RICH_TEXT_EDITOR` • `HIDDEN,LOV` • `POP_UP_LIST` • `DROP_DOWN_LIST` • `RADIO_BUTTON_GROUP` • `STATIC_URL` • `CHECKBOX` • `COLOR` • `DATE_TIME`	Required
`Prompt`	String	80	This value determines the display name of the segment.	Required
`ShortPrompt`	String	80	This value determines the shortened display name of the segment.	Required
`EnabledFlag`	String	1	This value lets you enable or disable your segment: • Y - Segment is enabled • N - Segment is disabled	Required
`RequiredFlag`	String	1	This value indicates whether you must specify the segment. • Y: You must specify the segment. • N: You may not specify the segment.	Required

Header	Data Type	Data Size	Description	Required or Optional
`ReadOnlyFlag`	String	1	This value lets you set your segment to be read-only. • Y: The segment is set to read-only. • N: The segment isn't set to read-only.	Required
`Description`	String	240	This value describes your segment.	Optional
`UOMclass`	String	20	This value determines the unit for the data you add to your segment.	Optional
`TerminologyHelpText`	String	80	This value provides a description for the segment.	Optional
`InFieldHelpText`	String	160	This value provides instructions on how to use the segment.	Optional
`SequenceNumber`	Integer	-	This value determines the order in which your segments are displayed in your context.	Optional
`DefaultType`	String	30	This value specifies the type of default value for your segment. Here are the types of default values: • `CONSTANT` • `SQL` • `GROOVY_EXPRESSION`	Optional
`DefaultValue`	String	4000	This value provides the default values for your segment.	Optional
`DisplayWidth`	Integer	-	This value specifies the maximum number of characters that display in a line.	Optional
`DisplayHeight`	Integer	-	This value specifies the maximum number of lines that display in the segment.	Optional

Header	Data Type	Data Size	Description	Required or Optional
`CheckboxCheckedValue`	String	30	This value determines the value of a selected check box in your segment.	Required for display type `CHECKBOX`.
`CheckboxUncheckedValu`	String	30	This value determines the value of a check box that's not selected in your segment.	Required for display type `CHECKBOX`.
`RangeType`	String	30	This value specifies the range of values for the low-end and high-end fields. You can set the value as `LOW` or `HIGH` for your low-end and high-end fields respectively.	Optional
`BIEnabledFlag`	String	1	This value indicates whether your segment is BI enabled. • Y: Your segment is BI enabled. • N: Your segment isn't BI enabled.	Optional
`MultirowUniqueKeyFlag`	String	1	This value indicates whether the segment is marked as a unique key for context with multiple rows. • Y: Segment is marked as a unique key. • N: Segment isn't marked as a unique key. This is the default value. At least one segment in a context with multiple rows must be marked as the unique key.	Required for contexts with multiple rows
`ShowValueDescription`	String	1	This value lets you display the value set description for the value set associated with the segment: • Y: The value set description is displayed for the value set associated with the segment. • N: The value set description isn't displayed for the value	Optional

Header	Data Type	Data Size	Description	Required or Optional
			set associated with the segment.	
SegmentIdentifier	String	30	This value determines the API name for your segment. While naming APIs, follow the naming conventions.	Optional

Here's a sample file for the context segment. You can see the header values at the beginning of the file, followed by the line entry of a context segment that's to be imported. For importing several context segments, add more entries in the same format.

```
ApplicationId|EFFCode|ContextCode|SegmentCode|Name|ColumnName|ValueSetCode|DisplayType|Prompt|ShortPrompt|
EnabledFlag|RequiredFlag|ReadOnlyFlag|Description|UomClass
0|FLEX_SN_EFF1|ColdSourceTargetContext|Cold_TEST_SEG1|cold seg 1|ATTRIBUTE_CHAR3|EFF_BASIC_FMT_CHR|TEXT_BOX|
Prompt|Short Prompt|Y|Y|N|TEST desc aug 14_3PM|
```

Related Topics

- Overview of Files for Import and Export
- Overview of Extensible Flexfields
- Import Extensible Flexfields
- Naming Conventions for Flexfield APIs

Import Extensible Flexfields

Use the Import option on the Manage Extensible Flexfield page to bulk import the flexfield data that includes value set, context, and context segment details.

Prerequisite

The files containing the flexfield details are available in the document repository of Oracle WebCenter Content.

Importing Flexfields

To import flexfields:

1. Sign in to the application as an implementation consultant or an administrator.
2. In the Setup and Maintenance work area, open the **Manage Extensible Flexfield** task or a similar task for importing flexfields.
3. In Search Results, from the Actions menu, select **Import**.
4. On the Upload Flexfield Data dialog box, select the WebCenter Content account to which the files were uploaded.
5. Enter the names of the separate files containing the value set, context, and context segment information. The names here must match with the names of the files uploaded to the selected account.
6. Click **Upload**. The flexfield details are imported.

> **Note:** If the import fails, click the link to the log file on the confirmation dialog box and examine the cause of failure.

Related Topics

- File Format for Importing Extensible Flexfields
- Import Flexfields, Lookups, or Profile Values Using Web Services
- Import Value Set Values Using Web Services

FAQs for Extensible Flexfields

Why did the extensible flexfield context not appear at run time?

If a deployed extensible flexfield context doesn't appear in the user interface, verify that the context is associated with one of the category's pages defined for the extensible flexfield.

Related Topics

- Why did my flexfield changes not appear in the UI?

Key Flexfields

Overview of Key Flexfields

Key flexfields provide a means to capture a key such as a part number, a job code, or an account code. A key flexfield consists of one or more segments, where each segment can have a meaning.

For example, a part number 10-PEN-BLA-450 might correspond to a black pen from supplier #450 sold by division #10 (office supplies). Behind the scenes, the application uses a unique number, 13452, for this part, but the user always sees the 10-PEN-BLA-450 part number.

The following aspects are important to understanding key flexfields:

- Architecture
- Segments and segment labels
- How to Identify Segments
- How the Override, Visible, and Rendered Properties Work
- Structures and segment instances
- Combinations
- Dynamic combination creation
- Security

Key flexfields aren't optional. You must configure key flexfields to ensure that your applications operate correctly. You configure and maintain key flexfield definitions with the Manage Key Flexfields task. To get a list of predefined key flexfields, use the Manage Key Flexfields task in the Setup and Maintenance work area. For information about specific key flexfields, see the help for the product where the associated business component is implemented.

Architecture

Flexfield metadata is stored in the flexfield metadata tables. When you configure a key flexfield, you define metadata about the key flexfield covering aspects such as:

- Segments are in a structure
- Structures in the flexfield
- Value sets in each segment

Based on the flexfield metadata, actual part numbers are captured as a combination of segment values and stored in a combinations table. A combinations table contains all the segment columns for a flexfield, a unique ID column, and a structure instance number column. The structure instance number column differentiates multiple arrangements of the segment columns. For example, a part number containing multiple segments can be represented by a key flexfield. A part number key flexfield has a corresponding combinations table. In that table, the flexfield stores a list of the complete codes, with each segment of the code in a column, with the corresponding unique ID and structure instance number for the code. When users define a new part number or maintain existing part numbers in the parts catalog, they directly maintain rows in the combinations table.

The foreign key table contains a different business entity than the combinations table. For example, the business entity in the foreign key table is order lines or invoice lines that contain foreign key references to parts for ordering. Any number of foreign key tables can reference a particular entity represented by a key flexfield.

Segments and Segment Labels

A key flexfield contains segments. Each segment contains these details:

- A prompt
- A short prompt
- Display width
- The sequential position of the segment within the key flexfield structure
- The range type
- Column name of the attribute being stored by the segment
- A default value set
- A label for the segment

How to Identify Segments

You can identify and control a segment within a key flexfield using a segment label. Segment labels act as tags for the segments, and these labels are defined by application developers. For example, say in the accounting flexfield, you want to identify which segment contains balancing information and which one contains natural account information. A segment label identifies the segment that contains natural account information. When you define your accounting flexfield, you must specify the segment labels for each segment. Some segment labels must be unique, and can't be applied to more than one segment in each structure. Other labels are required and must be applied to at least one segment in each structure.

You can also use a segment label to search for segments, such as the Cost Center label for all segments across key flexfields that store a value for the cost center. To identify and control a segment in key flexfield, you can set several segment properties in the flexfield XML with a literal value or an EL expression. These properties are attributes of the `<flexfieldLabeledSegmentHint>` element of the flexfield. These property settings apply to all segments that have the specified segment label assigned to them.

Property	Description
SegmentLabel	Indicates the segment label for the segment being configured.
Rendered	Indicates whether the segment is available on the page. You can set the value to **True**, **False**, or **EL expression**
Required	Indicates whether users must enter some data for the component before they save. You can set the value to **True**, **False**, or **EL expression**.
Read-only	Indicates whether the users can modify the segment. You can set the value to **True**, **False**, or **EL expression**.
Visible	Indicates whether the segment is visible on the page. You can set the value to **True**, **False**, or **EL expression**.
Label	Indicates the display text for the segment.
ShortDesc	Indicates the text that appears when users hover over the component.
Columns	Indicates the width of the text control in terms of the number of characters shown. The number of columns is calculated based on the default font size of the browser. You can set this property with a literal value or **EL expression**.
Override	Indicates whether a certain child component inside a parent component is visible. You can set the value to **True**, **False**, or **EL expression**. When you use this property along with the visible property, it overrides the visible property of the parent component.

How the Override, Visible, and Rendered Properties Work

Let's look at a few scenarios:

- Here's a snippet of code without the override property:

```
<fnd:keyFlexfieldPartial value="#{bindings.Kff1PaInstanceIterator}" id="kfp1" visible="false">
 <fnd:flexfieldLabeledSegmentHint
 segmentLabel="SEGMENT_LABEL_R1" visible="true"/>
</fnd:keyFlexfieldPartial>
```

  In this case, the `visible` property of the child component is set to **true** and the `visible` property of the parent component is set to **false**. So, segments with `SEGMENT_LABEL_R1` aren't visible because the `visible` property of the child component is used in conjunction with the `visible` property of the parent component.

- Here's a snippet of code with the override property:

```
<fnd:keyFlexfieldPartial value="#{bindings.Kff1PaInstanceIterator}" id="kfp1" visible="false">
 <fnd:flexfieldLabeledSegmentHint
 segmentLabel="SEGMENT_LABEL_R1" visible="true" override="true"/>
```

```
</fnd:keyFlexfieldPartial>
```

Here also, the `visible` property of the child component is set to **true** and the `visible` property of the parent component is set to **false**. But you're also setting the `override` property of the child component to **true**. So, segments with `SEGMENT_LABEL_R1` are visible because the `visible` property of the child component overrides the `visible` property of the parent component.

Remember, you must not use the `rendered` property along with the `override` property, because when you set the `rendered` property to **false** at the flexfield level, the Oracle ADF module ignores the rendered property at the segment level. For example, consider this snippet of code:

```
<fnd:keyFlexfieldPartial value="#{bindings.Kff1PaInstanceIterator}" id="kfp1" rendered="false">
 <fnd:flexfieldLabeledSegmentHint
 segmentLabel="SEGMENT_LABEL_R1" rendered="true" override="true"/>
</fnd:keyFlexfieldPartial>
```

Though you set the `rendered` property to **true** at the segment level, this property is ignored. That's because the `rendered` property is set to **false** at the flexfield level. So, make sure that you use the `visible` property instead of the `rendered` property along with the `override` property.

Structures and Segment Instances

A key flexfield structure definition includes the number of segments and their order.

In some applications, different users like to see different segment structures for the same flexfield. A key flexfield can have multiple structures if registered to support more than one structure.

The flexfield can display different fields for different users based on a data condition in your application data, such as the value of another field entered by the user or the user's role. For example, the correctly formatted local postal address for customer service inquiries differs based on locale. A postal address key flexfield could display different segments and prompts for different users based on a location condition in your application data, such as the user's role or a value entered by the user.

Each structure can have one or more segments. Thus a segment is a child of a structure. To store a particular segment, such as Cost Center, in two different structures, you must define the segment separately in each structure. Each structure may have one or more structure instances. Each instance of a structure shares the same number and order of segments, but differs in the values or value sets used in validating the segments.

You can define multiple configurations of a key flexfield structure. These structure instances have the same segment structure, in the same sequence order. They differ primarily in how each segment is validated. You define a structure instance for each key flexfield and each key flexfield structure instance.

The segments in a key flexfield structure instance are segment instances. A segment instance is a segment with a specific value set assigned to it. If a key flexfield is registered with a tree structure, you can specify a tree code for a segment instance.

Combinations

A combination is a complete code, or combination of segment values that makes up the code, that uniquely identifies an object.

For example, each part number is a single combination, such as PAD-YEL-11x14 or 01-COM-876-7BG-LTN. In these combinations, the hyphen is the segment separator. If you have ten parts, define ten combinations. A valid combination is an existing or new combination that can be used because it's currently active and doesn't violate cross-validation or security rules. A combination has different segments depending on the flexfield structure being used for that combination. Any combination is associated with only one particular flexfield structure.

Many applications refer to a key flexfield combination by using the name of the entity or the key flexfield itself. For example, Assets uses the asset key flexfield and refers to one of its combinations as an asset key or asset key flexfield. In another example, Oracle General Ledger refers to combinations of the accounting flexfield as account or GL account.

Each key flexfield has one corresponding table, known as the combinations table, where the flexfield stores a list of the complete codes, with one column for each segment of the code, together with the corresponding unique ID number (an account combination ID) for that code. Then, other tables in the application have a column that stores just the unique ID for the code. For example, you may have a part number code, such as PAD-YEL-11x14. The Parts combinations table stores that code along with its ID, 57494. If your application lets you take orders for parts, you might then have an Orders table that stores orders for parts. That Orders table would contain a single column that contains the part ID, 57494, instead of several columns for the complete code PAD-YEL-11x14. Typically, one combinations page maintains the key flexfield, where the key flexfield is the representation of an entity in your application. Maintain individual combinations, such as part numbers in the combinations page.

Dynamic Combination Creation

Dynamic combination creation is the insertion of a new valid combination into a combinations table from a page other than the combinations page. The following table lists the levels at which dynamic combination creation may be enabled.

Level Of Dynamic Combination Creation	Controlled By
Flexfield	Application development
Each usage or reference to the key flexfield	Application development
Structure instance	Administrators and implementation consultants
Other	Administrators and implementation consultants

If your key flexfield or certain usages or references of the key flexfield don't permit dynamic combination creation, you may control whether dynamic combination creation is enabled for each structure instance. If enabled, a user can enter a new combination of segment values using the flexfield window from a foreign key page. For example, when entering a transaction, a GL user can enter a new expense account combination for an account that doesn't yet exist. Your application creates the new account by inserting the new combination into the combinations table behind the scenes. Assuming that the new combination satisfies any existing cross-validation rules, the flexfield inserts the new combination into the combinations table, even though the combinations table isn't the underlying table for the foreign key page.

Related Topics

- Overview of Flexfield Deployment
- Considerations for Managing Flexfields
- Key Flexfield Structures
- How can I access predefined flexfields?
- How do I update existing setup data?

Considerations for Planning Key Flexfields

Your first step in planning your key flexfields is to determine which key flexfields your application requires.

Your plan should include these tasks:

- Determine the purpose of the key flexfield.
- Identify the number and length of its available segment columns.
- Identify if your key flexfield permits more than one structure.
- Identify if more than one structure must be defined.
- Identify the number, order and length of your segments for each structure.

Before You Begin

Once you have identified a flexfield, plan its configuration in advance. Compile a list of the UI pages and other artifacts in your deployment that are affected by the configuration. Verify that you're provisioned with the roles required to view and configure the flexfield. Use the Highlight Flexfields command in the Administration menu to view the run time page where the flexfield appears. Plan how you deploy the flexfield for test and production users and review the tools and tasks available for managing flexfields.

If you plan to use value sets, create them before configuring the key flexfield. You can't create value sets for key flexfields at the time that you add and configure key flexfield segments.

Access to Flexfield-Related Tasks

To configure flexfields and value sets, you must have access to the tasks for managing flexfields. Contact your security administrator for details. For information about product-specific flexfield tasks, such as Manage Fixed Assets Key Flexfields, refer to the product-specific documentation.

Restrictions

If you plan to use value sets, create them before configuring the flexfield. Plan your key flexfield configuration to scale to your enterprise needs. For example, if you expect to disable old cost centers and enable new ones frequently, plan a larger maximum size for your cost center value set so that you can have more available values. A 3-character value set with one thousand available values provides more room for changes than a 2-character value set with 100 available values.

Note the code name of the flexfield you intend to configure so that you find it easily in the tasks for managing key flexfields. In some cases you can configure how the flexfield appears on the page. See product-specific documentation to determine any restrictions on using product-specific key flexfields.

> **Note:** Table-validated value sets with ID columns and translated independent or dependent value sets aren't supported in key flexfields.

Reporting

To report on your data by certain criteria or sub-entities, such as account number or project or region, consider making that sub-entity a distinct segment, rather than combining it with another sub-entity. You can categorize and report on smaller discrete units of information.

Related Topics

- Considerations for Planning Value Sets

Considerations for Managing Key Flexfields

Consider the plans for a key flexfield, security, and resulting run time pages when configuring key flexfields.

Planning

Plan structures carefully and enable them for future needs. Don't change the number, order, and maximum length of segments once you have acquired flexfield data.

Structure Delimiters

A delimiter separates the segments when they appear to users. The delimiter value of a structure specifies the character used to visually separate segment values when the key flexfield is displayed as a string of concatenated segments in the UI.

Identify the delimiter value of your key flexfield carefully so that it doesn't conflict with the flexfield data. For example, if your data frequently contains periods, such as in monetary or numeric values, don't use a period as your segment separator. Any character you expect to appear frequently in your segment values or descriptions isn't a good choice for the delimiter. If you change the configuration of a key flexfield, such as the delimiter, the change affects the previously stored key flexfields with that structure.

Security

Oracle data security enforces value set security.

Within key flexfields, value set security applies to the selection of the individual segment values in the segment list of values. When selecting a key flexfield segment value from the combinations table, data security permits display of only the combinations whose segment values you have access to. Applications development controls whether or not value set security rules propagate to the foreign key table. By default they do.

Run Time Pages

Application development determines the user interface (UI) pages used to render flexfields. The types of key flexfield UI pages are as follows:

- Combinations pages where the underlying entity objects use the combinations table itself
- Foreign key pages where the underlying entity objects contain a foreign key reference to the combinations table
- Partial usage pages where some or all of the key flexfield's segment columns are in a product table

The same key flexfield can be used in different ways on different pages.

A page with a foreign key reference has a base table or view that contains a foreign key reference to a combinations table with the actual flexfield segment columns. This lets you manipulate rows containing account combination IDs (account combination).

A page with partial usage of a key flexfield presents segments that are defined on a product's transactional table in addition to being defined on a combinations table. In the case of a partial usage page, only a part of the configuration is likely to be visible. This enables the key flexfield to act more like a descriptive flexfield.

An account combination maintenance page or combinations page presents the combinations table. This enables directly creating and maintaining account combinations. The combinations table contains all key flexfield segment columns and a unique ID column.

A typical application has only one combinations page. An application might not have a combinations page if it doesn't support maintenance by administrators.

A page containing a search region enables users to select which attributes of the key flexfield view object to use as criteria to search for flexfield metadata.

For example, you can configure seven segments for the Account key flexfield. In a foreign key reference page, users see the typical key flexfield picker with all seven segments where they can search for combinations. In a partial usage page using the same key flexfield, users potentially could see only a single segment such as the Cost Center labeled segment, or they might see multiple segments but displayed as individual segments rather than options for selecting combinations.

Related Topics

- Key Flexfield Structures
- Example of a Key Flexfields
- Key Flexfield Structure Instances and Segment Instances
- Considerations for Enabling Key Flexfield Segments for Business Intelligence
- Flexfield Usages

Key Flexfield Structures

A key flexfield structure arranges the segments of a key so that you can reuse a single key flexfield in multiple combinations of the same segments or a subset of those segments.

Multiple instances of a single structure can accommodate differences in the value sets assigned to the structure's segments.

The structure determines the following aspects of a key flexfield:

- The segments to include
- The order of the segments
- Segment labels on the included segments
- Properties for each segment applied to the instances of the segments in an instance of the structure

Managing Key Flexfield Structures

All the segments defined for a key flexfield are available to be included in a key flexfield structure.

You can define as many segments as there are defined segment columns in your key flexfield combinations table. Ensure that you add segments in the order that your key requires. Once deployed, the order can't be changed.

Enable segments to indicate that they are in use. A flexfield doesn't display disabled segments in run time. To protect the integrity of your data, disable a segment if you have already used it to enter data.

Related Topics

- Key Flexfield Structure Instances and Segment Instances

Key Flexfield Structure Instances and Segment Instances

A key flexfield structure can have one or more alternate structure instances. The instances of a key flexfield structure share the following aspects of the structure.

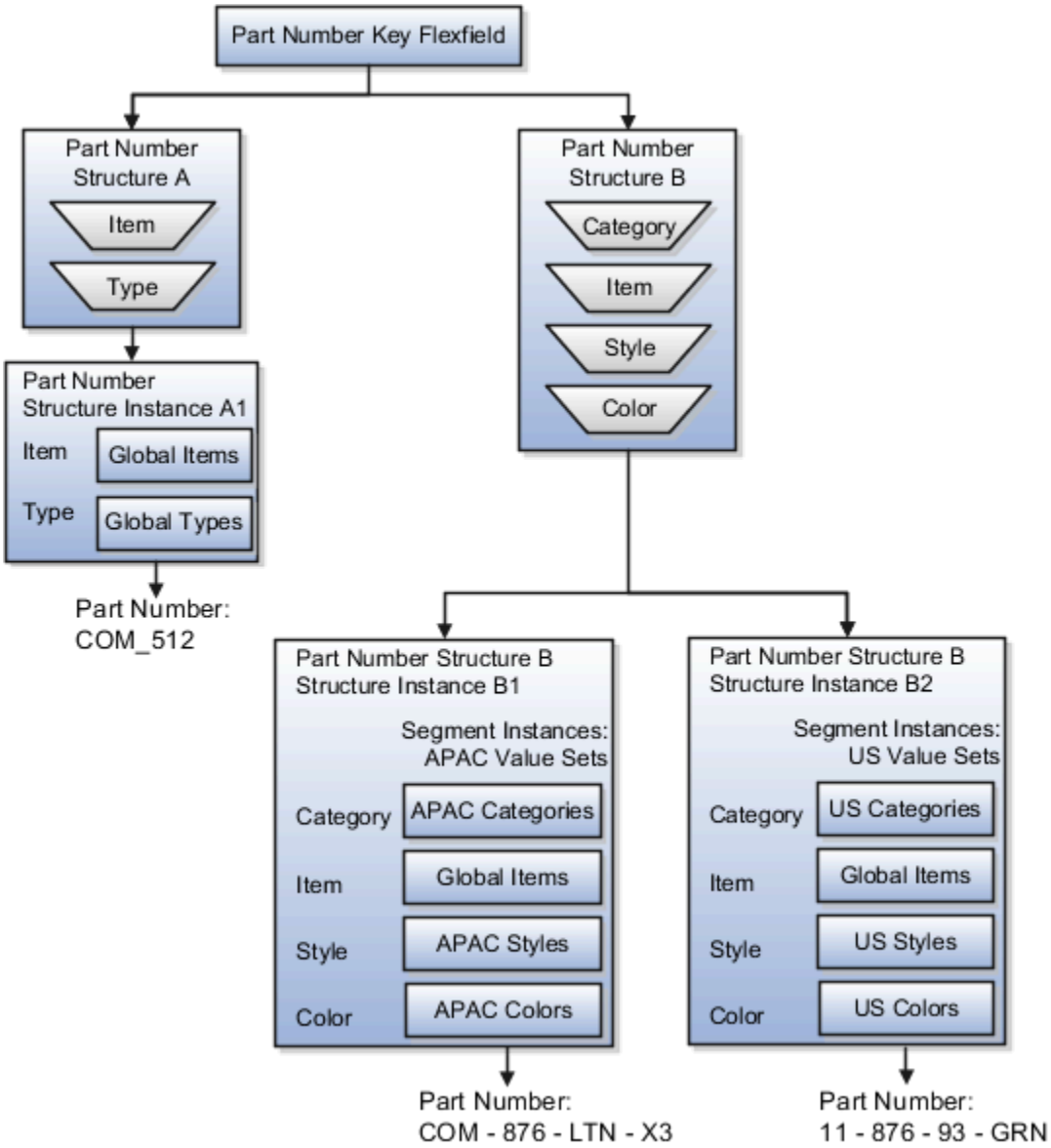
- The same set of segments
- The same arrangement of segments

- The same properties at the segment and structure levels

The differences among structure instances include whether dynamic combination creation is permitted. Likewise, at the structure instance level, differences among segment instances are based on the following:

- Value set
- Default type and default value
- Tree code
- Whether the segment is any of the following:
    - Required
    - Displayed
    - Enabled for business intelligence
    - Optional or required as a query criterion

For example, you can use one group of value sets for the US and another for France.



The structures differ in the number of segments and the segment separators used. The structure instances share all the properties defined for that structure. However, the structure instances may vary if the properties are defined at the structure instance or segment instance level. For example, the value set assigned to the segment instances.

Query Required Segment Instances

You can designate a key flexfield segment instance as a query for making it a selectively required attribute. A user can use it as a key flexfield combination search. On the Manage Key Flexfields UI page, if you indicate that a segment instance requires indexing, add the column representing the segment to the database index. Commonly, a database administrator (DBA) adds columns to the database index.

Following deployment, the combination picker of the key flexfield displays the query required attributes as selectively required. A user must specify at least one of the query required attributes in the search criteria. This prevents unnecessary searches that could cause performance issues.

For example, you mark the cost center and account attributes as query required and ensure that the corresponding columns in the database are indexed. A user can search for combinations by entering cost center or account or both as search criteria. No search is performed if a user doesn't enter at least one query required attribute as search criteria.

Tip: Index the Structure Instance Number column on your combinations table to improve run time performance.

Dynamic Combinations

If a key flexfield supports dynamic combination creation, you can select to enable this feature by selecting **Dynamic Combination Creation Allowed**. As a result, users enter values at run time that produce new account combinations for the flexfield. If **Dynamic Combination Creation Allowed** isn't enabled, new valid combinations can only be entered using the combinations table for the flexfield.

Trees

You may define a tree code for the value set assigned to the segment instance. When you assign the tree code to the segment instance, tree hierarchy search operations are available on the segment values.

For a segment instance to be based on a tree, the following must be true.

- Application development registered the key flexfield with a tree structure. The tree structure may be fixed across all segments in the flexfield, or may vary across segments.
- A tree code for that tree structure exists.
- The tree code includes tree versions containing the values of the value set assigned to the segment instance.
- You assign the required tree code directly to the segment instance.

If these conditions are satisfied, you can assign the same or different tree codes to the different segment instances that use the same value set.

Related Topics

- Flexfield Segment Properties

Cross-Validation Rules

You can define cross-validation rules across segments to control the creation of key flexfield code combinations. These rules enforce whether a value of a particular segment can be combined with specific values of other segments to form a new combination.

The following table compares segment validation to cross-segment validation:

Type of validation	Type of control
Segment validation	Controls the values you can enter for a particular segment
Cross-segment validation	Controls the combinations of values that administrators and end users can create for key flexfields

Note: You can use cross-validation rules for any key flexfield that has cross-validation enabled. See the documentation for your key flexfield to determine if it supports cross validation.

Cross-validation rules prevent the creation of combinations with values that can't coexist in the same combination. For example, your company requires that all revenue accounts must have a specific department. Therefore, account combinations that have revenue account values, such as all values between 4000 and 5999, must have a corresponding department value other than 000, which indicates no department is specified. You can define cross-validation rules that disallow creation of combinations with incompatible segments, such as 4100-000 or 5000-000.

Alternatively, suppose your accounting key flexfield has an Organization segment with two possible values, 01 and 02. You also have a Natural Account segment with many possible values, but company policy requires that Organization 01 uses the natural account values 001 to 499 and Organization 02 uses the natural account values 500 to 999. You can create cross-validation rules to ensure that users can't create a general ledger account with combinations of values such as 02-342 or 01-750.

The following aspects are important to understanding cross-validation rules:

- Rule Definitions
- Enforcement
- Timing

Rule Definitions

The following table contains definitions used in cross-validation rules:

Rule Definition	Purpose
Name	Uniquely identifies cross-validation rules in a deployment.
Description	Helps administrators identify the purpose of the rule.
Error message	Explains why the attempted combination violates the rule.
Start Date, End Date	Indicates the period of time when the rule is in effect.
Enabled	Determines whether the rule is enforced.
Condition filter	Determines the conditions in which an enabled cross-validation rule should be evaluated.
Validation filter	Determines the validation that the rule enforces when that condition is met.

When the event specified in the condition filter is applicable, the validation filter condition must be satisfied before the combination can be created. If the event specified in the condition filter isn't applicable, then the combination is considered to pass the rule and the rule won't be evaluated even if it's enabled.

Note: If you don't specify any statement in the condition filter, then the condition is always true and the rule is always evaluated.

Enforcement

Cross-validation prevents creation of invalid combinations by administrators using maintenance pages and end users using dynamic insertion in foreign key pages.

Enabled rules are enforced when there is an attempt to create a new combination of segment values. Disabled rules are ignored. Deleting the rule has the same effect, but you can re-enable a disabled rule.

Timing

When users attempt to create a new combination, the key flexfield evaluates any cross-validation rules that are enabled and in effect.

> **Note:** Cross-validation rules have no effect on combinations that already exist. The flexfield treats any existing invalid combinations that pre-date the rule as valid.

If you want to prevent users from using previously existing combinations that are no longer valid according to your cross-validation rules, manually disable those combinations using the combinations page for that key flexfield.

When defining a cross-validation rule, specify a start and end date to limit the time when the rule is in effect. The rule is valid for the time including the From and To dates.

Related Topics

- Considerations for Cross-Validation Rules

Considerations for Cross-Validation Rules

To validate the key flexfield combinations of segment values across segments, optimize your cross-validation rules to improve the experience of administrators and users.

Consider the following when defining cross-validation rules:

- Filters
- Rule Complexity
- Maintenance

Filters

A cross-validation rule includes a condition filter and a validation filter. The rule is evaluated using the following logical order: If the condition filter is satisfied, then apply the validation filter.

The condition filter describes the event when the rule is evaluated. If the event specified in the condition filter isn't applicable, then the rule isn't evaluated, even if enabled. When the event specified in the condition filter is applicable, the validation filter condition must be satisfied before the combination can be created.

For example, your organization has determined that a certain company value called Operations can't use a specific cost center called Marketing. You can define a cross-validation rule to validate your combinations.

1. The rule evaluates the company condition filter.
2. When company is equal to Operations, the rule evaluates the cost center validation filter.
3. When cost center is equal to Marketing, the rule prevents a combination from being created.
4. The error message you defined for the rule displays to inform the user that the attempted combination violates the rule.

Such a rule doesn't affect the creation of combinations with Marketing cost center and company values other than Operations.

Rule Complexity

For optimal performance and ease of understanding, define several simple validation rules instead of using one complex rule. Simple validation rules let you provide a more specific error message and are easier to maintain over time.

Avoid rules that control validation across more than two segments, where possible. While you can define cross-validation rules that span two or more segments, it becomes difficult to interpret cross-validation error messages and rectify invalid key flexfield combinations.

Maintenance

To maintain consistent validation, review existing key flexfields when you update your cross-validation rules. Regardless of your current validation rules, you can use an existing key flexfield combination if it's enabled. Therefore, to ensure accurate validation, you must review your existing combinations and disable any combinations that don't match the criteria of your new rules.

> **Tip:** To keep this type of key flexfield maintenance to a minimum, decide upon your cross-validation rules when you first set up your key flexfield structure. Define cross-validation rules before creating combinations and before combinations are used in transactions.

To prevent users from using existing combinations that are no longer valid according to your cross-validation rules, disable them using the combinations page.

Related Topics

- Cross-Validation Rules

Overview of Cross-Validation Rules in General Ledger

You can use cross-validation rules to determine the valid account combinations that can be dynamically created as users enter transactions or journal entries.

Once enabled, a cross-validation rule determines whether a selected value for a particular segment of an account combination can be combined with specific values in other segments to form a new account combination.

For example, your organization has determined that the company Operations can't use the Marketing cost center. You can define a cross-validation rule such that, if the company is Operations, then validate that the cost center isn't Marketing. New account combinations have to satisfy all of the cross-validation rules enabled for the chart of accounts before they can be created.

Entry and Maintenance

This table describes the different methods that you can use to enter and maintain cross-validation rules.

Method	Navigation	What You Can Do
Manage Cross-Validations page, Rules tab	In the Setup and Maintenance work area, use the **Manage Cross-Validation Rules** task in the Financial Reporting Structures functional area.	• Create • Edit • View

Method	Navigation	What You Can Do
	Note: As an alternative navigation, select the **Manage Cross-Validation Rules** action on the Manage Chart of Accounts Configuration page.	• Upload to the interface table • Download from the interface table • Import from the interface table into the application • Download from the application • Submit the **Manage Account Combination Validation Rules** process
Cross-Validation Rules Import file-based data import (FBDI)	Access the FBDI template from either of these locations: 1. In the Oracle Help Center (https://docs.oracle.com), open the Oracle Fusion Cloud Financials File-Based Data Import (FBDI) for Financials guide. 2. In the Setup and Maintenance work area, use the **Manage Cross-Validation Rules** task in the Financial Reporting Structures work area.	Create and edit large volumes of cross-validation rules
Create Cross-Validation Rules desktop-integrated spreadsheet	In the Setup and Maintenance work area, use the **Create Cross Validation Rules in Spreadsheet** task in the General Ledger functional area.	Create a large volume of cross-validation rules.

To edit error messages for cross-validation rules, use this task in the Setup and Maintenance work area:

- Offering: Financials
- Functional Area: Financial Reporting Structures
- Task: Manage Messages for General Ledger

Tip: When you export or import cross-validation rules to a new instance using an export or import project in the Functional Setup Manager, you must add the **Manage Messages for General Ledger** task before the **Manage Cross-Validation Rules** task. You must export or import the messages before exporting or importing the cross-validation rules.

Existing Account Combinations

If existing account combinations violate newly enabled cross-validation rules, those account combinations continue to be valid. Before you disable existing account combinations that violate your rules and that you no longer use, move the balances in those accounts to the correct accounts. Then disable the account combinations to prevent further posting. Best practice is to define and enable cross-validation rules before account combinations are created, transactions or journal entries are imported or entered, and balances are loaded.

Related Topics

- Cross-Validation Rules
- Considerations for Cross-Validation Rules
- Create Cross-Validation Rules in a Spreadsheet
- How Cross-Validation Rule Violations Are Managed
- How do I update existing setup data?

Considerations for Enabling Key Flexfield Segments for Business Intelligence

A key flexfield registered in the database as enabled for Oracle Transactional Business Intelligence (OTBI) includes a BI Enabled setting for each of its segment instances. When a segment instance is BI-enabled, it's available for use in Oracle Transactional Business Intelligence.

The following aspects are important in understanding BI-enabled key flexfield segments.

- Flattening business components to use BI-enabled segments in Oracle BI
- Equalizing segments to prevent duplication and complexity in the flattened component
- Mapping attributes of flattened business components to logical objects in Oracle BI
- Managing the labels that map segments to logical objects in Oracle BI

After you deploy a business intelligence-enabled flexfield, use the Import Oracle Data Extensions for Transactional Business Intelligence process to import the flexfield changes into the Oracle Business Intelligence repository. Users can make use of the newly-generated attributes in business intelligence applications. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

Flattening

When you deploy a business intelligence-enabled key flexfield, the deployment process generates an additional set of flattened business components for use in business intelligence. The flattened business components include attributes for business intelligence-enabled segment instances only.

If you assigned a label to a segment, the flattened components include a single attribute representing all segment instances with that label. If you didn't assign a label, the flattened components include a discrete attribute for each BI-enabled segment instance in each structure.

Mapping to Logical Objects in Business Intelligence

You can simplify reporting by representing similar segments as a single logical object in Business Intelligence. If you assign a label to segments that serve the same purpose in different structures, you can consolidate the segments into a single attribute. This prevents duplication and the extra workload and complexity that result from the flattening process. For example, an organization may have more than one definition of its key accounting flexfield to support different requirements for accounting reporting. A US Accounting Flexfield structure may have a segment called Subaccount to track project expenditures. The same type of information may be tracked in a UK accounting flexfield structure with a segment called Project. Equalize these two segments to create a single list of values for reporting.

Non-labeled segments aren't equalized across context values, so the flattened components include a separate attribute for each segment for each structure. It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

Assign a label to a segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence. Assigning a label to a segment serves to equalize the attribute across structures, as well as map the equalized attribute to business intelligence.

Managing Labels

You may assign a predefined label (if available) to segments or create labels for assignment, as needed. Specify a code, name, and description to identify each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object minimizes the steps for importing the flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across structures.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label doesn't exist in business intelligence, you must manually map the segment to the required logical object when importing into Oracle Business Intelligence. In addition, segments without labels can't be equalized across structures. The flattened components include a separate attribute for each non-labeled segment in each structure.

Importing to Oracle Business Intelligence Repository

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly flattened business components in business intelligence. Then propagate the flexfield object changes. When you import the metadata into the Oracle Business Intelligence repository, you must do so as the FUSION_APPS_BI_APPID user.

To import flexfield changes into the Oracle Transactional Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Data Extensions for Transactional Business Intelligence process. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

> **Note:** When you import a flexfield into the Oracle Business Intelligence repository, you see both `<name>_` and `<name>_c` attributes for each segment, along with some other optional attributes. The `<name>_` attribute contains the value. The `<name>_c` attribute contains the code of the value set that the value comes from, and is used for linking to the value dimension. You must import both attributes.

Related Topics

- Considerations for Enabling Descriptive Flexfield Segments for Business Intelligence
- Overview of Key Flexfields
- Enable Key Flexfields for Business Intelligence Reporting
- Overview of Flexfield Change Import

Example of a Key Flexfields

A key flexfield can capture expense account information.

Scenario

When entering details for each expense, the user specifies an account to which the expense is charged.

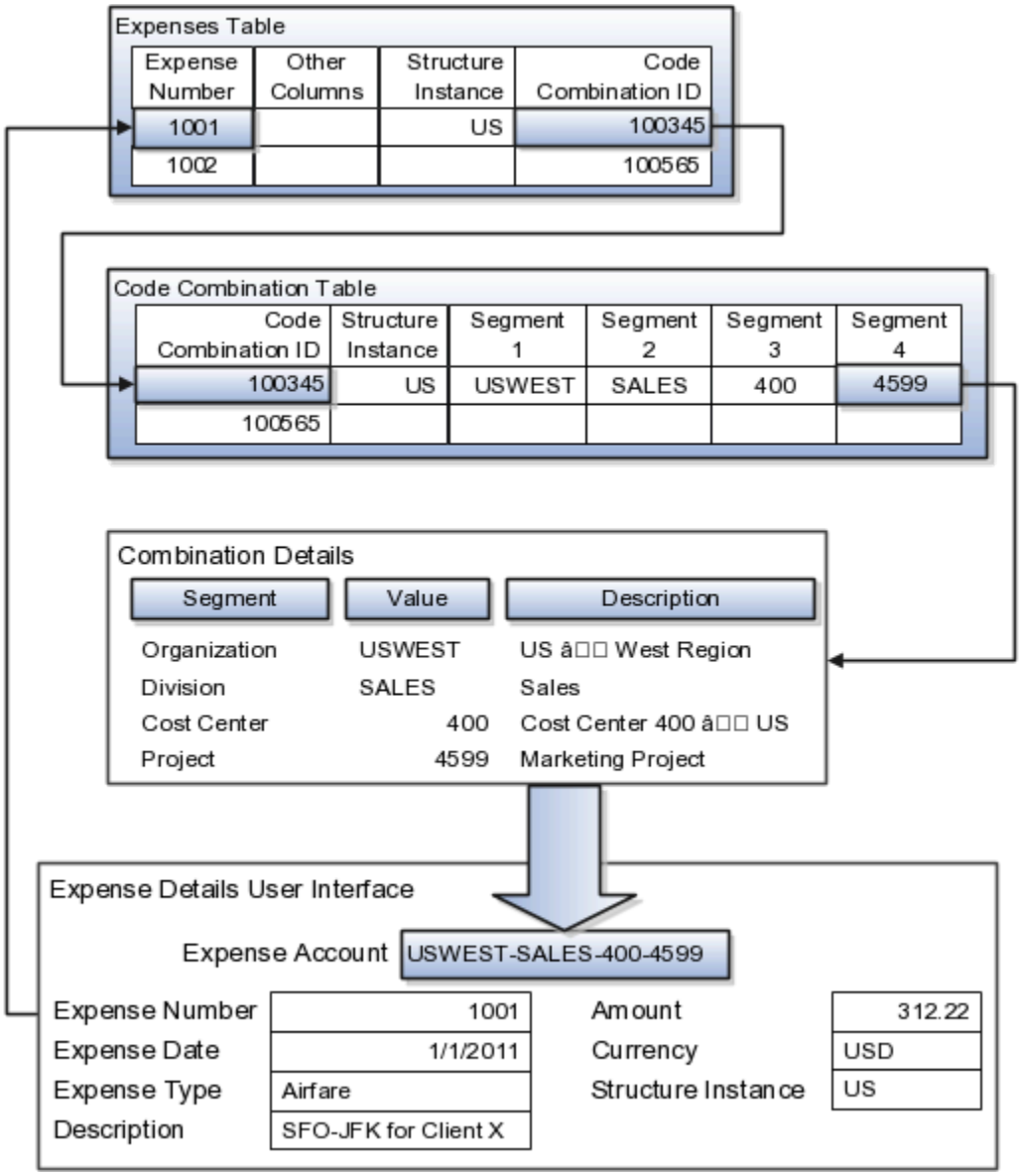
Entering Expense Accounts

A user interface for entering expenses helps the user select an expense account that identifies the cost center and other details needed for processing the expense.

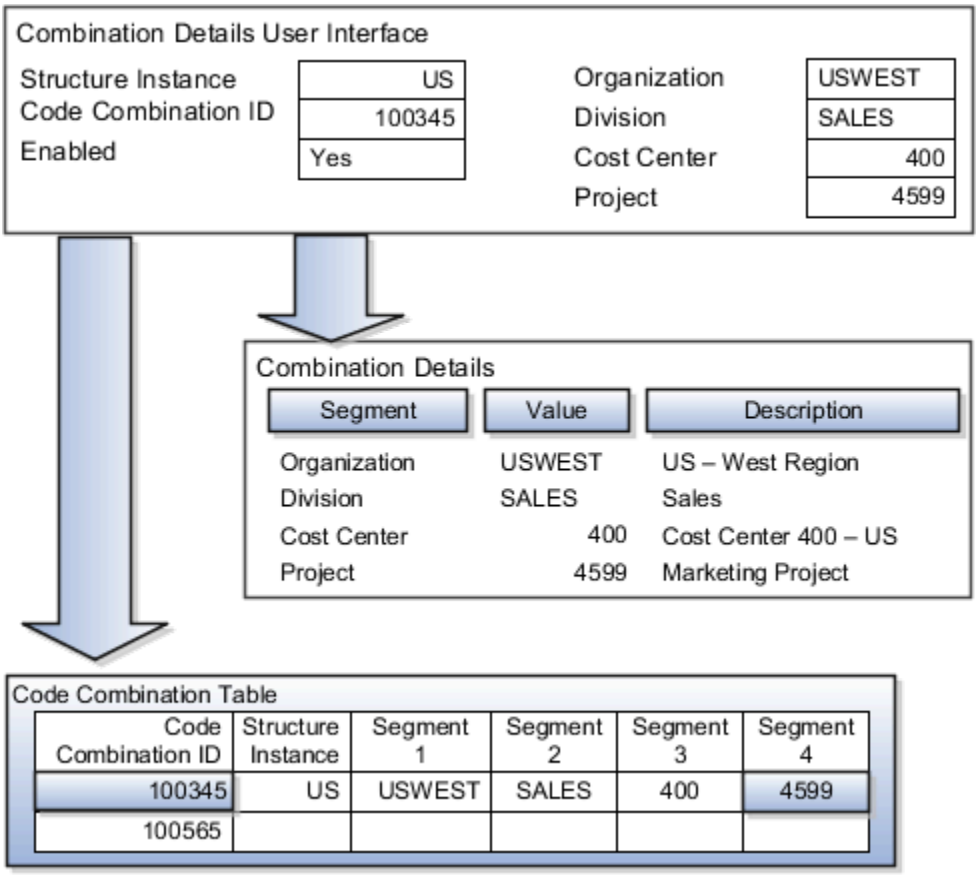
The expense account field is a foreign key reference to a account combination (EXPENSE_LINES.EXPENSE_ACCOUNT = ACCOUNT.COMBINATION).

Account combinations Table for Entering Accounts and Employees

The account combinations table supports entering account information, such as for expense accounts.



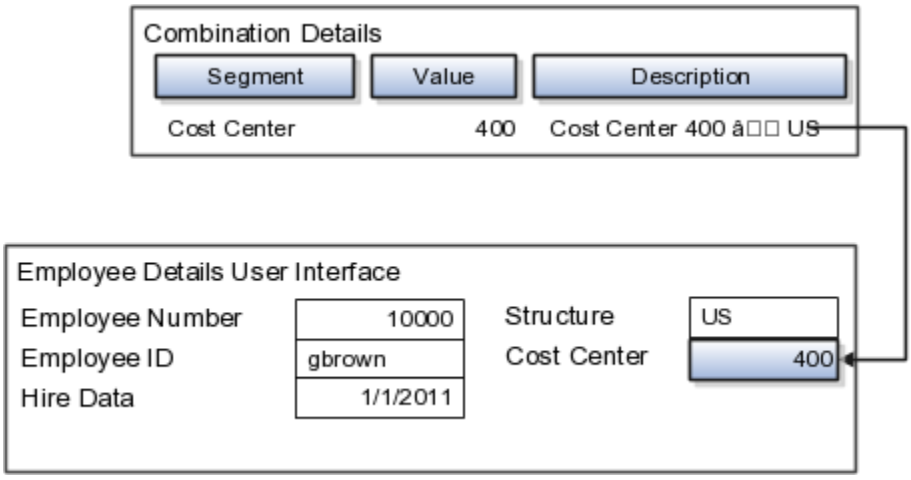
The combinations page, which is the maintenance page for the key flexfield, is for managing rows in the combinations table. In this example, managing the combinations means adding or editing account numbers that adhere to the key flexfield metadata rules.



If dynamic combination creation isn't enabled, then when entering an expense line, the user can only select an account that already exists in the ACCOUNTS (combinations) table. If they require an account that doesn't exist, they must consult with the appropriate application administrator who can add the account to the combinations table.

If dynamic combination creation is enabled, then when entering an expense line, the user can either select a preexisting account, or type in a new account that's created dynamically on the fly in the ACCOUNTS (combinations) table. Once the new combination is created, the same user can refer to it on the expense line.

When managing employee information, the user specifies the cost center that the employee belongs to. The cost center field corresponds to a single, labeled segment of the Account Key Flexfield and has metadata defined such as the allowable value set for that segment.



Related Topics

- Example of One Chart of Accounts Structure with Many Instances

Attachments

Attachments

You can use attachments to provide supplementary information to specific business objects. Attachments can be URLs, desktop files, text, or repository folders.

For a business object you may view, create, delete, or edit attachments, depending on your role and granted privileges.

Repository

Attachments are stored in a content management repository provided by Oracle WebCenter Content Server. Users managing attachments can't interact with the repository unless the repository mode is enabled. When enabled, users can share attachments among objects, update attachments, and perform other tasks. Access to the attachment files is controlled by a digital signing mechanism.

All attachments are scanned for viruses before they're stored on the content management repository. If a virus is detected at the time of upload, the attachment request fails and the user is notified about it.

Security

Data security applicable to a specific business object also applies to its attachments For example, if a user has no access to a specific expense report, then that user can't access its attachments. You can also use attachment categories to control access and actions on attachments, based on roles associated with that category.

Related Topics

- Attachment Entities
- What's an attachment category?

Attachment Entities

An attachment entity is usually a database entity, for example a table or view, that represents a business object with which attachments are associated. Each attachment UI must be defined with a corresponding attachment entity.

Attachment entities are used only in the context of attachments and exist separately from the database entities that they're based on.

In the Setup and Maintenance work area, use the **Manage Attachment Entities** task to edit and create attachment entities. You can either use the predefined attachment entities with attachment UIs or create entities, for example when developing your own UIs.

The entity name should match the name of the table or view that represents the business object used for attachment. The name is also used in the repository folder that's automatically created to store attachments for the entity.

The data security policies associated with the database resource defined for the attachment entity apply to attachments for that entity. However, the security setting must be enabled for that entity. The database resource value must match the value in the OBJ_NAME column in the FND_OBJECTS table for the business object that the entity represents.

Related Topics

- How Attachment Entities and Attachment Categories Work Together
- Modules in Application Taxonomy
- How Data Resources and Data Security Policies Work Together

How Attachment Entities and Attachment Categories Work Together

The association between attachment entities and categories determines the use of categories for an entity. For example, categories associated with the expense report attachment entity are available in the attachment UIs for expense reports.

You can configure the associations when managing either entities or categories. Between the Manage Attachment Entities and Manage Attachment Categories pages, any change in association on one page automatically reflects on the other page.

Managing Entities

In the Setup and Maintenance work area, go to the **Manage Attachment Entities** task. Determine the attachment categories that are relevant to a particular entity and assign it to those categories. Each entity must have at least one category. For a particular expense report page with attachments functionality, you can specify which category to use for the attachment. Accordingly, the data security defined for each category is applied to the attachments on that page if security is enabled.

Managing Categories

In the Setup and Maintenance work area, go to the **Manage Attachment Categories** task. If a category must be associated with multiple attachment entities, you can complete that association using this task. The association you define here reflects on the Manage Attachment Entities page for the respective entities.

Related Topics

- What's an attachment category?
- Attachment Entities

Attachments Troubleshooting

Attachments UIs are very user-friendly and easy to work with. You may encounter issues in certain cases such as you modify the attachments, for example create additional attachment categories, or implement data security on them.

Issue: Can't View, Add, Update, or Delete Attachments

You may encounter the following issues when trying to view attachments or perform actions such as adding attachments.

- You can no longer see specific attachments that were earlier visible.
- You can no longer update or delete attachments.
- You get an error stating that you don't have permission to add attachments.

Resolution

Use the Manage Attachment Entities page to ensure that attachment categories are associated to the relevant attachment entity. You might need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or what categories to assign.

If data security is implemented on the categories for the attachment entity, verify that the Enable Security check box is selected in the Manage Attachment Entities page for that entity. Also, make sure that users have a role that has the necessary privileges. The following table lists the privileges required to view, add, update, or delete attachments with a specific attachment category.

Action	Privilege
View	Read Application Attachment (FND_READ_APPLICATION_ATTACHMENT_DATA)
Add or Update	Update Application Attachment (FND_UPDATE_APPLICATION_ATTACHMENT_DATA)
Delete	Delete Application Attachment (FND_DELETE_APPLICATION_ATTACHMENT_DATA)

For example, if users have the Read Application Attachment privilege for all categories associated with the expense report attachment entity, except the Receipts attachment category, then they can view all expense report attachments except those created with the Receipts category. Likewise, if users don't have the Update Application Attachment

privilege for any attachment categories tied to the expense report attachment entity, then they can't create any attachments for the expense reports.

Certain attachments UI have predefined restrictions for users on categories. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

Issue: Missing Attachment Category

You can view existing attachments but the attachments no longer have an attachment category associated with them.

Resolution

When the attachment was added, at least one category existed for the corresponding attachment entity. Since then, the entity was edited so that it no longer has any assigned categories, so the user can't see the category associated with that attachment.

Use the Manage Attachment Entities page to reassign attachment categories to the relevant attachment entity. For example, if users can no longer see the Receipts attachment category for an attachment to an expense report, then search for the expense report attachment entity and assign to it the Receipts category. You may need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or any additional categories to assign.

Certain attachments UI have predefined restrictions for users on categories. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

Related Topics

- Attachment Entities
- How Attachment Entities and Attachment Categories Work Together
- What's an attachment category?

FAQs for Attachments

What's an attachment category?

You must use an attachment category to classify and secure an attachment. While adding attachments, you can view the available attachment categories and add the attachment to one of them.

For example, attachments for an expense report can be categorized as receipts, scanned invoice images, and so on.

In the Setup and Maintenance work area, use the **Manage Attachment Categories** task. You can associate roles with categories to restrict user access and actions for an attachment entity. You can also create and manage categories for your own purpose, involving specific attachments with specific security requirements.

Related Topics

- How Attachment Entities and Attachment Categories Work Together
- Modules in Application Taxonomy

9 Other Common Setup and Maintenance Tasks

Home Page Setup

Configure Infolet Display

Use the Home Configuration page in the Structure work area (**Navigator** > **Configuration** > **Structure**) to configure the display settings of infolet pages in the Analytics section of the home page.

If you're using a panel or banner layout, the home page displays the page control containing icons that you use to go to infolet pages.

Define Settings

You can rename infolet pages, change their visibility settings, and reorder them. But before you start, activate a sandbox that has the Structure tool in it.

On the Home Configuration page, you can do these tasks:

- Click the infolet page name to rename it.
- Click the **Visible** field for an infolet page to change its visibility setting. You can show or hide specific infolet pages on the home page. To do so, select any of these options:
    - Yes: The infolet page appears on the home page.
    - No: The infolet page doesn't appear on the home page.
    - EL expression: The evaluation of the EL expression decides the visibility of the infolet page on the home page for specific user roles.
- Use the **Move Up** and **Move Down** icons to adjust the relative positions of the infolet pages on the home page.

If you're using a panel or banner layout, you can use profile options to define settings for the filmstrip, which appears between the global header and the page title:

- To enable users to use the filmstrip, set the Springboard Strip Enabled profile option (FND_USE_FILMSTRIP) to Yes.
- If the FND_USE_FILMSTRIP profile option is set to Yes, then you can display the filmstrip as expanded by default. To do so, set the Springboard Strip Expanded profile option (FND_EXPAND_FILMSTRIP) to Yes. A user can still collapse or expand the strip on any page, and when done, this profile option is set by default for subsequent sessions of that user.

Related Topics

- Set Profile Option Values
- Define Home Page Appearance
- Examples of EL Expressions
- Overview of Sandboxes
- Create and Activate Sandboxes

Define Home Page Appearance

Use the Themes tab in the Appearance work area to first select your home page layout and then define its display settings. And then use the Home Page Display tab to define the display settings of your home page.

Based on the home page layout you're using, the options available on the Home Page Display page might vary.

Let's see how to define the home page appearance.

1. Activate a sandbox that has the Appearance tool in it. Don't include spaces or special characters in the sandbox name.
2. Click **Navigator** > **Configuration** > **Appearance**.
3. Click the Home Page Display tab.
4. In the **Name** column of the table, click any section name to rename it.
5. Click the **Visible** field for a section to change its visibility setting. You can show or hide the section on the home page.
    - Yes: The section appears on the home page.
    - No: The section doesn't appear on the home page.
    - EL expression: The evaluation of the EL expression decides whether the section appears on the home page for specific user roles.
6. In the **Order** column, use the **Move Up** and **Move Down** icons to adjust the relative positions of the sections on the home page.
7. Click **Apply**.

If you're using a panel or banner layout, do these tasks:

1. Activate a sandbox that has the Appearance tool in it. Don't include spaces or special characters in the sandbox name.
2. Click **Navigator** > **Configuration** > **Appearance**.
3. Click the Home Page Display tab.
4. Select one of these options to display on the home page:
    - **Announcements**: Displays employee announcements.
    - **Cover image**: Displays the image for the main panel or banner, which you specify on the Themes page.
    - **None**
5. Specify whether to display the photo in the main panel or banner of the home page from HCM.
6. Click **Apply**.

Related Topics

- Configure Infolet Display
- Manage Themes
- Overview of Configuring Themes and Home Page Settings
- Configure Classic Themes
- Overview of Sandboxes

Create and Enable Announcements

Use the Announcements page to create, edit, or delete company announcements. After you create announcements, you can enable them to display on the home page, and also specify which user roles can see specific announcements on the home page.

You can also use the Announcements REST resource to create, edit, view, or delete announcements. Your application users can also create or edit announcements on their own, but they must have the Manage Help Content (ATK_CUSTOMIZE_HELP_TOPICS_PRIV) privilege.

Create Announcements

1. Click **Navigator** > **Tools** > **Announcements**.
2. Click **Create**.
3. Specify the details, such as subject, start date, and end date.
4. Select a category. If you select **User-Defined**, a text box appears, where you can provide more details.
5. Select any of these options to upload an image. Make sure your image width is 950 to 975 px and height is 650 to 765 px to avoid image distortion.
    - **Predefined**: Select an image from the list.
    - **File**: Browse and select a file from your local computer.
    - **URL**: Enter a full URL for the image.

    > **Note:** You can't delete announcement images or resize them.

6. From the **Visible** list, select any of these options:
    - **Yes**: The announcement appears on the home page.
    - **No**: The announcement doesn't appear on the home page.
    - **EL Expression**: The evaluation of the EL expression decides whether the announcement will appear on the home page for a specific user role.
7. If you've selected **EL Expression** from the **Visibility** list, click the **Edit** icon next to the **Visibility** list. Then enter a value or expression, and click **Validate** to make sure that the validation result is **True**. For example, you can enter the EL expression in the #{securityContext.userInRole['<role-name>']} format.
8. Add the content in the text box. You can format your text using the formatting options.
9. Click **Save and Close**.

Your changes on the Announcements page apply immediately to all users, even if you saved your changes while a sandbox is active and not yet published.

Edit or Delete Announcements

1. Click **Navigator** > **Tools** > **Announcements**.
2. Select the announcement that you want to edit or delete.
3. Edit the announcement details or click **Delete**.

Enable News and Announcements Section on the Home Page

You can use the Appearance work area to determine whether to display the News and Announcements section on the home page. The News and Announcements section on the home page displays the entire announcement along with the subject and image. But if you're using a panel or banner layout, you'll see only the announcement content, not the subject or image in the panel or banner.

1. Click **Navigator** > **Configuration** > **Appearance**.
2. Click the Home Page Display tab.
3. Select **Yes** for News and Announcements, and click **Apply**.

> **Note:** If you're using a panel or banner layout, select **Announcements** from the home panel options, and then click **Apply**.

Related Topics

- Overview of Configuring Themes and Home Page Settings
- Why can't I see announcements on my home page?
- Announcements REST Endpoints

FAQs for Home Page Setup

How can I rename an icon for an infolet page in the page control on the home page?

You can rename an icon for an infolet page using the Home Configuration page of the Structure work area. To open this page, select **Configuration** > **Structure** from the Navigator menu, and then click the **Home Configuration** tab.

Related Topics

- Configure Infolet Display

Set Up Sender Policy Framework (SPF)

If you send an email from Oracle Applications Cloud and want the email to use your domain, you must set up Sender Policy Framework (SPF).

Setting up the framework ensures that your domain is protected and your messages are delivered correctly. By updating the SPF record, you authorize the Oracle email servers to send emails on behalf of your domain. When the recipient receives your email, the SPF record of your domain is validated to determine if it's a valid email. Only after validation, your message is delivered.

To set up SPF, do these tasks:

- Have your IT Administrator update your SPF record with this statement:

  `include:spf_c.oraclecloud.com`

- Validate your SPF record by using an SPF record checker tool. For example, you can use the SPF Surveyor tool to authenticate your domain.

  To use the SPF Surveyor tool, do these tasks:

  a. Go to `https://dmarcian.com/spf-survey/`.
  b. Enter the domain you are using for the email, such as `oracle.com`.
  c. Click **Survey domain**.

     A message is displayed indicating the validation results.

Guidelines for Setting Up General Troubleshooting

To share application-related issues with the help desk, users can record the on-screen activity while they reproduce the issues. The help desk can then view those recordings for troubleshooting the issues.

Some advanced users might also need detailed information present on the About This Page dialog box. Therefore, to set up your application for troubleshooting, make sure that your users have the required access to record and view issues. It's also important to determine how many users can record at the same time.

Access

Check with your security administrator that the appropriate users are assigned roles that inherit the following privileges:

- **Record and View Issue (FND_RECORD_AND_VIEW_ISSUE_PRIV):** To create a basic recording
- **Set Issue Recording Advanced Options (FND_SET_ISSUE_RECORDING_ADVANCED_OPTIONS_PRIV):** To set advanced options before starting the recording
- **View Version Information (FND_VIEW_VERSION_INFORMATION_PRIV):** To see the versions that technical components of the application are on

Number of Users

Recordings are stored on servers, and by default, up to five users can record at the same time on each server. For performance reasons, you can set the Maximum Number of Users Allowed to Record Issues (ORA_FND_RECORD_ISSUE_MAX_USERS) profile option to a number lower than five.

Related Topics

- Set Profile Option Values
- Record Issues to Troubleshoot
- How can I view the version information of an application?

10 External Integration

Web Services

Overview of Web Services

Use web services to integrate web-based applications into your Oracle Applications Cloud. Web services expose business objects and processes to other applications using open standards-based technologies.

Web services support development environments and clients that comply with these open standards:

- Extensible Markup Language (XML)
- Simple Object Access Protocol (SOAP)
- Business Process Execution Language (BPEL)
- Web Services Description Language (WSDL)
- XML Schema Definitions (XSD)

Oracle Applications Cloud has these two types of web services:

- Application Development Framework (ADF) services
- Composite services

Let's look at the web service types in detail.

Web Service Type	Description
ADF services	ADF services usually represent business objects, such as employees or purchase orders. You can use these services to expose standard operations, such as create, update, and delete. However, for locally-persisted objects, ADF services aren't limited to these operations. Here are a few examples of ADF services and what they're used for: • **`Worker.changeHireDate`** - Use to update the hire date of the worker business object. • **`ProjectTask.createTask`** - Use to adds a task to the project task business object.
Composite services	Composite services usually represent end-to-end business process flows that act on business events produced by the ADF services. You can use these services to manage multiple object-based services, rules services, and human workflows. Here are a few examples of composite services and what they're used for: • **`ProjectStatusChangeApproval.process`** - Use to accept the change in project status. • ScheduleOrchestrationOrderFulfillmentLineService.scheduleOrders - Use to schedule resources used to fulfill an order.

For more information about web services, see the SOAP Web Services guide for your cloud services.

Developer Connect

Overview of Developer Connect

The Developer Connect portal provides information about the web services deployed to your Oracle Applications Cloud instance. You can use this information to integrate with or extend Oracle Applications Cloud and develop solutions to suit your business requirements.

To use the Developer Connect portal, your job role must have the `FND_INTEGRATION_SPECIALIST_JOB`, `FND_APPLICATION_DEVELOPER_JOB`, or `ZCA_CUSTOMER_RELATIONSHIP_MANAGEMENT_APPLICATION_ADMINISTRATOR_JOB` privilege. Alternately, you can grant the `ATK_WEB_SERVICE_INFO_ACCESS_PRIV` entitlement to your custom role, and then grant the custom role to users who require access. For more information, see the security guide for the appropriate cloud service at Oracle Help Center (https://docs.oracle.com).

To open the Developer Connect portal, from the **Navigator** menu, select **Tools** > **Developer Connect**. This portal displays dynamic information of the web services, and the modifications done to web services to integrate with Oracle Applications Cloud. You can synchronize the Developer Connect portal with your cloud instance to retrieve the latest web service information such as service attributes, operations, business objects, security policies, and WSDL files.

Use the Developer Connect portal to:

- View the summary of the web service information such as the business object that the service defines, life cycle status, and security policy.
- Discover the operations available for the selected web service, and the request and response payloads for each operation.
- View the hierarchy of the service data objects and know information such as the data type and whether it's a required field for user-defined attributes.
- Review the sample payload XMLs for the operations of the web service. You can add or edit sample payloads, and also delete user-defined sample payloads.

Related Topics

- Manage Web Service Sample Payloads
- Import Value Set Values to Oracle Applications Cloud

Web Service Life Cycle

A web service goes through three phases in a life cycle:

- Active: A service is active when it's delivered the first time, until it's deprecated.
- Deprecated: A service is deprecated when it's superseded by a newer version, or if there is a planned obsolescence in a future release. A service in this state is still supported and becomes obsolete in a later release.

  > **Note:** You must use the active version of the service. If you were previously using a service that has been deprecated, then migrate to the new, active version.

- Obsolete: A service is obsolete when it's no longer shipped or supported.

Related Topics

- Overview of Web Services
- Message Patterns

Message Patterns

All operations exposed on a business object service have both synchronous and asynchronous message patterns defined. For conciseness, the service documentation includes the definition for the synchronous message pattern only.

Both synchronous and asynchronous operations have the same functional behavior, and request and response payloads. Custom object services don't have corresponding asynchronous operations.

Naming Conventions and Examples

The naming convention for the asynchronous operation is:

- Operation name: Synchronous operation name appended with `Async`
- Callback name: Synchronous operation name appended with `AsyncResponse`

Using `Help Topic Abstract` Service as an example, if the name of the synchronous operation is `getEntityList`, the asynchronous operation name and callback name would be `getEntityListAsync` and `getEntityListAsyncResponse`.

Related Topics

- Web Service Life Cycle
- Overview of Developer Connect

Manage Web Service Sample Payloads

This example demonstrates how to add and edit a sample payload XML for a web service operation. It also describes how to delete a user-defined sample payload XML.

Adding a Sample Payload XML

Follow these steps to add a sample payload XML for the `getEntityList` operation of `Help Topic Abstract` Service:

1. From the **Navigator** menu, select **Tools** > **Developer Connect**.
2. On the **Web Service** overview page, search for `Help Topic Abstract` Service, and click the service display name.
3. On the **Summary** page, click the **Sample Payloads** tab, and then click **Add Sample Payload**.
4. Select `getEntityList` operation from the list, and enter a brief description.
5. Enter the payload XML, and click **OK**.

Editing a Sample Payload XML

The Developer Connect portal displays predefined and user-defined payloads of the web services. You can edit only the user-defined payloads. Follow these steps to edit a user-defined sample payload of the `getEntityList` operation of `Help Topic Abstract` Service:

1. On the **Web Service** overview page, select `Help Topic Abstract` Service.
2. On the **Summary** page of the web service, click the **Sample Payloads** tab and select `getEntityList` operation.
3. In the **Edit Sample Payload** dialog box, edit the payload XML and click **OK**.

Deleting a Sample Payload XML

You can delete only user-defined payloads, and not predefined payloads. Follow these steps to delete a user-defined sample payload of the `getEntityList` operation of `Help Topic Abstract` Service:

1. On the **Web Service** overview page, select `Help Topic Abstract` Service.
2. On the **Summary** page of the web service, click the **Sample Payloads** tab and select `getEntityList` operation.
3. Click the delete icon for the selected operation and click **OK**.

Related Topics

- Overview of Developer Connect
- Import Value Set Values to Oracle Applications Cloud

Import Value Set Values to Oracle Applications Cloud

This example demonstrates how to use the information in the Developer Connect portal to import value set values to Oracle Applications Cloud.

Suppose a fictional partner application wants to extend it with certain functionality available in another application. Instead of creating the required business objects and attributes in this application, you can import them using a web service. Before you proceed with the import process, enable the access permissions for the web service and review the information in the Developer Connect portal:

- Synchronize the web services information
- Review the web service details
- Update the request payload

Synchronizing Web Services Information

You must synchronize the Developer Connect portal with your Oracle Applications Cloud instance to get the latest web service information. Follow these steps:

1. From the Navigator menu, select **Tools** > **Developer Connect**.
2. Click **Synchronize**.

> **Note:** The **Last Refreshed** date indicates when the Developer Connect portal was last synchronized with your cloud instance.

Searching And Reviewing Web Service Information

On the Web Services overview page, you can enter Manage File Import and Export in the Find field. You can also use Advanced Search option to find web service names that contain import, and select the relevant service from the search results.

To review the information:

1. On the Web Services overview page, select Manage File Import and Export Service. The Summary panel shows information such as the display name, business object that the service defines, life cycle status, QName, security policy used, and a brief overview of the service.
2. Click the Operations tab to view the operations supported by the web service.
3. Click the `uploadFiletoUCM` operation and review the result parameter in the response payload. This parameter holds the file ID in the WebCenter Content repository from which the value set values are imported.

4. Click the `valueSetValuesDataLoader` operation and review the `fileIdAtRepository` parameter in the request payload. This parameter holds the file ID in the WebCenter Content repository.
5. Click **WSDL File** link of the service to download the web service information.

Updating Request Payload

To add a sample payload to import the value set values:

1. Click the Sample Payloads tab and then click **Add Sample Payload**.
2. Select `uploadFiletoUCM` from the operation name list.
3. Enter a brief description of the payload in the description text box.
4. Add the payload to get the file ID from the WebCenter Content repository:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
 <soap:Body>
 <ns1:uploadFiletoUCM
xmlns:ns1="http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/types/"
 ns2="http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

 <ns1:document xsi:type="ns2:DocumentDetails">
 <ns2:fileName>VS123.txt</ns2:fileName>
 <ns2:contentType>plain/text</ns2:contentType> <ns2:content>
VmFsdWVTZXRDb2RlfEluZGVwZW5kZW50VmFsdWV8SW5kZXBlbmRlbnRWYWx1ZU51bWJlcnxJbmRlcGVuZGVudFZhbHVl
RGF0ZXxJbmRlcGVuZGVudFZhbHVlVGltZXN0YW1wfFZhbHVlfFZhbHVlTnVtYmVyfFZhbHVlRGF0ZXxWYWx1ZVRpbWVz
dGFtcHxUcmFuc2xhdGVkVmFsdWV8RGVzY3JpcHRpb258W5hYmxlZEZsYWd8U3RhcnREYXRlQWN0aXZlfEVuZERhdGVB
Y3RpdmV8U29ydE9yZGVyfFN1bW1hcnlGbGFnfEZsZXhWYWx1ZUF0dHJpYnV0ZTF8RmxleFZhbHVlQXR0cmlidXRlMnxG
bGV4VmFsdWVBdHRyaWJ1dGUzfEZsZXhWYWx1ZUF0dHJpYnV0ZTR8RmxleFZhbHVlQXR0cmlidXRlNXxGbGV4VmFsdWVB
dHRyaWJ1dGU2fEZsZXhWYWx1ZUF0dHJpYnV0ZTd8RmxleFZhbHVlQXR0cmlidXRlOHxGbGV4VmFsdWVBdHRyaWJ1dGU5
fEZsZXhWYWx1ZUF0dHJpYnV0ZTEwfEZsZXhWYWx1ZUF0dHJpYnV0ZTExfEZsZXhWYWx1ZUF0dHJpYnV0ZTEyfEZsZXhW
YWx1ZUF0dHJpYnV0ZTEzfEZsZXhWYWx1ZUF0dHJpYnV0ZTE0fEZsZXhWYWx1ZUF0dHJpYnV0ZTE1fEZsZXhWYWx1ZUF0
dHJpYnV0ZTE2fEZsZXhWYWx1ZUF0dHJpYnV0ZTE3fEZsZXhWYWx1ZUF0dHJpYnV0ZTE4fEZsZXhWYWx1ZUF0dHJpYnV0
ZTE5fEZsZXhWYWx1ZUF0dHJpYnV0ZTIwfEN1c3RvbVZhbHVlQXR0cmlidXRlMXxDdXN0b21WYWx1ZUF0dHJpYnV0ZTJ8
Q3VzdG9tVmFsdWVBdHRyaWJ1dGUzfEN1c3RvbVZhbHVl QX R0cmlidXRlNH xDdXN0b21WYWx1ZUF0dHJpYnV0ZTV8Q
3VzdG9tVmFsdWVBdHRyaWJ1dGU2fEN1c3RvbVZhbHVlQXR0cmlidXRlN3xDdXN0b21WYWx1ZUF0dHJpYnV0ZTh8Q3Vzd
G9tVmFsdWVBdHRyaWJ1dGU5fEN1c3RvbVZhbHVlQXR0cmlidXRlMTAKUkVMN19CNl9WU19DSEFSX0lORF9URVhUX01MM
jB8fHx8fFRyZWVzV1N8fHx8FFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4NHxOfDIwMDAtMTAtMDF8MjAwMC0xMC0zMHwxf
Hx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8
FdTfHx8fHxUZXN0aW5nIGZvciBCdWcgMTczNzU2ODR8WXwyMDExLTEwLTAxfHwyfHx8fHx8fHx8fHx8fHx8fHx8fHx8f
Hx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
Hx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
m9yIEJ1ZyAxNzM3NTY4NCB1cGRhdGVkfE58MjAwMC0wMS0xMXwyMDAwLTAxLTIyfDF8fHx8fHx8fHx8fHx8fHx8fHx8f
Hx8fHx8fHx8fHx8ClJFTDdfQjZfVlNfQ0hBUl9ERVBfVEVYVF9NTDIwfEZsZXhXU3x8fHxERkZXU3x8fHx8VGVzdGluZ
yBmb3IgQnVnIDE3Mzc1Njg0fFl8MjAwMC0wMS0wMXwyMDAwLTAxLTMwfDJ8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
Hx8fHx8ClJFTDdfQjZfVlNfTlVNX0lORHx8fHx8MTAwMHwxMDAwfHx8fFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4NHxZf
Hx8MXx8fHx8fHx8fHx8fHx8fHx8fHx8f Hx 8fHx8fHx8fHw K UkVMN19CNl9WU19OVU1fSU5EfHx8fHwyMDAwfHx8f
HxUZXN0aW5nIGZvciBCdWcgMTczNzU2ODR8WXwyMDExLTEwLTAxfDIwMTItMTAtMzB8Mnx8fHx8fHx8fHx8fHx8fHx8f
Hx8fHx8fHx8fHx8fHwKUkVMN19CNl9WU19OVU1fREVQfDEwMDB8MTAwMHx8fDEwMDAwfDEwMDAwfHx8fFRlc3RpbmcgZ
m9yIEJ1ZyAxNzM3NTY4NHxZfHx8MXx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHwKUkVMN19CNl9WU19OVU1fR
EVQfDIwMDB8fHx8MjAwMDB8fHx8fFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4NHxZfDIwMTEtMTAtMDF8MjAxMi0xMS0zM
HwyfHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
FRyZWVzMVdTfHx8fFRyZWVzMSBUTFdTfFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4NHxOfDIwMTMtMTAtMTF8MjAxMy0xM
C0zMHwxfHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
Hx8fEF0dGFjaG1lbnQxV1N8fHx8QXR0YWNobWVudDEgVExXU3xUZXN0aW5nIGZvciBCdWcgMTczNzU2ODR8WXwyMDEzL
TEwLTAxfDIwMTMtMTAtMzB8Mnx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHwKUkVMN19CNl9WU19EQVRFX0lOR
Hx8fHx8MjAzMC0wMS0wMXx8MjAzMC0wMS0wMXx8fFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4NHxZfDIwMTEtMTAtMDF8M
jAxMi0xMC0zMHwxfHx8fHx 8f Hx8fHx8fHx8f H x8fHx8fHx8fHx8fHx8fHx8fApSRUw3X0I2X1ZTX0RBVEVfSU5EfHx8f
Hx8fDIwMzAtMDEtMDJ8fHxUZXN0aW5nIGZvciBCdWcgMTczNzU2ODQtMXxZfDIwMTEtMTAtMDV8MjAxMi0xMC0zMHwyf
Hx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
DEtMDF8fDIwMzAtMDEtMTF8fDIwMzAtMDEtMTF8fHxUZXN0aW5nIGZvciBCdWcgMTczNzU2ODR8WXwyMDExLTEwLTAxf
DIwMTItMTAtMzB8MXx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHwKUkVMN19CNl9WU19EQVRFX0RFUHwyMDMwL
TAxLTAxfHx8fDIwMzAtMDEtMjJ8fHx8fFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4NC0xfE58MjAxMS0xMC0wNXwyMDEyL
TEwLTMwfHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
zEtMDMtMDEgMDE6MDA6MDAuMDB8fHwyMDMxLTAzLTAxIDAxOjAwOjAwLjAwfHxUZXN0aW5nIGZvciBCdWcgMTczNzU2O
```

```
DR8WXwyMDExLTAxLTAxfDIwMTItMDEtMzB8MXx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHwKUkVMN19CNl9WU
19EQVRFVElNRV9JTkR8fHx8fDIwMzEtMDMtMDEgMDI6MDA6MDAuMDB8fHx8fFRlc3RpbmcgZm9yIEJ1ZyAxNzM3NTY4N
C0xfE58MjAxMS0xMC0wMnwyMDEyLTEwLTMwfDJ8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8ClJFTDdfQjZfV
lNfREFURVRJT UV fREVQfDIwMzE t MDMtMDEgMDE6MDA6MDAuMDB8fHwyMDMxLTAzLTAxIDAxOjAwOjAwLjAwfDIwM
zEtMDMtMDEgMDE6MDE6MDAuMDB8fHwyMDMxLTAzLTAxIDAxOjAxOjAwLjAwfHxUZXN0aW5nIGvciBCdWcgMTczNzU2O
DR8WXwyMDExLTAxLTAxfDIwMTItMDEtMzB8NHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHwKUkVMN19CNl9WU
19EQVRFVElNRV9ERVB8MjAzMS0wMy0wMSAwMTowMDowMC4wMHx8fHwyMDMxLTAzLTAxIDAxOjAyOjAwLjAwfHx8fHxUZ
XN0aW5nIGZvciBCdWcgMTczNzU2ODR8WXwyMDExLTAxLTAxfDIwMTItMDEtMzB8NHx8fHx8fHx8fHx8fHx8fHx8f
Hx8fHx8fHx8fHwK
 </ns1:content>
 <ns2:documentAccount>fin$/tax$/import$</ns2:documentAccount>
 <ns2:documentTitle>VS</ns2:documentTitle>
 </ns2:document>
 </ns1:uploadFiletoUCM>
 </soap:Body>
</soap:Envelope>
```

5. Click OK.
6. Select `valueSetValuesDataLoader` from the operation name list.
7. Enter a brief description of the payload in the description text box.
8. Add the payload to read the contents from the file and import the value set values:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
 <soap:Body>
 <ns1:valueSetValuesDataLoader
xmlns:ns1="http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/types/">
 <ns1:fileIdAtRepository>1234</ns1:fileIdAtRepository>
 </ns1:valueSetValuesDataLoader>
 </soap:Body>
</soap:Envelope>
```

Related Topics

- Overview of Developer Connect
- Manage Web Service Sample Payloads

Cross-Origin Resource Sharing

CORS

Cross-Origin Resource Sharing (CORS) is a mechanism that allows cross-domain communication and lets a browser securely access resources from a different domain.

By default, browser-based programming languages, such as JavaScript, can access resources only from the same domain. But with CORS, you can overcome this limitation and manage resources across domains.

Here are the CORS headers you can configure to make that possible.

CORS Header	Purpose
Access-Control-Allow-Origin	Contains a comma-separated list of trusted origins, or domains, that a client application can get resources from.
Access-Control-Max-Age	Specifies how long to store the results of a request in the preflight result cache.

CORS Header	Purpose
Access-Control-Allow-Methods	Contains a comma-separated list of HTTP methods allowed in a request.
Access-Control-Allow-Headers	Contains a comma-separated list of HTTP headers allowed in a request.
Access-Control-Allow-Credentials	Specifies whether a client application can send user credentials with a request.

Example

A client application retrieves resource X from server A, which is what the application runs on. The client application then makes an HTTP request to get resource Y from server B. For this cross-server request to work, you must configure the `Access-Control-Allow-Origin` header in server B. Otherwise, the request fails and we end up with an error message.

Related Topics

- Configure CORS Headers
- Set Profile Option Values

Configure CORS Headers

To enable CORS in Oracle Applications Cloud, configure CORS headers so that client applications in one domain can use HTTP requests to get resources from another domain. Set values for profile options that correspond to the CORS headers.

To view the profile option, go to the Setup and Maintenance work area and use the Manage Applications Core Administrator Profile Values task in the Application Extensions functional area.

CORS Profile Options

This table lists the profile options you can set for CORS headers.

CORS Header	Profile Option Name (Profile Option Code)	Profile Option Values
Access-Control-Allow-Origin	Allowed Origins for Cross-Origin Resource Sharing (ORA_CORS_ORIGINS)	These are the values you can enter to indicate which origins are allowed: • URL of the specific origin. For example, **http://www.exampledomain.com**. • Space-separated list of origins. For example, **http://www.exampledomain.com http://us.example.com http://software.example.com** **CAUTION:** Asterisk (*) is no longer supported as a valid value to allow access to resources from all origins. If you have already set asterisk (*) as the value for the allowed origins, make sure to replace it with the allowed origins.

CORS Header	Profile Option Name (Profile Option Code)	Profile Option Values
		Note: These are some key points to remember while using the profile values: • You must set a value for this header to enable CORS. • Never enclose URL and asterisk in quotation marks. • Domain names must contain only valid URL characters. • The profile value is applicable at the Site level.
Access-Control-Max-Age	CORS: Access-Control-Max-Age (CORS_ACCESS_CONTROL_MAX_AGE)	Default value for caching preflight request is 3600 seconds.
Access-Control-Allow-Methods	CORS: Access-Control-Allow-Methods (CORS_ACCESS_CONTROL_ALLOW_METHODS)	Default values for allowed methods are **OPTIONS**, **HEAD**, **GET**, **POST**, **PUT**, **PATCH**, and **DELETE**.
Access-Control-Allow-Headers	CORS: Access-Control-Allow-Headers (CORS_ACCESS_CONTROL_ALLOW_HEADERS)	Default values for allowed headers are **Accept**, **Accept-Encoding**, **Authorization**, **Cache-Control**, **Content-Encoding**, **Content-MD5**, **Content-Type**, **Effective-Of**, **If-Match**, **If-None-Match**, **Metadata-Context**, **Origin**, **Prefer**, **REST-Framework-Version**, **REST-Pretty-Print**, **Upsert-Mode**, **User-Agent**, **X-HTTP-Method-Override**, and **X-Requested-By**.
Access-Control-Allow-Credentials	CORS: Access-Control-Allow-Credentials (CORS_ACCESS_CONTROL_ALLOW_CREDENTIA	Select **True** or **False** to allow or prevent sending user credentials with the request. The default is False. **CAUTION:** Don't set the value to True without assessing the risk. The value shouldn't be set to True if the value for ORA_CORS_ORIGINS is set to asterisk (*). The Access-Control-Allow-Credentials header won't be set if ORA_CORS_ORIGINS value is *. Setting the value to True affects all the Fusion Applications REST endpoints.

Related Topics

- Set Profile Option Values
- CORS

11 File-Based Data Import (FBDI) and File Import and Export

File-Based Data Import (FBDI)

Overview of External Data Integration Services for Importing Data

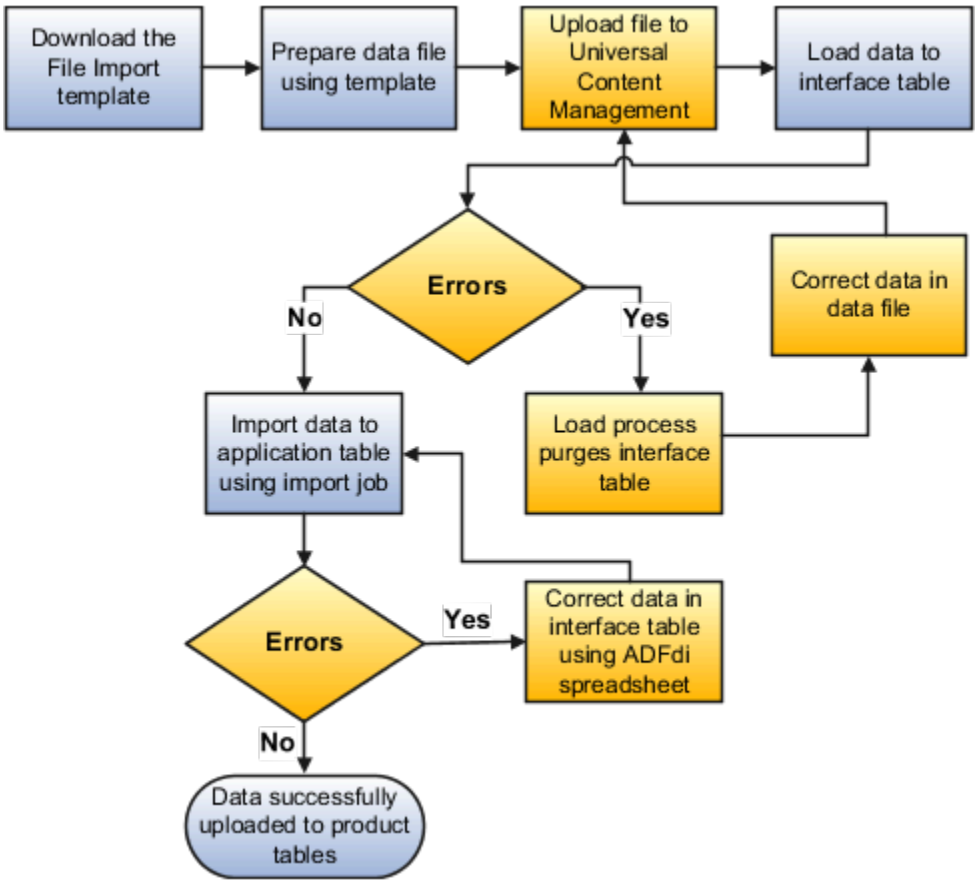
Use External Data Integration Services for Oracle Cloud to load data into the interface tables of Oracle Fusion Applications from external sources, such as legacy systems and third-party applications.

External Data Integration Services uses file-based data import (FBDI) templates and processes to import data.

The External Data Integration Services components consist of:

- Templates to structure, format, and generate the data file according to the requirements of the target application tables.
- File-based load process to load the data files into the interface tables.
- Application-specific data import processes to transfer data from interface tables to the application tables in your Oracle Fusion Applications.

The following flow diagram outlines the steps involved in loading data from external sources.



For further information, see Using External Data Integration Services for Oracle ERP Cloud (2102800.1) on My Oracle Support at **https://support.oracle.com**.

Related Topics

- Using External Data Integration Services for Oracle ERP Cloud

File Import Templates

The File Based Data Import guides in the Oracle Help Center (http://docs.oracle.com) include integration templates to help you prepare external data for loading and importing.

Each template includes table-specific instructions, guidelines, formatted spreadsheets, and best practices for preparing the data file for upload. Use the templates to ensure that your data conforms to the structure and format of the target application tables.

Preparing external data using templates involve the following tasks:

- Downloading templates
- Preparing data using the XLS template

Downloading Templates

To download the templates:

1. Open the File Based Data Import guide for your cloud service.
2. Locate the import process.
3. View the list of files.
    - Control files describe the logical flow of the data load process.
    - XLSM templates include the worksheets and macros for structuring, formatting, and generating your data file.
4. Click the template link in the File Links table to download the file. For example, click **JournalImportTemplate.xlsm** in the Journal Import topic.

Preparing Data Using the XLS Template

To prepare your data in a spreadsheet format:

1. Open the XLS template. The first worksheet in each file provides instructions for using the template.

    > **Note:** If you don't follow the instructions, you get data load errors and data import failures.

2. Save the file.
3. Click the **Generate CSV File** button.

    The macro generates a comma-separated values (CSV) file and compresses the file into a ZIP file. You must transfer the ZIP file to the content management server.

Related Topics

- Use Excel Integration Templates to Generate Data Files
- Document Transfer Utility

Use Excel Integration Templates to Generate Data Files

The File Based Data Import guides in the Oracle Help Center (http://docs.oracle.com) include integration templates to help you prepare external data for loading and importing.

Each template includes table-specific instructions, guidelines, formatted spreadsheets, and best practices for preparing the data file for upload. Use the templates to ensure that your data conforms to the structure and format of the target application tables.

Template Structure

The integration templates include the following characteristics:

- Each interface table is represented by a separate worksheet.
- Each interface table field is represented by a worksheet column with a header in the first row.
- Each column header contains bubble text or comments that include details about the column, such as the expected data type, length, and, in some cases, other instructional text.

- Columns are formatted, where applicable, to match the target field data type to eliminate data entry errors.

  The worksheet columns appear in the order that the control file processes the data file.

For more information on the template structure, see the Instructions and CSV Generation worksheet in the template.

Template Requirements

To minimize the risks of an unsuccessful data load, ensure the following:

- Unused columns can be hidden, but not reordered or deleted.

  > **CAUTION:** Deleting or reordering columns causes the load process to fail and results in an unsuccessful data load.

- External data must conform to the data type accepted by the control file and process for the associated database column.
- Date column values must appear in the YYYY/MM/DD format.
- Amount column values can't have separators other than a period (.) as the decimal separator.
- Negative values must be preceded by the minus (-) sign.
- Column values that require whole numbers include data validation to allow whole numbers only.
- For columns that require internal ID values, refer to the bubble text for additional guidance about finding these values.

After you finish preparing the data in the sheet, click the **Generate CSV File** button to generate a ZIP file containing one or more CSV files.

Related Topics

- File Import Templates
- Import Data into Application Tables

Transfer Data Files to UCM Using Manual Flow

After you generate the ZIP file that contains the CSV data import file, transfer the ZIP file to the content repository.

Use any of the following methods to transfer file:

- File Import and Export page in Oracle Fusion Applications: Manual flow
- Oracle Fusion ERP Integration web service: Automated flow

Aspects of transferring data files to content management involve the following:

- Target accounts
- Accessing transferred content

Predefined Target UCM Accounts

You can transfer data files to predefined accounts in the Universal Content Management server that correspond to the interface table or assets.

To find the UCM account:

1. Open the File Based Data Import guide for your cloud service.
2. Locate your respective import process. For example, **Journal Import**.
3. View the UCM account in the Details section.

For more information, see the following guides in the Oracle Help Center (**https://docs.oracle.com**):

- SOAP Web Services guide for your cloud services
- File Based Data Import guide for your cloud services

Related Topics

- Document Transfer Utility

Document Transfer Utility

The WebCenter Content Document Transfer Utility for Oracle Fusion Applications is a feature-set Java library that provides programmatic access to the content repository.

Use the utility to import and export documents, such as import files that contain external data that you want to load into interface and application tables.

The library includes:

- Oracle WebCenter Content client command line tool
- Oracle WebCenter Content remote intradoc client (RIDC)
- Oracle HTTPClient
- Oracle Fusion Applications branding and defaults

Options for the WebCenter Content Document Transfer Utility for Oracle Fusion Applications fall into these categories:

- DownloadTool program options
- UploadTool program options
- Debugging and silent invocation options

DownloadTool Program Options

This table describes the download tool program options:

Option	Description
`url`	Protocol-specific connection URL of content server
`user name`	User name to leverage
`password`	Password, supplied in command line
`passwordFile`	Password, supplied in text file on the first line of the file

Option	Description
`dID`	ID of document revision to download dID is unique across repository dID changes with each revision **Note:** Alternatively, specify the `dDocName` and `RevisionSelectionMethod` to identify the `dID` to leverage.
`dDocName`	Content name Multiple revisions of a document can share the same `dDocName` value, otherwise it is unique. **Note:** You should also provide `RevisionSelectionMethod` value.
`RevisionSelectionMethod`	Revision to download Valid values: `Latest`, `LatestReleased` Default value: `Latest`
`outputFile`	Path and name of local file to write

Here you see a sample download invocation command:

```
java -classpath "oracle.ucm.fa_client_11.1.1.jar" oracle.ucm.client.DownloadTool
url=http://ucmserver.com:16200/cs/idcplg username=weblogic password=welcom3i
dID=21537 outputFile="/tmp/output.doc"
```

Here you see sample output:

```
Oracle WebCenter Content Document Transfer Utility
Oracle Fusion Applications
Copyright (c) 2013, Oracle. All rights reserved.
Performing download (GET_FILE) ...
Download successful.
```

UploadTool Program Options

This table describes the upload tool program options:

Option	Description
`url`	Protocol-specific connection URL of content server
`username`	User name to leverage

Option	Description
`password`	Password, supplied in command-line
`passwordFile`	Password, supplied in text file on the first line of the file
`primaryFile`	Fully-qualified path of local primary file to upload
`dDocAccount`	Destination account
`dDocTitle`	Document title
`checkout`	If uploading a document revision, check out the document from the repository before uploading the revision Valid values: `true`, `false` Default value: `false`
`ignoreCheckoutErrorNeg22`	Ignore error -22 (user has already checked-out the document) when checking-out the document. Valid values: `true`, `false` Default value: `true`

Here you see a sample upload invocation command:

```
java -classpath "oracle.ucm.fa_client_11.1.1.jar" oracle.ucm.client.UploadTool
url=http://ucmserver.com:16200/cs/idcplg username=weblogic password=welcom3i
primaryFile="/tmp/resume.doc" dDocTitle="Resume of MSMITH" -dDocAccount=/acme/sales
```

Here you see sample output:

```
Oracle WebCenter Content Document Transfer Utility
Oracle Fusion Applications
Copyright (c) 2013, Oracle. All rights reserved.
Performing upload (CHECKIN_UNIVERSAL) ...
Upload successful.
[dID=21537 | dDocName=UCMFA021487]
```

Debugging and Silent Invocation Options

This table describes the usable options which are common to all tools.

Option	Description
`verbose`	Verbose output Log filled with Request/Response DataBinders
`quiet`	Minimal output

Option	Description
`version`	Print tool revision or version
`log_file_name`	Send program output to specified log file instead of the System.out log file
`log_file_append`	Append log to existing log file rather than overwrite it Valid values: `true`, `false` Default value: `false`
`socketTimeout`	Override time out of socket Specify override time in seconds

You can use the tools to test the connection. Provide only the url, user name, and password as you see in this sample test:

```
java -classpath "oracle.ucm.fa_client_11.1.1.jar" oracle.ucm.client.DownloadTool
url=http://ucmserver.com:16200/cs/idcplg username=weblogic password=welcom3i
```

Here you see the sample output:

```
Oracle WebCenter Content Document Transfer Utility
Oracle Fusion Applications
Copyright (c) 2013, Oracle. All rights reserved.
Performing connection test (PING_SERVER) ...
Connection test successful.
```

Related Topics

- Overview of External Data Integration Services for Importing Data
- Use Excel Integration Templates to Generate Data Files
- Transfer Data Files to UCM Using Manual Flow

Load Interface File for Import Process

Use the Load Interface File for Import scheduled process when you need to import external setup or transaction data from your CSV files into the interface tables. The process prepares the data for import into application tables.

Run this process from the Scheduled Processes page. You can run it on a recurring basis.

When to Use

Use this scheduled process when you load data from the CSV files into the interface table that corresponds to the template that you use to prepare the data.

Before running this process, you must complete these steps:

1. Prepare your data file. For details, see *File Import Templates*.

2. Create the import file. For details, see *Use Excel Integration Templates to Generate Data Files*.
3. Transfer the data file to the content repository. For details, see *Transfer Data Files to UCM Using Manual Flow*.

Privileges Required

Privileges are granted to duty roles, which are granted to job roles. To see which job roles inherit the required privileges, use the Security Console or see *Security Reference for Financials* and *Security Reference for Common Features*.

Specifications

Use these specifications when you run the scheduled process.

Specification	Description
Job Type	We recommend that you use Scheduled, but you can also run it on demand, when needed.
Frequency	There are no constraints.
Time of Day	Run it when your system isn't processing a lot of transactions.
Duration	Not applicable.
Compatibility	None.

Parameters

The Import Process parameter and the Data File parameter are required. Set the parameters, as necessary.

Parameter	Description
Import Process	Select the target import process.
Data File	Do these steps. 1. Click the **down arrow** in the Data File attribute. 2. Scroll down, then click **Upload a New File**. 3. In the Upload File dialog, click **Select File**. 4. In your Windows Explorer window, locate and select the .zip file that you created when you used the Price List Import Template, then click **Open**. 5. In the Upload file dialog, click **OK**. 6. In the Process Details dialog, make sure the Data File attribute displays the name of the .zip before you continue.

Troubleshooting Information

See:

- *Correct Import Load Process Errors*

Related Topics

- File Import Templates
- Use Excel Integration Templates to Generate Data Files
- Transfer Data Files to UCM Using Manual Flow
- Correct Import Load Process Errors
- Document Transfer Utility
- Import Data into Application Tables

Import Data into Application Tables

The final destination for your external data is the application data tables of your Oracle Fusion application.

Importing data into application tables involves the following:

- Loading data into interface tables
- Finding and submitting the import process

Loading Data into Interface Tables

Interface tables are intermediary tables that store your data temporarily while the application validates format and structure. Run the Load Interface File for Import scheduled process to load data from the data file into the interface table that corresponds to the template that you use to prepare the data.

To load your data into interface tables, submit the Load Interface File for Import scheduled process using the following steps:

1. From the Navigator, click **Tools**.
2. Click **Scheduled Processes**.
3. Click the **Schedule New Process** button.
4. Search and select the Load Interface File for Import job.
5. On the Process Details page:
    a. Select the target import process.
    b. Enter the data file name.
6. Submit the process.

If the process is successful, the status is SUCCEEDED and the process populates the interface tables. If the process isn't successful, the status is ERROR.

Note: The data file remains in the content repository after the process ends.

Finding and Submitting the Import Process

Run the appropriate import process to import the data into the interface tables of your Oracle Fusion application.

To import your data into the application tables:

1. From the Navigator, click **Tools**.

2. Click **Scheduled Processes**.
3. Click the **Schedule New Process** button.
4. Search and select the import process for the target application tables.
5. On the Process Details page, select the process that corresponds to the data that you're importing. For example, **Journal Import**.

   If you prepared your data using the spreadsheet template, select the process shown in the Overview section of the spreadsheet.
6. Submit the process.

If the process is successful, the status is SUCCEEDED. The data in the interface tables is validated and the successful records are imported into the Oracle Fusion application tables. If the process isn't successful, the status is ERROR.

> **Note:** For more information on the process used for data prepared using the spreadsheet template, see the *Instructions and CSV Generation* tab of the spreadsheet template.

Related Topics

- Document Transfer Utility
- Use Excel Integration Templates to Generate Data Files
- Correct Import Load Process Errors

Correct Import Load Process Errors

The Load Interface File for Import process ends in error if the load of the data file fails on any row. The Load File to Interface child process ends as an error or warning.

All rows that were loaded by the process are deleted and the entire batch of records is rejected.

Correcting Data Upload Errors

To correct errors:

1. Review the error logs.
2. Change any structural or formatting anomalies in the data.
3. Generate the ZIP file containing the CSV files using the template.
4. Upload the file to the UCM server and resubmit the Load Interface File for Import process.
5. Repeat these steps until the process successfully loads all the data.

Correcting Import Process Errors

If the import process fails with errors:

1. Review the errors in the import log.
2. Correct the error records using the ADFdi correction spreadsheets.

Related Topics

- Import Data into Application Tables
- Load Interface File for Import Process

Deep Links

You can use deep links to open pages without using menus or navigating through pages. Deep links come in handy if you want users to go directly from various locations to Oracle Applications Cloud.

You can add deep links to a business intelligence report, an email notification, or a company website hosted on Oracle Cloud. For example, you can enable direct navigation to the My Team page. If users click your deep link URL from the company website, but aren't yet signed in to Oracle Applications Cloud, they're automatically redirected to the Sign In page. To see a complete list of the available deep links, use the Deep Links work area (**Navigator** > **Tools** > **Deep Links**). For access to this work area, you need to have the View Administration Link (FND_VIEW_ADMIN_LINK_PRIV) privilege.

How It Works

You can copy a URL from the Deep Links page and use it to create a link, for example on your company website. You can use deep links as is, to take users to a high level page, for example an overview or search page. Or, you can edit the URL so that it opens a page where the user can take action, for example to create something. For more information, refer to your product-specific documents.

URL Pattern of Deep Links

Here's a typical URL pattern of a deep link.

```
https://<pod-name>/fndSetup/faces/deeplink?
objType=<objID>&objKey=<name1=value1;name2=value2>&action=<action>&returnApp=<returnappURL>&returnAppParams=<returnAppPa
```

To direct users to a product-specific action page, you need to add specific parameters to the deep link URL. This table describes the parameters and gives you some examples of parameter values.

Parameter	Description	Example of Parameter Values
`pod-name`	The host name.	`pod.oraclecloud.com`
`objType`	The object type, such as work areas.	`SUPPLIER`
`objKey`	The object identifier.	`SupplierNumber`

`action`	The action that users can do on the page that the URL opens up, for example to edit something.
	
	Here are a few things to know:
	
	• If you don't add any value for the action parameter, this value is considered as `NONE` by default. So users will be taken to a high-level page, such as an overview page or a search page.
	• If the value you added for the action parameter doesn't match with any action on the UI, or the user doesn't have the
		`NONE`
		
		`VIEW`
		
		`CREATE`
		
		`EDIT`

Parameter	Description	Example of Parameter Values
	privileges to access that action, they will be taken to a high-level page.	
`returnAppURL`	The application URL where users will be automatically redirected to when they try to return to the previous page, or after they complete their task. If you're using a third party URL, make sure the application name is registered using the Manage Integration of Additional Applications page in the Setup and Maintenance work area.	MyOracle
`returnAppParams`	Parameters for the return application URL.	type=photo

Where to Find Information About Product-Specific Deep Links

Here's some information about specific deep links depending on the products you're using. This isn't a comprehensive list of all available deep links.

- Oracle Fusion Cloud Supply Chain & Manufacturing

  See: *Deep Links for SCM*
- Oracle Fusion Cloud Procurement

  See: *Deep Links for Procurement*
- Oracle Fusion Cloud Succession Planning

  See: *Overview of Succession Plan Deep Links*
- Oracle Fusion Cloud Financial Reporting Compliance

  See: *Deep-Link URLs*

Related Topics

- Manage Integration of Additional Applications

File Import and Export

Overview of Files for Import and Export

You can import data into or export data out of the applications. A repository stores the content and the import and export processes handle the data movement into and out of the repository.

Integration specialists stage data for import and export. Application administrators run processes to import data in repositories of content to application transaction tables, or retrieve data exported from applications.

Aspects of managing files for import and export involve the following:

- Using the File Import and Export page
- Interacting with content management
- Uploading to facilitate import
- Downloading to facilitate export
- Determining the file size

The File Import and Export Page

Use the File Import and Export page to upload content to or download content from the document repository of Oracle WebCenter Content. Search criteria on the page are limited to the minimum metadata of content management records needed for file import and export. To open the page, from the **Navigator** in the global header, select **Tools** > **File Import and Export**.

Contact the WebCenter Content Administrator for the following additional requirements:

- Information or assistance regarding general access to content management (including all metadata)
- Creating and managing accounts
- Programmatically uploading and downloading content

Interacting with Content Management

Each user with access to the File Import and Export page is assigned to one or more accounts in Oracle WebCenter Content. Accounts organize and secure access to the content items.

Uploading to Facilitate Import

Uploading a file creates a record in Oracle WebCenter Content. When you upload a file, you must also specify an account to which you upload the file. The account you specify determines which import process picks up that file to import it. You can upload any compatible file format, such as MIME, which the content repository can parse. However, the uploaded format must conform to the requirements of the import process. For example, the comma-separated values (CSV) file for the Load Interface File for Import process.

1. Click **Navigator** > **Tools** > **File Import and Export**.
2. In the Search Results section, click **Actions** > **Upload**.
3. On the Upload File window, click **Browse** and select the file to be uploaded.
4. From the Account list, select the account with which you want to associate the file.
5. Click **Save and Close**.

The details of the uploaded file appear in the Search Results section. Each uploaded file is assigned a unique Content ID.

Downloading to Facilitate Export

Records in the search results table of the File Import and Export page provide download links to the files.

File Size

Upload and download don't apply the following by default:

- Data compression

- File splitting

The `UPLOAD_MAX_DISK_SPACE` parameter in the `web.xml` file determines the maximum allowable file size in content management. The default maximum size is 10240000 (10 MB).

Related Topics

- Overview of External Data Integration Services for Importing Data
- Guidelines for File Import and Export
- Import Data into Application Tables

Guidelines for File Import and Export

Interaction between the File Import and Export page and Oracle WebCenter Content requires securing content in an account. You can use the predefined accounts that are available in Oracle WebCenter Content.

Areas of file import and export involve the following:

- Defining security
- Searching records
- Accessing content in a new account
- Naming the account
- Deleting files

Defining Security

You require the File Import and Export Management duty role for accessing the File Import and Export page. This duty role is included in the predefined role hierarchy for integration specialist roles and product family administrator roles. Files in Oracle WebCenter Content are associated with an account so that only users having access to that account can work with those files. Account names are unique and each account is treated as discrete by access control. You can only upload and download files to and from content repositories that are linked to the accounts you can access. The underlying integrated content management handles security tasks such as virus scanning.

Searching Records

A record in Oracle WebCenter Content contains the metadata used for accessing the file. When a scheduled process is run on a file, the record for the file is assigned a process ID.

Accessing Content in a New Account

After you create a new account in Oracle WebCenter Content, restart the content server. Otherwise, when you use the File Import and Export page to access content in the new account, you may experience a delay. The policy store is being updated with the new account information, which causes the delay.

Naming the Account

If you create accounts for importing or exporting data, use the following conventions for naming the account:

- Don't include a slash (/) at the beginning or end.
- End the name with a dollar sign ($) to avoid partial string matching.

- Use dollar sign and slash ($/) as a separator in the hierarchical structure.

For example: `fin$/journal$/import$` The File Import and Export page transforms account names by removing the dollar sign ($) separators. For example `fin$/journal$/import$` appears as `fin/journal/import`. The Remote Intradoc Client (RIDC) HTTP command-line interface (CLI) transforms the account name you specify without the dollar sign ($) to one that includes the sign. For example, fin/journal/import becomes `fin$/journal$/import$` in WebCenter Content.

Deleting Files

You can delete one file at a time when you use the File Import and Export page. To delete multiple files simultaneously from the content repository, use the standard service page in Oracle WebCenter Content.

Related Topics

- Import Data into Application Tables
- Overview of Files for Import and Export
- Document Transfer Utility

12 Migration of Common Reference Objects

Overview of Moving Common Reference Objects

The common reference objects are used by several setup tasks in the Setup and Maintenance work area. The common reference objects become a part of the configuration package that's created for an implementation project.

While moving the application content, for example, moving from test to the production phase of an implementation, attend to the nuances of these common reference objects.

Parameters

The common reference objects are represented as business objects. A single object can be referenced in multiple setup tasks with different parameters. In the configuration package created for the implementation project, parameters passed to a setup task are also passed to the business objects being moved. As a result, the scope of the setup tasks is maintained intact during the movement.

Dependencies

Common reference objects may have internal references or dependencies among other common reference objects. Therefore, you must note all the dependencies before moving the objects so that there are no broken references among them.

Related Topics

- Guidelines for Moving Related Common Reference Objects
- Business Objects for Moving Common Reference Objects
- Overview of Setup Data Export and Import
- Setup Data Export and Import Using an Offering or a Functional Area

Business Objects for Moving Common Reference Objects

Common reference objects in Oracle Fusion Functional Setup Manager are used to move application setup content from one environment to another. For example, from a test environment to a production environment.

Choice of Parameters

The following table lists the business objects, the movement details, and the effect of the setup task parameter on the scope of the movement.

Note:

- You can move only the translations in the current user language.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Message	Messages and associated tokens	No parameters: All messages are moved. Parameter **moduleType/moduleKey**: Only messages belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **messageName/applicationId**: Only the specified message is moved.
Application Taxonomy	Application taxonomy modules and components	No parameters: All taxonomy modules and components are moved.
Application Attachment Entity	Attachment entities	No parameters: All attachment entities are moved. Parameter **moduleType/moduleKey**: Only attachment entities belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.
Application Attachment Category	Attachment categories and category-to-entity mappings	No parameters: All attachment categories and category-to-entity mappings are moved. Parameter **moduleType/moduleKey**: Only attachment categories belonging to the specified module and its descendant modules in the taxonomy hierarchy along with the respective category-to-entity mappings are moved.
Application Document Sequence Category	Document sequence categories	No parameters: All categories are moved. Parameter **moduleType/moduleKey**: Only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **code/applicationId**: Only the specified document sequence category code is moved.
Application Document Sequence	Document sequences and their assignments	No parameters: All sequences are moved. Parameter **moduleType/moduleKey**: Only document sequences belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved Parameter **name**: Only the specified document sequence is moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Descriptive Flexfield	Descriptive flexfield registration data and setup data	No parameters: All descriptive flexfields are moved. Parameter **moduleType/moduleKey**: Only descriptive flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **descriptiveFlexfieldCode/applicationId**: Only the specified descriptive flexfield is moved. Importing the metadata of a flexfield can change its deployment status. Therefore, you must redeploy if there are any affected flexfields. The import process automatically submits affected flexfields for redeployment. Also, only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved. **Note:** Sometimes, the flexfield setup data exported to an XML file may contain noneditable auto-generated content that might not exist when exported to a CSV file. You may ignore and exclude such data during the export-import process.
Application Extensible Flexfield	Extensible flexfield registration data and setup data, including categories	No parameters: All extensible flexfields are moved Parameter **moduleType/moduleKey**: Only extensible flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **extensibleFlexfieldCode/applicationId**: Only the specified extensible flexfield is moved. Importing the metadata of a flexfield can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment. Also, only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved. **Note:** Sometimes, the flexfield setup data exported to an XML file may contain noneditable auto-generated content that might not exist when exported to a CSV file. You may ignore and exclude such data during the export-import process.
Application Key Flexfield	Key flexfield registration data and setup data	No parameters: All key flexfields are moved. Parameter **moduleType/moduleKey**: Only key flexfields belonging to the specified module

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		and its descendant modules in the taxonomy hierarchy are moved. Parameter **`keyFlexfieldCode/applicationId`**: Only the specified key flexfield is moved. Importing the metadata of a flexfield can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment. Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved. **Note:** Sometimes, the flexfield setup data exported to an XML file may contain noneditable auto-generated content that might not exist when exported to a CSV file. You may ignore and exclude such data during the export-import process.
Application Flexfield Value Set	Value set setup data	No parameters: All value sets are moved. Parameter **`moduleType/moduleKey`**: Only value sets belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **`valueSetCode`**: Only the specified value set is moved. Importing the metadata of a value set can change the deployment status of flexfields that use the value set. Therefore, you must redeploy if there are any affected flexfields. The import process automatically submits affected flexfields for redeployment.
Application Reference Currency	Currency data	No parameters: All currencies are moved.
Application Reference ISO Language	ISO language data	No parameters: All ISO languages are moved.
Application Reference Industry	Industry data including industries in territories data	No parameters: All industries are moved.
Application Reference Language	Language data	No parameters: All languages are moved.
Application Reference Natural Language	Natural language data	No parameters: All natural languages are moved.
Application Reference Territory	Territory data	No parameters: All territories are moved.
Application Reference Time zone	Time zone data	No parameters: All time zones are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Standard Lookup	Standard lookup types and their lookup codes	No parameters: All standard lookups are moved. Parameter **moduleType/moduleKey**: Only standard lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **lookupType**: Only the specified common lookup is moved.
Application Common Lookup	Common lookup types and their lookup codes	No parameters: All common lookups are moved. Parameter **moduleType/moduleKey**: Only common lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **lookupType**: Only the specified common lookup is moved.
Application Set-Enabled Lookup	Set-enabled lookup types and their lookup codes	No parameters: All set-enabled lookups are moved. Parameter **moduleType/moduleKey**: Only set-enabled lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **lookupType**: Only the specified set-enabled lookup is moved.
Application Profile Category	Profile categories	No parameters: All profile categories are moved. Parameter **moduleType/moduleKey**: Only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. **name/applicationId**: Only the specified category is moved.
Application Profile Option	Profile options and their values	No parameters: All profile options and their values are moved. Parameter **moduleType/moduleKey**: Only profile options and their values belonging to the specified module are moved. Parameter **profileOptionName**: Only the specified profile option and its values are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Profile Value	Profile options and their values	No parameters: All profiles and their values are moved. Parameter **moduleType/moduleKey**: Only profiles and their values belonging to the specified module are moved. Parameter **categoryName/ categoryApplicationId**: Only profiles and their values belonging to the specified category are moved. Parameter **profileOptionName**: Only the specified profile and its values are moved.
Application Reference Data Set	Reference data sets	No parameters: All sets are moved.
Application Reference Data Set Assignment	Reference data set assignments	Parameter **determinantType**: Only assignments for the specified determinant type are moved. Parameter **determinantType/ referenceGroupName**: Only assignments for the specified determinant type and reference group are moved.
Application Tree Structure	Tree structures and any labels assigned to the tree structure	No parameters: All tree structures (and their labels) are moved. Parameter **moduleType/moduleKey**: Only tree structures (and their labels) belonging to the specified module are moved. Parameter **treeStructureCode**: Only the specified tree structure (with its labels) is moved.
Application Tree	Tree codes and versions	No parameters: All trees are moved. Parameter **moduleType/moduleKey**: Only trees belonging to the specified module are moved. Parameter **treeStructureCode**: Only trees belonging to the specified tree structure are moved. Parameter **TreeStructureCode/TreeCode**: Only trees belonging to the specified tree structure and tree code are moved.
Application Tree Label	Tree structures and any labels assigned to the tree structure	No parameters: All tree structures (and their labels) are moved. Parameter **moduleType/moduleKey**: Only tree structures (and their labels) belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		Parameter **`treeStructureCode`**: Only the specified tree structure (with its labels) is moved.
Application Data Security Policy	Database resources, actions, conditions, and data security policies	No parameters: All database resources/actions/conditions/policies are moved. Parameter **`moduleType/moduleKey`**: Only database resources/actions/conditions/policies belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter **`objName`**: Only the specified database resource along with its actions/conditions/policies is moved. If the policies being moved contain reference to newly created roles, move the roles before moving the policies. If the source and target systems use different LDAPs, manually perform the GUID reconciliation after moving the data security policies.

Related Topics

- Guidelines for Moving Related Common Reference Objects

Guidelines for Moving Related Common Reference Objects

Certain common reference objects may use other common reference objects creating dependencies among the objects. During the movement of common reference objects, ensure that these dependencies or references aren't broken or lost.

Dependencies

The dependencies among the common reference objects may be caused by any of the following conditions.

- Flexfield segments use value sets
- Value sets may make use of standard, common, or set-enabled lookups
- Key flexfields may have an associated tree structure and key flexfield segments may have an associated tree code
- Tree codes and versions may be defined over values of a value set
- Data security policies may be defined for value sets that have been enabled for data security

You may decide to move one, some, or all of the business objects by including the ones you want to move in your configuration package. For example, you may decide to move only value sets, or move both value sets and their lookups

as part of the same package. Whatever be the combination, Oracle recommends that during the movement of objects, you follow an order that maintains the dependencies among the objects.

While moving the business objects, adhere to the following order:

1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, messages, and so on.
2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.

Note: In scenarios where there may be dependencies on other objects, you must move the dependencies before moving the referencing object. For example, if data security policies have dependencies on newly created security roles, you must move the security roles before moving the security policies.

Related Topics

- Business Objects for Moving Common Reference Objects

Guidelines for Moving Common Reference Objects Using the Seed Data Framework

To move the common reference objects, you can use the Seed Data Framework. You can also use the command line interface of the Seed Data Framework to move the object setup data.

Movement Dependencies

The seed data interface moves only the setup metadata. For example, if you use Seed Data Framework to import flexfield metadata, the flexfield setup metadata is imported into your database. However, you must initiate the flexfield deployment process separately after seed data import to regenerate the runtime flexfield artifacts in the target environment. Similarly, if you use Seed Data Framework to import data security metadata, you must first move any new referenced roles and then manually run the GUID reconciliation where required.

To ensure that the reference data isn't lost during the movement, certain guidelines are prescribed. It's recommended that you perform the movement of object data exactly in the following order:

Note: Only the translation in the current user language is moved.

1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, attachments, reference data sets, document sequences, messages, and data security.

2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.
8. Move created reference data sets before moving any objects that reference them, such as reference data set assignments and set-enabled lookups.
9. Move created document sequence categories before moving any objects that reference them, such as document sequences.
10. Move created tree labels before moving any objects that reference them, such as trees.
11. Move created data security objects and policies before moving any objects that reference them, such as value sets.
12. Move created value sets before moving any objects that reference them, such as flexfields.
13. Move created trees before moving any objects that reference them, such as key flexfields.

13 Campus Community

Overview of Campus Community Implementation

Oracle Campus Community includes everything that's shared among different Student Management product areas, which includes common setups for implementing Student Management. Examples of common setups are attribute tags, service impacts, and service indicators.

Users with the Application Implementation Consultant job role can implement Campus Community. This topic provides an overview of the individual setup tasks for Campus Community implementation. Alternatively, you can complete a few of the tasks using the Rapid Implementation process.

Here are the Campus Community setup tasks. The tasks don't have a specific order.

Page or Task Name	Navigation	Description
Manage Service Impacts	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Service impacts identify the types of specific services that are restricted or provided. Examples of service impacts can include transcript holds, stopping course enrollment, and allowing use of the gym.
Manage Administrative Service Indicators	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Service indicators consist of one or more service impact values. Examples of service indicators can include library fine, nonpayment of tuition fee, and early enrollment.
Identifiers	From Student Central, click **Search** and search for **Student Management Identifiers**.	Create and maintain identifiers to represent ID numbers and codes issued by national and local regulatory bodies, accreditation, and other professional organizations. Assign identifiers to entities such as institutions and external organizations.
Contacts	From Student Central, click **Search** and search for **Contacts**.	Create and maintain person contact details such as default job title and department. Assign contacts to entities such as institutions and external organizations.
Locations	From Student Central, click **Search** and search for **Locations**.	Create and maintain locations. Assign locations to entities such as institutions and external organizations.
Manage Attribute Tags	From Student Central, click **Search** and search for **Tags**.	Create and maintain general or service hold tags. Examples of tags can be military, athlete, and library service hold.
Manage Population Selection Process Contexts	In the Setup and Maintenance work area, use:	Population Selection returns a list of persons and their related data, which batch processes can use for further processing. An example of

Page or Task Name	Navigation	Description
	• Offering: Student Management • Functional Area: Student Structures	batch processing with Population Selection is enrollment for multiple students.
Manage Student Management Lookups	From Student Central, click **Search** and search for **Manage Student Management Lookups**.	Set up lookups, for example, residency lookups include residency statuses, exceptions, and exception reasons.
Manage Address Formats	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Modify the layout of fields in the student address page. For example, you can set fields as required or modify the field labels.
Manage National Identifier Types	From Student Central, click **Search** and search for **National Identifier Type**.	Configure types of national identifiers.
Student Management Categories	From Student Central, click **Search** and search for **Student Management Categories**.	Create categories to associate with academic tools such as communications.
Communications	From Student Central, click **Search** and search for **Communications**.	Configure the notification content that the cloud application automatically sends to students. For example, the notification that's sent to a student, when the student enrolls for a course.
Status Schemes	From Student Central, click **Search** and search for **Status Schemes**.	Set up status schemes to create groups of statuses for use within tasks.
Task Management	From Student Central, click **Search** and search for **Task Management**.	Set up tasks and checklists for applicants and students, such as submitting a recommendation letter.
Branding	From Student Central, click **Search** and search for **Specify Branding and Colors**.	For the Student Management pages, add a logo of the academic institution and select a branding color.
Manage Administrator Profile Values	In the Setup and Maintenance work area, go to the Manage Administrator Profile Values task.	Set up the locale preferences, such as date and time formats, for students and applicants.
Manage Time Zone Settings	From Student Central, click **Search** and search for **Manage Time Zone Settings**.	Set up multiple global time zones for your institution.
Age Settings	From Student Central, click **Search** and search for **Age Settings**.	Configure age limits to identify a person as fully managed, jointly managed, or self-managed.
Configure Person Relationship Type	From Student Central, click **Search** and search for **Configure Person Relationship Type**.	Determine the relationships that users can establish between students and group managers in a managed student group.
Create External Organizations in Spreadsheet Upload External Organizations in Spreadsheet	In the Setup and Maintenance work area, use:	Create organizations that are external for your academic institution, such as high schools,

Page or Task Name	Navigation	Description
	• Offering: Student Management • Functional Area: Academic Structures	universities, sponsorship organizations, and so on.

Related Topics

- Overview of Rapid Implementation for Oracle Student Management Cloud

Student Central Landing Pages

Configure the Student Central landing pages to provide a personalized experience for each user.

Each role has its own Student Central landing page. The page is composed of widgets designed to anticipate what the user needs and deliver just-in-time tasks and status information. Institutions can configure the page designs and the widget behavior.

A Student Central landing page is composed of page elements called widgets. Let's look at the widgets.

To-dos: Provides a list of urgent tasks and a quick and easy way to complete them.

- Tasks assigned to the user appear here.
- Tasks display in order of latest due date.
- Click a task card to activate the slide up view where the user can complete the task.
- When a task is marked complete, it no longer displays in the widget.
- A quick link to the student's task and checklist page is available on the last task card in the widget.

Academics: Displays calls to action about a student's course schedule. A student can view prompts and follow links to complete their course scheduling and enrollment activities.

Finances: Displays status and call to action for a student's finances.

- Provides a summary of a student's financial standing.
- A **Pay Now** button displays when there's a balance that must be paid.
- Configure widget to show **Total Balance** or **Next Due Amount**.
- A quick link to the student's finances page is available in the widget.

Applications: Displays status and call to action for an applicant's program applications.

- Displays a list of all admissions applications.
- Displays the status of each application.
- The **Continue** button takes the applicant to their in-progress application in one click.

Helpful Links: Provides a list of helpful links defined by the administrator.

- An administrator can add links to any destination.
- An administrator can organize links into categories.
- The widget title can be configured.
- Clicking on a link opens a new tab with the destination.

Now let's look at configuration. Only higher education application administrators can configure Student Central landing pages and widgets.

Assign Role Permission to Widgets

Widget permission settings depend on the type of role:

- Predefined roles have predefined access to Student Central and to widgets that are appropriate for the role.
- User-defined roles must be granted access to Student Central and to the widgets that display on their landing page.

Use the Manage Application Access task to view or configure widget access by role:

1. Search for **Application Access**. Or, click **Assign Roles** from the Details tab for a widget or the Design tab in the Student Central Configurations page.
2. Select the **User Experience** functional area.
3. In the **Student Central** row, click the ellipses and click **Assign Page Access to Roles**.

An example of a predefined role is the Student role. An administrator can view the widgets this role has access to, but can't change the access.

For a user-defined role, select the role and then select or deselect **View** to make a widget available or unavailable.

Configure Widget Default Settings

From Student Central, click **Search** and search for **Student Central Widgets**. Select a widget.

For the To-dos widget, you can set the number of display rows. And for the Finances widget, you can set the display amount.

The Student Central widgets are dependent on the feature areas from which they draw data to present to the user. The user role must be granted access for both the widget and the feature it depends on:

- The To-Dos widget depends on Tasks and Checklists.
- The Applications widget depends on Application Forms.
- The Finances widget depends on Finances.

The Helpful Links widget doesn't have dependencies.

To view the Academics widget, a student must have an account and must be enrolled in a program or a course. The student needs access to the Academics page and the Course Schedule.

Configure Student Central Landing Pages

From Student Central, click **Search** and search for **Student Central Configurations**. Select a landing page.

Here's what you can view:

- The details of the page.
- The design of the page.
- A preview of the page design in desktop, mobile, tablet portrait, or tablet landscape format.
- The versions of the page: drafts, unpublished versions, and the currently published version.

The Versions tab is your starting point when you want to edit a Student Central landing page.

For example, here's how you make a change to a published page:

1. On the Versions tab, select the published version.
2. From the Actions menu, create a draft.
3. Make your changes. For example, here are the changes you can make on the Design tab:
    - Edit widgets. You might add a new link to the Helpful Links widget for example.
    - Add or hide widgets.
    - Move widgets up and down the page.
4. Use the Preview tab to review the changes you made.
5. Save your changes and then publish to make the updated page available to users.

Here's some things to keep in mind when you edit pages:

- The action you can take depends on the page status:
    - **Create Draft** for published or unpublished versions.
    - **Edit** for draft versions.
- The **Publish** button is available for drafts only.

Service Impacts

Create service impacts that identify specific services that are restricted or provided. Examples of service impacts can include transcript holds, stopping course enrollment, allowing use of the gym, and so on.

In the Setup and Maintenance work area, use the Manage Service Impacts task:

- Offering: Student Management
- Functional Area: Student Structures

After you create service impacts, associate them with service indicators. When you assign a service indicator to a person and select a reason for the assignment, the associated service impacts are assigned automatically to the person.

Retired Service Impacts

A retired service impact is still active but it won't be available for selection when you create a service indicator.

Related Topics

- Service Indicators

Service Indicators

Create service indicators to provide additional services or restrict access to certain services at your institution for a person. Service indicators consist of one or more service impacts that identify the types of specific services that are restricted or provided.

In the Setup and Maintenance work area, use the Manage Administrative Service Indicators task:

- Offering: Student Management
- Functional Area: Student Structures

Examples of service indicators can include library fine, late payment, and early enrollment. Each indicator must have one or more reasons. For example, the reason for the library fine indicator could be late return of a book or damaged book.

Default Service Impacts

Associate one or more service impacts with a service indicator. These associated impacts appear as default impacts when you create the indicator reason. You can then select which default impacts you want to associate with the reason.

Service Indicator Reasons

Associate a service indicator reason with one or more service impacts. When you create the indicator reason, add or remove the default impacts to indicate which impacts are associated with the reason. Only impacts associated with the indicator are available for selection. For example, suppose for Late Payment indicator, you have two impacts, Hold Transcript and Hold Enrollment. When you create a reason called Late Tuition, associate it with either Hold Transcript or Hold Enrollment, or both. When a user assigns a service indicator to a person and selects a reason, the impacts that go into effect depend on which reason is selected.

Default Service Indicator Reason

You can assign one reason as default. When a user assigns the service indicator to a person, this reason is automatically selected for the indicator. At that time, the user can change the default reason to some other reason.

Show to Recipient

A recipient is the person to whom you assign the service indicator. You can select whether the recipient can view the service indicator, the associated service impacts, or both the indicator and the associated impacts. The recipient views all this information on the self-service page.

Instruction to Recipient

For an indicator reason, you can add an instruction that a recipient can view on the self-service page. For example, the instruction can explain why an indicator has been assigned and the action that a recipient can take.

Active Service indicators

You can't inactivate a service indicator that's assigned to a person.

Rapid Implementation

You can also create service indicators and impacts using the Rapid Implementation process. Use the Create Administrative Service Indicators and Impacts in Spreadsheet task and the Upload Administrative Service Indicators and Impacts in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.

Related Topics

- Service Impacts
- Rapid Implementation for Oracle Student Management Cloud
- Manage Persons

Identifiers

Create and maintain identifiers to represent ID numbers and codes issued by national and local regulatory bodies, accreditation, and other professional organizations. Use identifiers to comply with regulatory and other reporting requirements.

Access the Identifiers page: From Student Central, click **Search** and search for **Student Management Identifiers**.

You can assign identifiers to various entities such as academic institutions and external organizations.

Contacts

Create and maintain person contact details such as default job title and department.

Access the Contacts page: From Student Central, click **Search** and search for **Contacts**.

You can assign contacts to various entities such as academic institutions and external organizations.

Locations

Create and maintain locations.

Access the Locations page: From Student Central, click **Search** and search for **Locations**.

Define a code for each location to more easily identify the location and avoid creating duplicate locations.

You can assign locations to various entities such as academic institutions and external organizations.

Attribute Tags

Create and maintain general or service hold tags. For example, you can create a general tag named Athlete and add it to a person profile. Also, group tags by adding tags to tag groups.

To create and maintain tags and tag groups, access the Manage Attribute Tags page. From Student Central, click **Search** and search for **Tags**.

Select **General** as the type to create a general tag. After creating the general tag, associate the tag with one or more tag groups. Associating a tag with a tag group makes the tag available for assignment. For example, associate a general tag with the **Person Attribute** tag group, so that you can assign the tag to person records.

Select **Service Hold** as the type to create a service hold tag. For service hold tags, you can provide this information:

- Steps on how to resolve the hold.
- Indicate whether the resolution can be done internally within the institution.
- If internal, the page destination where the end user can resolve the hold and the contact who can help the end user.
- If external, use the detailed mitigation steps to specify the contact who isn't part of your institution.

Once assigned, a tag can't be deleted or inactivated. You'll have to remove the assignment to be able to delete or inactivate the tag.

Bulk Person Attribute Tag Assignment

You can assign or remove general type attribute tags to person records in bulk.

Here's how you assign them in bulk:

1. From Student Central, click **Search** and search for **Bulk Assign Attributes**.
2. Select **Person** as the object type.
3. Select the attributes to assign.
4. Search and select the persons to whom you want to assign the attributes.
5. Click **Assign**.

Here's how you remove them in bulk:

1. From Student Central, click **Search** and search for **Bulk Remove Attributes**.
2. Select **Person** as the object type.
3. Select the attributes to remove.
4. Click **Search** to display the persons to whom all of these selected attributes were assigned.
5. Click **Unassign All**.

Related Topics

- Manage Persons

Student Management Lookups

Review Oracle Student Management Cloud lookups that have user or extensible configuration levels. Update them as appropriate to suit requirements of your academic institution.

Access the Manage Student Management Lookups page: From Student Central, click **Search** and search for **Manage Student Management Lookups**.

One way to search for lookups is to use the **User Module Name** field. For example, select **Tuition and Fees Setup** as the user module name to search for lookups related to tuition and fees setup.

Campus Community Lookups

This table shows examples of Campus Community lookups.

Lookup Type	Description	Configuration Level
ORA_HEY_NAME_TYPE	Name types, such as legal, maiden, and primary.	Extensible
ORA_HEY_RESIDENCY_CODE	Residency statuses of students, such as in state, out of state, and international.	Extensible
ORA_HEY_RESIDENCY_EXCPT_CODE	Exceptions for which residency rules don't apply, such as military, graduate student, and married to in-state student.	Extensible
ORA_HEY_RESIDENCY_EXC_PURPOSE	Purposes for which a residency exception is applied, such as tuition.	Extensible
ORA_HEY_RES_APPEAL_STATUS	Review statuses of a residency appeal, such as initiated, approved, and rejected.	Extensible
ORA_HEY_SELF_REPORTED_SOURCE	Sources of self-reported residency information, such as admissions application and residency application.	Extensible
ORA_HEY_SELF_REPORTED_STATUS	Review statuses of self-reported residency records, such as received, under review, and reviewed.	Extensible
ORA_HEY_RES_TYPE_CODE	Values to indicate to whom the residency record applies, such as student, spouse of student, and mother of student.	Extensible
ORA_HEY_MILITARY_BRANCHES	Branches of the military, such as air force, navy, and army.	Extensible

Lookup Type	Description	Configuration Level
ORA_HEY_MILITARY_STATUS	Statuses for the military branch of a person, such as active reserve, inactive reserve, and not a veteran.	Extensible
ORA_HEY_ETHNICITY	Values to indicate whether a person is of Hispanic or Latino origin.	User
ORA_HEY_RACE	Types of race, such as African American, Asian, and White.	User
ORA_HEY_ORG_TYPE	Types of external organizations, such as business, sponsorship, and nonprofit.	Extensible
ORA_HEY_ORG_CON_TYPE	Types of external organization contacts, such as registrar, sponsor coordinator, and guidance counselor.	Extensible
ORA_HEY_ORG_ID_TYPE	Types of external organization identifiers, such as CEEB, FICE, and NCES.	Extensible
ORA_HEY_SERVICE_TYPE	Types of a service in a service impact and service indicator, such as service provided and service restricted.	Extensible
HZ_GENDER	Person genders, such as female and male.	User
MARITAL_STATUS	Marital statuses, such as married, divorced, and single.	User
PARTY_SITE_USE_CODE	Types of party address usages, such as business, legal, and home.	User
CONTACT_POINT_PURPOSE	Types of purpose for phone and email contact, such as work, emergency, and home.	User

Student Records Lookups

This table shows examples of Student Records lookups.

Lookup Type	Description	Configuration Level
ORA_HER_FACILITY_CHARACTER	Physical characteristics and attributes of facilities to assist in scheduling courses and assignment of facilities. Examples include wireless network access, podium, and sound amplification.	User

Lookup Type	Description	Configuration Level
ORA_HER_FACILITY_CLUSTERING	Geographically groups buildings on a campus to facilitate scheduling courses and assignment of facilities. Examples include East A for eastern part of campus in grouping A and East B for eastern part of campus in grouping B.	User
ORA_HER_FACILITY_TYPE_CODE	Classifications of the facility used to assist in scheduling courses and assignment of facilities. Examples include auditorium, classroom, and computer lab.	User
ORA_HER_MESSAGE_TYPE_CODE	Contexts of the curriculum tags, such as faculty, scheduled course information, and textbooks.	Extensible
ORA_HER_STAFF_ROLE_TYPE_CODE	Roles to which staff members can be assigned, such as department chair, dean, and professor.	Extensible
ORA_HER_IMPACT_ACTION_CODE	Functionality that can be impacted by service impacts, such as restrict enrollment adds and restrict enrollment drops.	Extensible

A scheduled course is also known as a course section.

Student Financials Lookups

This table shows examples of Student Financials lookups.

Lookup Type	Description	Configuration Level
ORA_CREDIT_SOURCE_CODE	Values to indicate credit source, such as state sponsorship.	User
ORA_HES_ADJUSTMENT_OPTION_CODE	Valid adjustment options for the adjustment calendar, such as enrollment period start date, reporting period start date, and scheduled course start date.	Extensible
ORA_HES_CHARGE_METHOD_CODE	Valid methods to create academic period fees, such as by reporting period and by scheduled course.	Extensible
ORA_HES_SPONSOR_AGREE_STATUS	Valid statuses for a sponsorship agreement, such as draft, active, and inactive.	Extensible
ORA_HES_SPONSOR_AGREE_TYPE	Valid types of sponsorship agreements, such as course, scheduled course, and reporting period.	Extensible

Lookup Type	Description	Configuration Level
ORA_HES_TUITION_CALC_MODE	Modes in which tuition calculation was ran, such as calculate and post, and calculate only.	Extensible
ORA_HES_DUE_DATE_BASIS	Dates on which due date calculation is based, such as days from pivot date and days from system date.	Extensible
ORA_HES_DUE_DATE_CALENDAR_TYPE	Values to indicate whether a due date calendar is set for an academic period or a date range.	Extensible
ORA_HES_DUE_DATE_PIVOT_DATE	Values to indicate from which date a due date schedule is derived, such as reporting period start date and scheduled course start dated.	Extensible

A scheduled course is also known as a course section.

Student Admissions Lookups

This table shows examples of Student Admissions lookups.

Lookup Type	Description	Configuration Level
ORA_HEQ_ADMIT_TYPE	Types of applicant, such as new student, international, and transfer.	Extensible
ORA_HEQ_EVALUATION_STATUS	Evaluation statuses for applications, such as assigned, in review, and complete.	Extensible

Related Topics

- Overview of Lookups

Modify an Address Format

Address formats let you manage how student's address appears in the UI.

For example, you can modify an address format to:

- Indicate that the city and state values should appear in upper case.
- Mark a specific address attribute, such as postal code or state, as required.

To modify an address format:

1. In the Setup and Maintenance work area, use the Manage Address Formats task:
    - Offering: Student Management

- Functional Area: Student Structures

2. On the Manage Address Formats page, select a country from the drop-down list.
3. Click **Search**.
4. Click a result, for example, click **United States Postal Address Format**.
5. Click **Edit** to edit the layout.
6. In the Format Variation Layout area, use the:
   - **Required** column to set a field as required.
   - **Uppercase** column to display a field value in upper case.
   - **Prompt** column to change a field label.
   - **Add** icon to add an address attribute, such as Address Line 4.
7. Click **Save and Close**.

National Identifier Types

When a user enters a national ID for a person, they must select a national identifier type. For example, when the user enters an SSN value for a person, they must select SSN as the national identifier type.

Create one or more national identifier types for each country. For example, national identifier types for the United States can be SSN and driver's license. Another example is national identifier types for the United Kingdom can be passport and driver's license. You can review the delivered national identifier types and inactivate them, if required.

Access the Manage National Identifier Types page: From Student Central, click **Search** and search for **National Identifier Type**.

Population Selection

Population Selection lets you select a list of persons and their related data for a scheduled process. For example, you can use Population Selection with the Fee Calculation for Multiple Students process to select multiple students and calculate their fees.

Population Selection is available for these processes:

- Generate Billing Transactions
- Fee Calculation for Multiple Students
- Enroll Student Course Enrollments
- Drop Student Course Enrollments

Related Topics

- Population Selection Contexts
- What are scheduled processes?

Population Selection Contexts

A context is the scheduled process for which Population Selection is available. For example, Enroll Student Course Enrollments process is the context that can use Population Selection.

In the Setup and Maintenance work area, use the Manage Population Selection Process Contexts task:

- Offering: Student Management
- Functional Area: Student Structures

To configure a context, associate Oracle Transactional Business Intelligence (BI) queries with the process. A BI query is the analysis or report that you create in the Reports and Analytics work area to retrieve data. For example, with a BI query you can select student data for a particular academic term.

BI Subject Areas

When you create an analysis, you first select a subject area, which contains columns related to a specific business area. You can use these subject areas:

- Higher Education - Enrollment Real Time: Provides information on course enrollments.
- Higher Education - Person Real Time: Provides information on student person details.
- Higher Education - Student Accounts Real Time: Provides information on student charges, fees, and payments.
- Higher Education - Person Attributes: Provides information on tags assigned to persons.
- Higher Education - Service Indicators: Provides information on service impacts and service indicators assigned to persons.

BI Query Folder Locations

Select the folder that contains one or more BI queries. You can select multiple folders to associate multiple BI queries with the process. When users run the process, they can select one of these BI queries to specify which data they want to select.

Related Topics

- Population Selection
- Reporting and Analytics: Overview of Analyses, Dashboards, Reports, and Infolets
- Where to Find More Information About Analytics and Reports

Student Management Categories

Create categories to associate with academic tools such as communications. For example, when a user creates a communication related to admissions, they can associate this communication with the admissions category.

Access the Student Management Categories page: From Student Central, click **Search** and search for **Student Management Categories**.

Communications

Overview of Communications

Communications are email messages that an academic institution sends. Suppose you've created a communication for confirming admissions application submissions. When an applicant submits an application, this triggers an event, and the corresponding communication is automatically sent to the applicant.

To access the Communications work area: From Student Central, click **Search** and search for **Communications**. Use this work area to:

- Create a new communication.
- View or edit details of already created communications.
- Search for a particular communication or filter communications based on criteria, such as categories, events, and institutions.
- View which individuals received a particular communication and when they received it.
- Resend a communication, if needed.
- Find communication recipients and view the communications sent to them by the cloud application.

Related Topics

- Communication Categories
- Create a Communication
- Overview of Events

Communication Categories

Create communication categories for the delivered events.

You create a communication for each delivered event. For example, admit decision made is an event and you create a communication for this event.

Before you create communications, you must create communication categories for the delivered events. For example, you can group all the admissions related events into an admissions category, group all billing related events into a billing category, and so on.

To create these categories, access the Student Management Categories page: From Student Central, click **Search** and search for **Student Management Categories**.

Related Topics

- Overview of Communications
- Create a Communication

Create a Communication

Use the Communications work area to create communications.

To access the Communications work area: From Student Central, click **Search** and search for **Communications**. On the work area, click **Create Communication**.

Communication Type

You can create an event-based communication or a date-based communication.

Select **Event-based** if you want the communication to be triggered based on an event that occurs in the application. An example of event-based communication is the communication sent to applicants when an admit decision is made.

Select **Date-based** if you want the communication to be triggered based on a date related event. An example of date-based communication is the bill due reminders sent to students.

Communication Details

When you create the communication:

- Add attributes, such as category and academic organization, to the communication.
- Decide whether you want the communication to get inactivated automatically on a particular date.
- Select an event that triggers the communication. For example:
    - If you selected **Event-based** as the communication type, select the admissions application submission event from the **Select Event** field. This will send an automatic email to the applicants when they submit an admissions application.
    - If you selected **Date-based** as the communication type, select the task due event from the **Select Date** field. This will send an automatic email reminder to the applicants or students to complete their task.
- Decide whether to send the event-based communication immediately when triggered or at a specific time after it's triggered.
- For a date-based communication, specify the timing rule. For example, you can specify that the bill due reminders should be sent automatically three days before the due date and again one day before the due date.
- Decide whether to include program tokens in your communication that are related to assigned tasks and checklists. For example, you might want to design an email about approaching due dates, specific to the program the recipient is interested in.

Communication Events

You can create communications for delivered events. Here are examples of such events:

- Enrollment in a scheduled course.
  A scheduled course is also known as a course section.
- A scheduled course drop.
- Cancellation of a scheduled course.
- Addition of a scheduled course meeting.
- Cancellation of a scheduled course meeting.

- Instructor's announcements for students in a course roster.
- Payment to a student or sponsor account.
- Charges posted to a student or sponsor account.
- Refund posted to a student or sponsor account.
- Bill generated for a student or sponsor account.
- The payment initiated through student self service was received.
- No payment was required through student self service and the enrollment was successful.
- A student selected manual fee payment option.
- A bill is due reminder.
- Admissions application submission.
- Admit decision made.
- Admit decision made and payment is required for enrollment.
- Admission deny decision made.
- An invitation is sent to a recommender to submit a recommendation on behalf of an applicant.
- A checklist is assigned.
- A checklist is due reminder.
- A checklist is completed.
- A task is assigned.
- A task is due reminder.
- A task is completed.

You can see all the delivered events by clicking **Add Event** on the new category page or the edit category page.

Communication Format

When creating the content for a communication, you can format it using options such as font size, font color, text alignment, and institution's logo.

Tokens

Use tokens as placeholder text that fills automatically at runtime. For example, you can add the token {FIRST_NAME} to the communication content. When an email is sent to a student named Lisa Jones, the token is automatically filled up with the student's first name, which is Lisa.

This table shows examples of communication tokens.

Communication	Token
Admissions application submission	• Applicant's first name and last name • Applicant's preferred name • Application display name • Application submission date • Institution name • Current date

Communication	Token
	• Current date and time
Admit decision made Admission deny decision made	• Applicant's first name and last name • Applicant's preferred name • Application display name • Application submission date • Academic group • Academic program • Admissions decision • Academic program start date • Institution name • Current date • Current date and time
Admit decision made and payment is required for enrollment	• Applicant's first name and last name • Applicant's preferred name • Application display name • Application submission date • Academic program • Academic program URL • My finances URL • Admissions decision • Academic program start date • Institution name • Current date • Current date and time
Enrollment in a scheduled course A scheduled course drop	• Student's first name and last name • Student's preferred name • Scheduled course name • Instructor name • Scheduled course meeting patterns • Requisite content • Institution name • Current date • Current date and time
Addition of a scheduled course meeting Cancellation of a scheduled course meeting	• Student's first name and last name • Student's preferred name • Scheduled course name • Facility name

Communication	Token
	• Scheduled course meeting start date and time • Scheduled course meeting end date and time • Institution name • Current date • Current date and time
Instructor's announcements	• Student's first name and last name • Student's preferred name • Email body • Email subject • Institution name • Current date • Current date and time
Payment posted to a student or sponsor account	• Student's first name and last name • Student's preferred name • Amount paid • Institution name • Current date • Current date and time
Charges posted to a student or sponsor account	• Student's first name and last name • Student's preferred name • Charge amount • Institution name • Current date • Current date and time
Refund posted to a student or sponsor account	• Student's first name and last name • Student's preferred name • Refund amount • Institution name • Current date • Current date and time
Bill generated for a student or sponsor account	• Student's first name and last name • Student's preferred name • URL to view the bill • Institution name • Current date • Current date and time

Communication	Token
The payment initiated through student self-service was received	• Student's first name and last name • Student's preferred name • Receipt number • Amount paid • Institution name • Current date • Current date and time • Shopping cart ID
No payment was required through student self-service and the enrollment was successful	• Student's first name and last name • Student's preferred name • Institution name • Current date • Current date and time • Shopping cart ID
A student selected manual fee payment option	• Student's first name and last name • Student's preferred name • Institution name • Current date • Current date and time • Checkout message set up on the Manage Academic Business Unit page • Total amount due
A checklist is assigned A checklist is completed	• Applicant's or student's first name and last name • Applicant's or student's preferred name • Institution name • Current date • Current date and time • Checklist name • Checklist tasks list • Checklist start date • Checklist end date • Checklist due date • Checklist instructions • URL of assigned checklist

Action Tokens

You can create actionable communications, that allow the recipient to respond within the body of an email or through their self-service Message Center. For example, you might want to create an email asking a user to provide consent

for being added to a managed student group. Include action tokens when you create the email. They render as action buttons when the email is generated. The delivered action tokens are `{COMM_ACTION_ACCEPT}` and `{COMM_ACTION_DENY}`.

Schedule the Process to Send Date-Based Communications

After you create a date-based communication, run the Send Date-Based Communication process. This process sends all the date-based communications that you've set up. You must have the Higher Education Application Administrator role to run this process. In security console, the role code is ORA_HEY_HIGHER_EDUCATION_APPLICATION_ADMINISTRATOR_JOB.

To run the process:

1. Click **Navigator**, and in the Tools area, click **Scheduled Processes**.
2. On the Scheduled Processes Overview page, click **Schedule New Process**.
3. In the Schedule New Process dialog box, leave the type as **Job**, select the **Send Date-Based Communication** process in the **Name** field, and click **OK**. You can search for the process using the date keyword and selecting Send Date-Based Communication from the results.
4. In the Process Details dialog box, click **Advanced** and in the Advanced Options, Schedule tab, select **Using a schedule**.
5. Set the process to run daily at a particular time.
6. Click **Submit**.

Related Topics

- Overview of Communications
- Communication Categories
- Overview of Events
- Submit Scheduled Processes and Process Sets

Overview of Events

Events occuring in Oracle Student Management Cloud can trigger communications that are sent to subscribers. Subscribers can perform actions when For example, notifications can be sent when students enroll in courses, or payments are made to their accounts.

To access the System Events work area: From Student Central, click **Search**, click the **Academic Settings** icon, and expand **System Events**. Here, you'll see these areas::

- **Event Subscribers**

  View the subscribers to events. Subscribers are preexisting endpoints in the application. When an event occurs, communications are sent to the subscribers for that event. The subscribers can then perform actions, such as sending email communications.

- **Events**

  View a list of active and inactive events. You can click an event name in the list to view details of the event, including the event code, payload format, and description. You can search the list for specific events by name, and you can choose to display only active or inactive events using filtering options.

- **Events Workspace**
  View statistics about events and subscribers in a given time frame, such as total events, events by a particular status, and the success rate of delivery to subscribers.

Here are examples of events that can notify subscribers when they occur:

- Admissions application submission.
- Enrollment in a scheduled course.
- Instructor's announcements for students in a course roster.
- Bill generated for a student or sponsor account.
- A bill is due reminder.
- A checklist is assigned.
- A task is completed.

You can see all the delivered events by clicking **Add Event** on the new category page or the edit category page.

Related Topics

- Overview of Communications

Event Subscribers

The Subscribers page displays all the defined subscribers for events. Information about the subscribers is displayed next to each, including their statuses, last updated dates, and the users who last updated them.

Subscribers are predefined in the application. By default, subscribers are already associated with events. When an event is triggered, the subscribers associated with that event are notified.

To view all subscribers:

1. In the Academic Settings work area, expand the System Events menu and click **Event Subscribers**.All subscribers display by default.
2. If you know the name of the subscription you want to view, type the name in the **Search by Name** text box, and then click the search icon.
3. To view only active or inactive subscribers, click **Show Filters** and select the checkbox for those records you want to view. The report updates automatically to show you the appropriate records.
4. To view details of a subscription, click the subscription name.

To view subscribers to a specific event:

1. On the Events Page, click the name of an event. The details of the event display.
2. Click **Event Subscribers**. The list of current subscribers to the event displays.
3. If you know the name of the subscriber you want to view, type the name in the **Search by Name** text box, and then click the search icon.
4. To view only active or inactive subscribers, click **Show Filters** and select the checkbox for those records you want to view. The report updates automatically to show you the appropriate records.
5. To view details about a subscriber, click the subscriber name in the list. The Details page opens, displaying the subscriber name, end point name, code, and an optional description.
   To view metrics about the subscriber, click **View Events Workspace** on the Details page. Information about the subscriber's activity is shown on the workspace.

Events Workspace

Using the Events Workspace, you can monitor statuses of events, and their associated subscribers.

Metrics for events and subscribers are shown using charts and tabular data. By adjusting filters, you can specify reporting time frames, and the event or subscriber statuses you want to see. For example, you can view published events over the past week, and which subscribers were successfully notified.

By default, the Events Workspace displays a list of all events, along with the number of subscribers, and statistics about the number of times each event has fired, successfully processed, and failed over the past 24 hours. You can click the name of an event to view details about that event. However, you can also select search filters to display the information you want.

To select Events Workspace search options:

1. In the Academic Settings work area, expand the System Events menu and click **Events Workspace**.
2. By default, the **All Instances** option is selected. To report only on events or subscribers, click their respective options.
3. If you know the name of an event or subscriber you want to view, type the name in the **Search by Name** text box, and then click the search icon.
4. Click **Show Filters**. The Filters area displays.
5. Select the reporting time frame you want. From the menu, select **Within the Last**, **More Than**, or **Between**.

   The options that display vary depending on which reporting time frame you select. Selecting Within the Last or More Than lets you type a numeric value, and then select minutes, hours, days, or weeks time periods from a menu. Selecting Between lets you type the start and end dates you want in the text fields, or by clicking the calendar icons to select them from a calendar.

   For example, to report on event occurrences over the past two weeks, select **Within the Last**, type 2 in the text box, then select **Weeks** from the menu.
6. Select the broadcast or subscriber statuses you want to report on from using their respective checkboxes.

The report updates automatically when you select different search filters. The report is limited to 500 records, so you might need to run the report multiple times to return large amounts of data.

Status Schemes

Status schemes are groups of valid status values that apply to a business object. Decide which statuses to include in a scheme.

Map your statuses to these delivered status types:

- New
- In Progress
- Completed
- Paused
- Canceled

When you create a task you associate a status scheme with it to allow users who are assigned the task to choose from that set of statuses while working on a task. For example, an admissions office may want to create a status scheme that contains multiple statuses, all indicating In Progress steps, to be used by evaluators during the application process.

Note: A status scheme must contain at least one status in the scheme for each delivered status type, except for **New**.

From Student Central, click **Search** and search for **Status Schemes**.

Use Functional Setup Manager to export status schemes set up in one student environment and import them into another student environment.

Status Schemes and Tasks

When you create a task (from Student Central, click **Search** and search for **Task Management**), you must assign a status scheme to it. When you choose a status scheme, you can see all of the statuses included in it. This helps you be sure that you've chosen the appropriate set of status options for the task assignee to use.

Related Topics

- Overview of Tasks and Checklists

Tasks and Checklists

Overview of Tasks and Checklists

Create and manage tasks and checklists for applicants and students. For example, an academic institution may want to create a task for applicants to submit a recommendation letter.

To manage tasks, from Student Central, click **Search** and search for **Task Management**. To manage checklist, from Student Central, click **Search** and search for **Checklist Management**. From Student Central, click **Search** and search for **Task Assignments** to go to the task assignments landing page with a list of assigned tasks. Here is what you can do in these work areas:

- Create a task.
- Create a checklist and add tasks to it.
- Create a task assignment.
- For a task or checklist, add a due date and any specific instructions for the applicants and students.
- Edit a task if it hasn't been already assigned.
- Assign a task to one or many people at once.
- Search for a specific assignment.
- View assignment data, such as the list of persons to whom tasks have been assigned.
- Set communications for task milestones, such as notifying an assignee upon completion.
- Designate a task as one that can be reassigned from one person to another.

To export and import tasks and checklists from one environment to another, see *How do I export and import tasks and checklists?*

Related Topics

- Manage Persons

Create Tasks and Checklists

For a task or checklist, you can add a due date and any specific instructions for the applicants and students.

> **Note:** If you have tasks and checklists in one environment, say a test environment, you can export them and then import them to another environment. For information, see *How do I export and import tasks and checklists?*

You can add a specific date and time as the due date, set no due date at all, or set up the due date to be automatically calculated after the task or checklist is assigned. For example, configure the due date as 7 days after a task is assigned. While configuring a due date, you must specify the time zone for that due date. To be able do that, enter at least one default time zone on the Manage Time Zone Settings page.

> **Note:** If your institution has only one time zone listed on the Manage Time Zone Settings page, the time zone field in the tasks and checklists UI becomes read-only and it automatically displays the single default time zone.

Users can see the due dates in their preferred time zone so they understand exactly what time is referenced by the task or checklist.

Assign attribute tags to tasks and checklists. Thus, you can filter search results by tags assigned to them and quickly find a task or checklist.

You can also select whether a task is a **Manual Task**, one that's completed manually outside of Student Management, or a **Document Submission Task**, which means you upload a document as part of the task. You must associate the task with a status scheme, which determines the status options available to the person performing the task.

When you design a task- or checklist-related communication, you can add up to five program tokens to provide program-specific information related to these events:

- Task Assigned
- Checklist Assigned
- Task Due
- Checklist Due

You can define these program tokens and include them in the body of that communication (such as an e-mail about approaching due dates).

Related Topics

- Create a Communication
- Time Zone Settings

Review Task and Checklist Assignments

Create task assignments for one to many people and view or update the assignment details. You can assign all tasks within a checklist to students.

From Student Central, click **Search** and search for **Task Assignments** to go to the task assignments landing page with a list of assigned tasks. Narrow down the assigned task list using different advanced search criteria like Status, Assignee, Due Date, and so on. You can also view a task details by clicking a task name.

Here are some examples of task details:

- Person name to whom the task is assigned.
- Highlighted due date and time for overdue task.
- Status, such as in progress or completed.
- Assigned date.

While creating a new task assignment, select assignment purposes to associate it with an object, such as General. You can see assignments summary and detail information while progressing through the assignment wizard. This helps to maintain context of the task being assigned and to ensure the accuracy of your assignments. View or edit the summaries of choices selected in each step of the task assignment wizard before triggering the assignment.

Assign multiple tasks at once. While doing that, narrow down the task list using the different Advanced Search criteria like Tags, Checklist Name, and so on.

Assign the selected tasks to multiple people within the organization. Narrow down the person list using different Advanced Search criteria like Date of Birth, Attributes, and so on.

Use the Select Task Options to confirm if you want to notify assignees, send due date reminders, or enable tasks to be reassigned to another person.

Task and Checklist Versions

You can create and publish new versions of tasks and checklists from ones that are already published and in use. Only a published version can be assigned to the learner.

To create a new task version in Task Management:

1. Open any task and on the **Versions** tab, click the ellipses on the row for the task and click **Create Draft** to start a new version based on it.
2. (Optional) Add any comments about this version.
3. On the **Details** tab, you can update values for some specific attributes such as Task Name, Due Date Type, and so on.
4. When the task is ready, click the **Publish** button.

The new version then replaces the old published version for new task assignments. On the **Versions** tab, you can see all the current and previous versions of the task. The task is then ready to be assigned.

Any new assignments of a versioned task or checklist will use the newest published version.

Task Settings

Prompt a student or administrator user to mark a document submission task complete if the document has already been uploaded when leaving the details page for the task.

Configure whether to turn on or off these behaviors at a global level in Student Management.

1. From Student Central, click **Search** and search for **Task and Checklist Settings**.
2. Click the toggle button to enable **Request User to Mark Document Submission Tasks Complete** setting.

When a document submission task is marked complete, Student Management Cloud selects the default status matching the **Complete** status type for the defined status scheme for that task.

Brand Learning Catalogs

Specify the branding style for each learning catalog of your institution. Each learning catalog, such as an Undergraduate learning catalog or a Continuing Education learning catalog, can display a different logo and color theme.

Access the Branding page: From Student Central, click **Search** and search for **Specify Branding and Colors**.

Select a logo for larger screen sizes such as desktops and laptops, and select a logo for smaller screen sizes. Logo for larger screen sizes should have a rectangular format, where the width should be significantly greater than the height. Examples of such a format are 685 x 130 pixels or 1009 x 105 pixels. Logo for small screen sizes should have a square format, where the width should be equal to height, for example, 300 x 300 pixels. The logo should be in PNG format.

After selecting the logo and branding color, preview this branding configuration, for both mobile devices and desktop, before saving the configuration.

After creating a branding style on the branding page, use the Learning Catalogs page to associate the branding style with a learning catalog. If you haven't selected a branding style for a learning catalog, then that particular learning catalog uses the branding associated with the default learning catalog. Also, the branding of many administrative and setup pages is determined by the branding style you selected for the default learning catalog. An example of such an administrative page is the Person Profiles page (From Student Central, click **Search** and search for **Person Profile Search**). An example of such a setup page is the Communications page (From Student Central, click **Search** and search for **Communications**).

Branding for Other Pages

For rest of the pages, use the themes settings on the Appearance work area to configure branding.

Related Topics

- Learning Catalogs
- Overview of Configuring Themes and Home Page Settings

User Locale Preferences

Configure the locale preferences for students and applicants.

These preferences are date, time and number formats, as well as time zone. Students and applicants can go to their profile page to see these preferences. Also, the date, time, and number fields in the communications sent to the students and applicants are automatically formatted according to these preferences.

To set up the preferences:

1. In the Setup and Maintenance work area, go to the Manage Administrator Profile Values task.
2. Set the preferences as profile values for these profile options:
    - FND_TIMEZONE
    - FND_TIME_FORMAT
    - FND_DATE_FORMAT
    - FND_NUMBER_FORMAT

Related Topics

- Hierarchy in Profile Levels
- Set Profile Option Values

Time Zone Settings

Set up multiple global time zones for your institution.

Use these time zones when you create course sections for student enrollment. For example, your institution might offer courses at different campuses across multiple time zones. Students can see the time zone information for each course section in the Learning Catalog.

Before you start, make sure that a site level profile value exists for FND_TIMEZONE:

1. In the Setup and Maintenance work area, go to the Manage Administrator Profile Values task.
2. Search for a **Profile Option Code** of **FND_TIMEZONE**.
3. For the **Site** profile level, make sure that a value is selected. For example, US Eastern Time.

To set up time zones, access the Manage Time Zone Settings page. From Student Central, click **Search** and search for **Manage Time Zone Settings**.

When you access the page, you're asked whether you want to use the FND_TIMEZONE as the default.

You must enter at least one default time zone to be able to create or load, via Rapid Implementation, courses and course sections.

Age Settings

Configure age limits to identify a person as fully managed, jointly managed or self-managed.

Here are the differences between the age limit management levels for a person:

- A fully managed person's actions are controlled by another person. For example, a child under the age of 13 in the United States whose actions are managed by a parent.
- A jointly managed person's actions are shared with another person. For example, a teen whose actions are shared with a parent.
- A self-managed person controls their own actions, for example, an adult.

To configure the Age Limits:

1. From Student Central, click **Search** and search for **Age Settings**.
2. Move the self-managed age slider to set the age limit.

Person Relationship Types

Determine the relationships that users can establish between students and group managers in a managed student group.

Access the Configure Person Relationship Type page: From Student Central, click **Search** and search for **Configure Person Relationship Type**.

The relationship types of Parent and child and Dependency are predefined as activated and they can't be inactivated. When an account is created for a fully or jointly managed person, the user must assign a relationship and only these predefined relationships appear at that time. Fully or jointly managed persons must establish whether they are a child or dependent of a group manager.

Activate those types that you want to appear when users assign a relationship between a self-managed person and a group manager. The relationships predefined as activated and those that you activate appear for the self-managed person. For example, if you activated the spousal type, then the spousal relationship along with the relationships predefined as activated appear when users assign relationship.

Users must establish a relationship in these account creation scenarios:

- Fully or jointly managed person signing up for an account.
- Administrator creating an account for a fully or jointly managed person.
- Delegated access account creation, which means managed student group owner creating an account for fully, jointly, or self-managed person.

Related Topics

- Age Settings
- Create Managed Student Groups

External Organizations

External organizations can include high schools, universities, sponsorship organizations, and so on.

Here are examples of how external organizations are used:

- Applicants select the high school or university where they studied when filling out an online application.
- Organizations can sponsor students.
- Organizations also include the external subjects and courses of external institutions, which will be used in transfer credit processing. The transfer credit processing functionality isn't currently available.

Rapid Implementation

You can create external organizations using the Rapid Implementation process. Use the Create External Organizations in Spreadsheet task and the Upload External Organizations in Spreadsheet task in the Setup and Maintenance work area, Student Management offering. These two tasks are in the Academic Structures functional area.

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Manage External Organizations

14 Student Records

Overview of Student Records Implementation

Oracle Student Records enables you to set up and maintain your academic structures, curriculum structures, curriculum items, and academic calendars.

You can enter, track, and process all academic information, from the course catalog and to student programs. You can enroll, grade, and evaluate students.

Users with the Application Implementation Consultant job role can implement Student Records. This topic provides an overview of the individual setup tasks for Student Records implementation. Or, you can complete much of the implementation using the Rapid Implementation process.

Academic Structures

Follow this order during your implementation.

Sequence	Page or Task Name	Navigation	Description
Optional	System Offices	From Student Central, click **Search** and search for **System Offices**.	Optionally create and maintain system offices. System offices often have common oversight of institutions and their associated entities via a central governing office that might control funding, compliance, state reporting, and so on.
1	Academic Institutions	From Student Central, click **Search** and search for **Academic Institutions**.	Create and maintain academic institutions. For an organizational structure such as an institutional system or consortium, an academic institution might not be the highest level entity. For an organizational structure that doesn't include a system office or consortium, an institution is often the highest level entity.
2	Campuses	From Student Central, click **Search** and search for **Campuses**.	Create and maintain campuses. A campus can be both a physical and organizational entity.
3	Learning Catalogs	From Student Central, click **Search** and search for **Learning Catalogs**.	Create and maintain learning catalogs. Use the Learning Catalog feature to create student home pages with your own branding.

Sequence	Page or Task Name	Navigation	Description
4	Academic Organizations	From Student Central, click **Search** and search for **Academic Organizations**.	Create and maintain academic organizations. Academic organizations represent the various schools or divisions that are part of your institution.
5	Academic Subjects	From Student Central, click **Search** and search for **Academic Subjects**.	Create and maintain academic subjects. Academic subjects identify a distinct discipline, field of study, or the main topic of a course.
6	Academic Levels	From Student Central, click **Search** and search for **Academic Levels**.	Create and maintain academic levels, such as undergraduate or graduate, which you can attach to curriculum items.
7	Academic Period Attribute Dates	From Student Central, click **Search** and search for **Academic Period Attribute Dates**.	Create and maintain date attributes that are used to define academic periods. An academic period is the date foundation for creating courses and course sections and for student enrollment.
8	Academic Periods	From Student Central, click **Search** and search for **Academic Periods** .	Create and maintain academic time periods to document dates and deadlines for enrollment, learning, and other activities at your institution.
9	Academic Period Sequencing	From Student Central, click **Search** and search for **Academic Period Sequencing** .	Create and maintain a chronological sequence of academic reporting periods that mirrors the institutional calendar.
10	Manage Academic Staff	From Student Central, click **Search** and search for **Manage Academic Staff**.	Assign academic staff to an institution and academic organization. The assignments will allow staff members to perform various tasks.
11	Buildings	From Student Central, click **Search** and search for **Manage Buildings**.	Create and maintain buildings for course meetings and other learning activities.
12	Facilities	From Student Central, click **Search** and search for **Manage Facilities**.	Create and maintain rooms for course meetings and other learning activities.
13	Credentials	From Student Central, click **Search** and search for **Credentials**.	Create and maintain the credentials, such as a certificate, that the institution might offer. A credential is awarded to a student

Sequence	Page or Task Name	Navigation	Description
			after the successful completion of study.
14	Manage Service Impacts	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Create service impacts that you can map to enrollment actions.
15	Administrative Service Impact Mapping	From Student Central, click **Search** and search for **Administrative Service Impact Mapping**.	Map service impacts to predefined enrollment actions.
16	Manage Standardized Tests	From Student Central, click **Search** and search for **Standardized Tests**.	Define which standardized tests will be recorded for applicants and students. Associate the components to the test along with valid score ranges for each component.

Curriculum Structures

Follow this order during your implementation.

Sequence	Page or Task Name	Navigation	Description
1	Manage Result Sets	From Student Central, click **Search** and search for **Manage Result Sets**.	Create and maintain the values that will be used for learner grades and other types of results.
2	Manage Result Types	From Student Central, click **Search** and search for **Manage Result Types**.	Create and maintain the types of results that will be stored and tracked for learners.
3	Drop Schemes	From Student Central, click **Search** and search for **Drop Schemes**.	Create and maintain drop schemes to map a drop type to an enrollment status and, where relevant, a penalty result.
4	Curriculum Build Statuses	From Student Central, click **Search** and search for **Curriculum Build Statuses**.	Create and maintain build statuses for curriculum items. Build status indicates the life-cycle stage, such as in review, for a curriculum item such as a program.
5	Manage Curriculum Tags	From Student Central, click **Search** and search for **Manage Curriculum Tags**.	Create and maintain curriculum tags and attach them to curriculum items to display items in particular

Sequence	Page or Task Name	Navigation	Description
			categories and order in student self-service pages.
6	Program Types	From Student Central, click **Search** and search for **Program Types**.	Create and maintain program types, such as major or minor, to use when you create programs.
7	Program Action Reasons	From Student Central, click **Search** and search for **Program Action Reasons**.	Create and maintain program action reasons. Associate reasons with program actions for reporting purposes and to provide useful information to staff when they review a student's record.
8	Requirement Categories	From Student Central, click **Search** and search for **Requirement Categories**.	Create and maintain requirement categories to indicate how a program element such as a course will be incorporated into a program.
9	Requisite Schemes	From Student Central, click **Search** and search for **Requisite Schemes**.	Create requisite schemes to map requisite statuses to result outcomes.
10	Enrollment Action Reasons	From Student Central, click **Search** and search for **Enrollment Action Reasons**.	Create and maintain enrollment action reasons.

Curriculum Items

Follow this order during your implementation.

Sequence	Page or Task Name	Navigation	Description
1	Courses	From Student Central, click **Search** and search for **Courses**.	Create and maintain courses.
2	Course Sections	From Student Central, click **Search** and search for **Course Sections**.	Create and maintain course sections.
3	Course Lists	From Student Central, click **Search** and search for **Course Lists**.	Create and maintain course lists.
4	Academic Groups	From Student Central, click **Search** and search for **Manage Curriculum**. Then click **Actions**.	Create and maintain academic groups.

Sequence	Page or Task Name	Navigation	Description
5	Programs	From Student Central, click **Search** and search for **Manage Curriculum**.	Create and maintain programs.

Related Topics

- Overview of Rapid Implementation for Oracle Student Management Cloud

Academic Structures

System Offices

A system office is a structural entity that's often the highest level entity in an organizational structure, such as an institutional system.

System offices often have common oversight of institutions and their associated entities via a central governing office that might control funding, compliance, state reporting, and so on.

Access the System Offices page: From Student Central, click **Search** and search for **System Offices**.

You can assign person contacts, location addresses, and identifiers to a system office.

You can also create child relationships between a system office and academic institutions. After you create the relationships, you can then view the entities and where they sit in the overall hierarchy.

Rapid Implementation

You can use Rapid Implementation to create and load system offices. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures in Spreadsheet
- Upload Academic Structures in Spreadsheet

Academic Institutions

An academic institution represents part of the academic and physical structure of a higher education organization.

Configure academic institutions, and other organizational entities such as campuses, to meet your particular business needs. For an organizational structure such as an institutional system or consortium, an academic institution might not be the highest level entity. For an organizational structure that doesn't include a system office or consortium, an institution is often the highest level entity. An example is a university or college.

Access the Institutions page: From Student Central, click **Search** and search for **Academic Institutions**.

You must create at least one academic institution per installation.

Here are some things that you can do:

- Create multiple institutions per installation.
- Enter a future start date for an institution.
- Assign person contacts, location addresses, and identifiers.
- Create relationships between an academic institution and other entities:
  - A parent relationship with a system office.
  - Child relationships with campuses.

Rapid Implementation

You can use Rapid Implementation to create and load academic institutions. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Campuses

A campus can be a physical or virtual entity. It's often used to delineate teaching locations, faculty and staff assignments, and location-specific billing practices.

Access the Campuses page: From Student Central, click **Search** and search for **Campuses**.

You must create at least one campus for each academic institution.

Here are some things that you can do:

- Enter a future start date for a campus.
- Assign person contacts, location addresses, and identifiers.
- Create relationships between a campus and other entities:
  - A parent relationship with an academic institution.
  - Child relationships with academic organizations.

Rapid Implementation

You can use Rapid Implementation to create and load campuses. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures
- Upload Academic Structures

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Learning Catalogs

Use learning catalogs to create student home pages with your own branding.

Access the Learning Catalogs page: From Student Central, click **Search** and search for **Learning Catalogs**.

You can create one learning catalog. Or you can create multiple learning catalogs, such as Undergraduate and Continuing Education, and set one as the default.

Use the Specify Branding and Colors task to create branding styles. Then here, select branding for a learning catalog. If you don't select branding for a learning catalog, the default learning catalog branding is used.

You can also select an image for a learning catalog. Aim for a width of about 2500 pixels to ensure that the image is clear. The minimum width possible is between 1500 and 1600 pixels. The only requirement for the height of the image is that it must be at least double the height of the space.

If you create multiple learning catalogs, the ability to specify a learning catalog to present to self-service users isn't currently available.

For information about how course section time zones display for learning catalog users, see the Create Course Sections topic.

Rapid Implementation

You can use Rapid Implementation to create and load learning catalogs. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Brand Learning Catalogs

Academic Organizations

Academic organizations are part of the academic and physical structure of a higher education organization.

An academic organization can represent different types of organizations within an institutional structure, such as college, school, division, or department.

Access the Academic Organizations page: From Student Central, click **Search** and search for **Academic Organizations**.

Here are some things that you can do:

- Enter a future start date for an organization.
- Assign person contacts, location addresses, and identifiers.
- Create a parent relationship between a campus and an academic organization.

Rapid Implementation

You can use Rapid Implementation to create and load academic organizations. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures
- Upload Academic Structures

Related Topics

- Academic Institutions
- Rapid Implementation for Oracle Student Management Cloud

Academic Subjects

An academic subject identifies a distinct discipline, field of study, or the main topic of a course.

Access the Academic Subjects page: From Student Central, click **Search** and search for **Academic Subjects**.

Subject name and code must both be unique.

You can enter a future start date for a subject.

You can assign ownership of a subject to an academic organization.

Rapid Implementation

You can use Rapid Implementation to create and load academic subjects. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Academic Institutions
- Academic Organizations
- Rapid Implementation for Oracle Student Management Cloud

Academic Levels

An academic level is a specific classification of higher education. For example, a traditional credit-bearing university might have academic levels such as undergraduate, graduate, and continuing education.

For other schools, levels might indicate a profession, such as medicine, law, dental, or professional.

Create academic levels to attach to curriculum items such as courses and programs.

Access the Academic Levels page: From Student Central, click **Search** and search for **Academic Levels**.

Full-Time Minimum Unit Load

When **For credit** is selected, courses and programs at this academic level can lead to a degree or other formally recognized qualification. **For credit** is selected by default. Enter the minimum full-time units for levels where **For credit** is selected.

You can also use these attributes to calculate and report Student Management usage metrics. Click **Tools** > **Scheduled Processes** > **Schedule New Process**. The process is **Generate Cloud Usage Metrics**. The Metric Name is **Student Management Cloud Service - Hosted FTE Student**. Only users who are Service Administrators can generate usage metrics.

Primacy

Assign a primacy value to specify the primary program for purposes such as internal and regulatory reporting and tuition calculation. A lower number indicates a higher primacy value. Let's say you assign a primacy number of 10 for undergraduate level and 20 for graduate level. A student is concurrently enrolled in a Pre-Law program (undergraduate) and a Masters of Business Administration (graduate) program. The Pre-Law program is the primary program.

Enrollment Inclusions

If enrollment is restricted to students who are assigned to a program, indicate which student academic levels can enroll in a course. Do this by creating enrollment inclusions for the course academic level. Enrollment inclusions apply only when the **Requires student program** check box is selected. If a program isn't required, such as for a non-degree academic level for Continuing Education, enrollment inclusions aren't relevant. In this case, enrollment in the course is open to anyone.

Here's an example:

1. Create an academic level of **Undergraduate**.
2. Select the **Requires student program** check box.
3. In the Enrollment Inclusions grid, add an **Academic Level** of **Graduate**.
4. When you create a course, attach the undergraduate academic level to the course.

A student can enroll in the undergraduate level course if both these things are true:

- The student is assigned to a program.
- The student has an academic level of undergraduate or graduate (the enrollment inclusion level).

Ownership

You can assign ownership of an academic level to one or more academic institutions.

Rapid Implementation

You can also create and load academic levels using the Rapid Implementation process.

Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Add Attributes for Programs
- Create Academic Groups
- Rapid Implementation for Oracle Student Management Cloud

Academic Period Attribute Dates

Overview of Academic Period Attribute Dates

Academic period attribute dates are landmarks in time such as the first date to enroll and the last date to drop a course section.

Attribute dates are a key part of academic periods. You use academic periods when you create courses and course sections in which students enroll.

Some predefined attributes are available. They represent specific milestones that are required for downstream functionality such as enrollment.

You can also create user-defined attributes to meet your institution's business requirements. Examples include census date and last program change date which can be used for reporting and tracking.

Academic period attribute dates are also used in the configuration of the Drop Scheme feature. *Drop Schemes*

Create and Manage Academic Period Attribute Dates

Create and maintain date attributes that are used to define academic periods.

Prerequisite Features

Set up these features before you create academic period attribute dates and academic periods:

1. Manage Time Zone Settings *Time Zone Settings*

   Required if you use a calculation method of manual entry and a date type of date time on academic period attribute dates and academic periods.
2. Academic Institution *Academic Institutions*

   Required for academic periods.

Decide Which Attributes You Need

To access the Academic Period Attribute Dates page: From Student Central, click **Search** and search for **Academic Period Attribute Dates**.

You can view all attributes or search by attribute name or attribute code.

Before you configure attribute dates for the predefined attributes in your environment for the first time, decide which attributes you need. Some attributes ensure that your students can search, add course sections to their cart, and enroll in and drop course sections. We recommend that you configure at least these attributes.

Attribute Name	Description
First Date to Search	The first date on which students can search for course sections.
Last Date to Search	The last date on which students can search for course sections.
First Date to Add to Shopping Cart	The first date a student can add course sections to their shopping cart.
Last Date to Add to Shopping Cart	The last date a student can add course sections to their shopping cart.
First Date to Enroll	The first date a student can enroll in course sections.
Last Date to Enroll	The last date a student can enroll in course sections.
Last Date to Drop	The last date a student can drop course sections in the academic period.

Here are some other predefined attributes that you might configure, based on your business requirements and which aspects of the Student Management features you use.

Attribute Name	Description
First Date to Add to Wish List	The first date on which students can add courses to their wish list.
Last Date to Add to Wish List	The last date on which students can add courses to their wish list.
First Date to Add to Waitlist	The first date a student can add course sections to the waitlist.
Last Date to Add to Waitlist	The last date a student can add course sections to the waitlist.
Last Date to Drop: Do not Retain	The last date a student can drop a course section, where the course section isn't retained on their student record.
Last Date to Drop: Retain	If a student drops the course on or after this date, the course section remains on their student record as a dropped course.
Last Date to Drop: Penalty	If a student drops a course section on or after this date, a grade penalty is applied to their course section result.
Last Date to Drop: Greater Penalty	If a student drops a course section on or after this date, a greater grade penalty is applied to their course section result.
Auto Tuition Calculation	Use the Auto Tuition Calculation attribute to indicate when tuition calculation will run for a particular academic period. Associate this attribute with a reporting period.

Attribute Name	Description
Auto Tuition Calculation, Self Service	Use the Auto Tuition Calculation, Self Service attribute to indicate when tuition calculation will run for a particular self-paced academic period. Associate this attribute with a reporting period. **Note:** As of 22D, you can't create self-paced academic periods.
Midterm Grade Release	The date on which midterm course grades will be released to students in the learning catalog and student scheduler.
Final Grade Release	The date on which final course grades will be released to students in the learning catalog and student scheduler.

For next steps, see these topics:

Configure Academic Period Attribute Dates for Predefined Attributes

Create User Defined Academic Period Attribute Dates

Rapid Implementation

You can use Rapid Implementation to create and load academic period attribute dates. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Periods in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Configure Your Academic Structures for the Student Course Schedule
- Rapid Implementation for Oracle Student Management Cloud
- Create and Manage Academic Periods

Configure Academic Period Attribute Dates for Predefined Attributes

Configure dates for predefined attributes such as first date to enroll.

1. From Student Central, click **Search** and search for **Academic Period Attribute Dates**.
2. Click the attribute name.
3. Select a calculation method. The dates or pivot settings you enter here are default settings that can be changed when the attribute is assigned to an academic period.
    - **Manual entry**:

      Select a date type to indicate when the attribute comes into effect. Select **Date** to indicate the date only. Select **Date time** to indicate the time and time zone and the date.
    - **Pivot**:

      Select this method to define settings for the calculation of the attribute date on the academic period. After the attribute is assigned to the academic period when the period is created, the attribute date is

calculated based on the pivot settings. You can update the default pivot settings on the academic period and recalculate the date.

Enter the required pivot data. The **Days Adjusted By** field means that you can have milestone dates outside the academic period dates. An example is if activities need to take place before the academic period begins.

4. The tuition calculation attributes are the only predefined attributes which have a date type of **Range**. For these attributes, you can define a default date range that automatically defaults in when the period attribute is added to an academic period.
5. Add tags to an attribute to indicate the type of period with which the attribute should be associated. For example, **Academic** or **Academic Reporting**. You can also remove tags.

   When you create a period, the attribute is automatically added to the period based on a match between the attribute tag and period type.

   It's likely that you'll want to assign most attributes at the academic period level, as this provides more granular date control for each milestone. The only attributes to assign at the reporting period level are **Auto Tuition Calculation** and **Auto Tuition Calculation Self Service**, if required.

   The **Drop Attribute** and **Penalty Drop Attribute** tags are used in the Drop Scheme feature. They're not used for associating academic period attributes with academic periods. *Drop Schemes*
6. Click **Save**.
7. Click **Cancel** to return to the landing page.

   If the attribute has a pivot calculation method, the **Tags**, **Pivot Date Type**, **Offset**, and **Days Adjusted By** data displays for the attribute on the landing page.

Note: You can't delete predefined academic period attribute dates.

Create User Defined Academic Period Attribute Dates

You can create user defined academic period attribute dates to represent specific milestones at your institution.

For example, census date or last date to change a program.

These attribute dates don't have functionality and can be used for reporting only.

1. From Student Central, click **Search** and search for **Academic Period Attribute Dates**.
2. Click **Create Period Attribute**.
3. Enter a unique name and code.
4. Follow the steps from step 2 in the Configure Academic Period Attribute Dates for Predefined Attributes topic. *Configure Academic Period Attribute Dates for Predefined Attributes*

If you create user defined attributes for the drop scheme, tag the attributes with **Drop Attribute** or **Penalty Drop Attribute**. *Drop Schemes*

Note: You can't delete user defined period attribute dates if they're associated with an academic or academic reporting period.

Academic Periods

Create and manage academic periods.

Here's a link to the academic periods documentation, beginning with the overview topic: *Overview of Academic Periods*

Buildings and Facilities

Create buildings and facilities to use when scheduling course sections and exams.

Access the Buildings page: From Student Central, click **Search** and search for **Manage Buildings**.

Access the Facilities page: From Student Central, click **Search** and search for **Manage Facilities**.

Buildings

You must create buildings before you create facilities.

Here are some things that you can do:

- Assign person contacts and location addresses to buildings.
- View the facilities that are part of the building.
- Assign ownership of a building to a campus.

Facilities

A facility is uniquely identified by the facility code that, is generated using the building code and the facility room number.

Here are some things that you can do:

- Assign person contacts to facilities and view location addresses for associated buildings.
- Assign facility ownership to a campus and to academic organizations within that campus.
- Use blackout dates to indicate that a facility is unavailable and should not be scheduled for particular days and times.

Rapid Implementation

You can use Rapid Implementation to create and load buildings and facilities. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Facilities in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Academic Staff Assignments

You must create a staff assignment for each academic institution and academic organization that offers courses or programs. You can create assignments only for staff members who already exist in the TCA Party table as a person.

Access the Manage Academic Staff page: From Student Central, click **Search** and search for **Manage Academic Staff**.

To create a staff assignment or edit an existing assignment, search for and select a staff member.

> **Note:** You must associate all contacts (course), staff (course sections), and advisors (student program) with the appropriate academic institution and academic organization.

You can optionally assign staff to a subject area, catalog number, and campus. You can also add biographical information about the staff member and format that information.

Rapid Implementation

You can also create and load academic staff assignments using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Staff in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Academic Institutions
- Campuses
- Academic Subjects
- Academic Organizations
- Rapid Implementation for Oracle Student Management Cloud

Academic Credentials

Academic credentials are degrees, diplomas, or certificates that students can earn after the successful completion of their study. Credentials are recorded on a student's academic record. Creating credentials is optional.

Access the Credentials page: From Student Central, click **Search** and search for **Credentials**.

Enter a credential formal name for use on documents such as a student's academic transcript. When the **Active** check box is selected, a credential becomes active on the date that you enter in the **Start Date** field. You can enter a future start date.

Rapid Implementation

You can also create and load academic credentials using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Academic Structures in Spreadsheet
- Upload Academic Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Add Attributes for Programs

Service Indicators for Enrollment

An administrative service indicator on a student's record can impact enrollment. For example, a student who owes money to the institution can't enroll. Define your own service impacts, such as Block Enrollment, and map them to predefined enrollment actions.

1. Define service impacts. In the Setup and Maintenance work area, use the Manage Service Impacts task:
    - Offering: Student Management
    - Functional Area: Academic Structures
2. Map your service impacts to predefined enrollment actions:
    - Restrict enrollment adds.
    - Restrict enrollment drops.

    From Student Central, click **Search** and search for **Administrative Service Impact Mapping**.

Rapid Implementation

You can also create and load service impact mapping using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Service Impacts

Configure Standardized Test

Define which standardized tests will be recorded for applicants and students. Associate the components to the test along with valid score ranges for each component.

Create, update, and delete various standardized tests, their components and valid score ranges. Test components may include total score, math section score, and so on. These test data can be used for admissions or student records processes. Oracle Fusion Cloud Student Management provides the standardized test setup for ACT, SAT, TOEFL, IELTS, GRE, and GMAT tests. Also, you can copy these seeded layouts to create additional values if needed.

To go to the Manage Standardized Tests landing page, from Student Central, click Search and search for **Standardized Tests**.

Here are some things you can do on this page:

- Search by test name or code or use the filters to search for a standardized test setup.
- Change a standardized test status to active or inactive.
- Create a new test score setting for any external testing agency with all the required details and add associated components and valid score ranges.
- Configure a predefined standardized test setup along with its associated components and valid score ranges.
- Create a new test instance of a predefined standardized test setup or duplicate the details and components as a template to create a new test.

Here is how to create a new test score setting:

1. From Student Central, click Search and search for **Standardized Tests**.
2. Click **Create Test Score Setting** and specify the required details, such as Start Date, Test Name, and so on.
3. On the Components tab, click **Add Row** to add associated components and valid score ranges.
4. Click the Active toggle button to activate the test setup.

You can use an external testing agency in the standardized test setup. To do that, you must first create a record for that testing agency in the Student Management External Organizations record, using the organization type of test provider.

Related Topics

- External Organizations

Curriculum Structures

Result Sets

Create result sets to support various types of measurement such as grades, units, grade points, level, and load.

Access the Manage Result Sets page: From Student Central, click **Search** and search for **Manage Result Sets**.

For example, you might create a letter grade result set in which a grade of A corresponds to these measurements:

- A numeric value of 90 to 100
- An outcome of pass
- A description of excellent
- 4.00 grade points

Select the **Enable earned units** checkbox to indicate that a particular result set, such as letter grade, earns credit for a student. For an audit result set, you might deselect the checkbox. If a student has an active academic program and enrolls in a course that uses the result set, the credits contribute to the student's period and cumulative statistics.

Student Statistics

The **Student statistics** checkbox supports the calculation of student statistic values and the storage of those values on a student's academic record. When the checkbox is selected, then on the Manage Result Types page, the result set can be associated with only result types for which the **Student statistics** checkbox is selected.

Result Value Options

Configure result value options. For each option, some default values appear, but you can edit them. An outcome is required for requisite compliance. Therefore, except for transcript display, you can't edit the outcomes values option.

Result Values

The data that you enter in the Result Value Options tab, such as column names and decimal places, influences the data that displays in the Result Values tab. Further define the result set values to be used by your institution. For example, for a letter grade result set, you might indicate that if a student achieves a score of between 70 and 79, the student receives a grade of C and an outcome of pass.

- Select the **Default** checkbox when an overlap exists between numeric value ranges. For example, in a letter grade result set, a fail outcome might equate to a score between 0 and 59 and a withdrawal outcome to a score between 0 and 0. If you select the **Default** checkbox for the score between 0 and 59, then a student with a score of 0 receives a fail outcome. An administrative user can change the outcome to withdrawal.
- Select the **Drop Result** checkbox to indicate that the result value can be used only when a student drops a course. For example, you might select the checkbox for a grade of W (Withdrawal).
- If you select the **Enable earned units** checkbox, then for each result within a set, use the **Earn Credit** field on the Result Values tab to indicate whether the result earns credit. For example, you might select **No** for a result with a fail outcome. If you deselect the checkbox, for an audit result set for example, **No** automatically displays in the field.

Rapid Implementation

You can also create and load result sets using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Result Types
- Rapid Implementation for Oracle Student Management Cloud
- Drop Schemes
- Create a Result Set
- Manage Student Results

Create a Result Set

This example shows how to create a result set to store on students' enrollment records.

1. Access the Manage Results Sets page: From Student Central, click **Search** and search for **Manage Result Sets**.
2. On the Manage Result Sets page, create a result set.

Here are the key decisions for this scenario.

Decisions to Consider	In This Example
What type of result set is this?	Letter Grade
Enable earned units?	Yes, to indicate that this result set earns credit for a student.

Summary of the Tasks

Create a result set:

1. Enter general information.
2. Enter result value options.
3. Enter result values.

Enter General Information

1. From Student Central, click **Search** and search for **Manage Result Sets**.
2. Click the **New** icon.
3. On the Create Result Set page, complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Name	Letter Grade
Description	Students are evaluated with the traditional method of A, B, C, D, F grading.
Enable earned units	Select
Start Date	01/01/18

Enter Result Value Options

On the Result Value Options tab, the **Enable outcomes values** check box is selected automatically. Except for transcript display, you can't edit the values because outcome is required for requisite compliance. Enter values for the other result value options. Indicate transcript display for the outcomes values option.

1. Select the **Enable numeric values** check box and complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Column Label	Score
Display values on transcript	Select

2. Select the **Enable text values** check box and complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Column Label	Grade
Display values on transcript	Select

3. Select the **Enable grade point values** check box and complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Maximum Grade Points	4
To Decimal	2
Display values on transcript	Select

4. For the outcomes option, select the **Display values on transcript** check box.
5. Select the **Enable description values** check box and complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Column Label	Description

Field	Value
Display values on transcript	Select

6. Click **Save**.

Enter Result Values

On the Result Values tab, some column headers display based on the setup on the Result Value Options tab. In this example, these column headers display: **Score From**, **Score To**, **Grade**, and **Description**. In the first row, enter values to define a letter grade of A.

1. Click the Result Values tab.
2. Click the **New** icon.
3. Complete the fields as shown in this table. Use the default values except where indicated.

   After you enter the first **Score From** value, a **Score To** value of **100** appears. This value is based on the **Maximum Numeric Value** of **100** on the Result Value Options tab.

Field	Value
Score From	90
Grade	A
Outcome	Pass
Grade Points	4
Description	Excellent
Calculate Grade Points	Select
Earn Credit	Yes

4. Click **Save**.
5. Continue to create other letter grades such as B and C as required.

Related Topics

- Result Sets

Result Types

A result type is an evaluative or statistical value that's tracked at the student level, such as a course result. When you create curriculum items, such as courses, you attach result types, and the associated result sets, to those items.

Access the Manage Result Types page: From Student Central, click **Search** and search for **Manage Result Types**.

Valid Curriculum Types

A valid curriculum type is selected automatically for each predefined result type. You can't delete the curriculum type. For example, the **TOTAL_EARNED_UNITS_CUMULATIVE** result type indicates the total number of credits earned by a student through enrollment at a specific academic level, such as undergraduate. A student's academic level is based on the academic level of the academic group to which the student is assigned. A valid curriculum type of **Academic Group** is therefore selected automatically for the result type.

> **Note:** To ensure a statistical result type is calculated, you must attach the result type to the academic group. Do this in the Results section of the Academic Group page. *Create Academic Groups*

You can add other valid curriculum types to predefined result types. When you create a result type, you must add at least one valid curriculum type.

Valid Result Sets

Add one or more valid result sets to a result type. For example, you might add a letter grade result set and a pass or fail result set to the course result type. When you create a course and add the course result type, you can select either or both result sets for the course.

If the **Student statistics** checkbox is selected for a result type, only result sets for which the **Student statistics** checkbox is selected on the Result Set page are available as valid result sets.

Rapid Implementation

You can also create and load result types using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Result Sets
- Rapid Implementation for Oracle Student Management Cloud
- Manage Student Results

Drop Schemes

Drop schemes influence what happens when a student drops a course section.

Access the Drop Schemes page: From Student Central, click **Search** and search for **Drop Schemes**.

Create as many drop schemes as you need. For example, you might create an undergraduate drop scheme and a graduate drop scheme. Or you might create one scheme for undergraduate and graduate combined if the same penalties apply to both.

You can associate a drop scheme with multiple academic institutions and academic levels.

Drop Attributes

The Drop Attributes tab indicates what happens on a student's enrollment record when the student drops a course.

You can see the predefined attributes and the predefined enrollment status to which each attribute is mapped. You can delete or update the predefined attributes. You can also add attributes, including user-defined attributes. To add an attribute, make sure that you tag it with Drop Attribute or Penalty Drop Attribute on the Academic Period Attribute Dates page.

Penalty Result

For a penalty drop attribute, you can select a result set and a result to indicate the penalty result, such as W (Withdrawal), that a student will receive when the student drops the course.

You can indicate a penalty result for multiple result sets. The available result sets are those for which the **Student statistics** checkbox is deselected in the Manage Result Sets page. For example, a grade point average result set isn't available. The available results are those for which the **Drop Result** checkbox is selected in the Result Values tab of the Manage Result Sets page. For example, a grade of W is available but not a grade of A.

Drop Processing

Here's what happens when a student drops a course section.

Drop Deadline	Student's Record
Last Date to Drop: Do Not Retain	The enrollment status is changed to **Deleted**. Courses with this status don't appear in the student facing UI or the administrative enrollment and roster UIs.
Last Date to Drop: Retain	The course is retained on the student's enrollment record with an enrollment status of **Dropped**.
Dropped: Penalty Result	The course is retained on the student's enrollment record with an enrollment status of **Withdrawn** and where relevant, a penalty grade such as W (Withdrawal).
Last Date to Drop: Greater Penalty	The course is retained on the student's enrollment record with an enrollment status of **Withdrawn** and where relevant, a penalty grade such as WF (Withdrawal: Fail).

Drop scheme processing depends on both the enrollment status setup on the drop scheme and the period attribute dates. The date when the enrollment impact of a drop action takes effect is based on the period attribute dates for the academic period that's selected for the course section.

If you set up different drop attribute dates on a particular course section, those dates take priority. For example, a particular course section has a last date to withdraw which is different from the last date to withdraw for other sections in that academic period. In this case, the drop process uses the date on the section to determine if and how a student can drop the section.

Optional: If you assign withdrawal or penalty grades on the Manage Drop Schemes page, use the Manage Result Sets page to create drop results for all the result sets that you use for course section results.

Rapid Implementation

You can also create and load drop schemes using the Rapid Implementation process.

Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Create and Manage Academic Period Attribute Dates
- Result Sets
- Rapid Implementation for Oracle Student Management Cloud

Curriculum Build Statuses

A build status refers to the life cycle of a curriculum item.

Create build statuses, using institutionally defined phrases, for use with curriculum items such as programs. An example is Open for Admission.

Access the Curriculum Build Statuses page: From Student Central, click **Search** and search for **Curriculum Build Statuses**.

Map a build status to a curriculum build status of **Active** or **Inactive**. The curriculum build status controls how a curriculum item is handled in the application and on externally facing search UIs. For example, map a program with a build status of **In Review** to a curriculum build status of **Inactive**. This means that the program isn't available in search pages for students and guests.

Curriculum Types

Associate a build status with one or more predefined curriculum types such as program. The build status is then available in the **Build Status** field when you create a curriculum item of that type. For example, in the **Build Status** field on the Create Program page. Enter a number in the **Sort Order** field to control the order in which the build status appears on the create page.

Rapid Implementation

You can also create and load curriculum build statuses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Curriculum Tags

Use curriculum tag and tag value combinations to influence what happens in student self-service pages.

Access the Manage Curriculum Tags page: From Student Central, click **Search** and search for **Manage Curriculum Tags**.

Use these tags so that guests and students can easily search for courses and programs:

- **Area of Study**, with a context of **Search**.
- **Featured Catalog**, with a context of **Marketing**.

If you don't use these tags, guests and students can search for courses and programs, but using only the keyword search.

Area of Study Tag

On the Browse Catalog self-service page, courses and programs display by area of study. The display is based on the tag values, such as Architecture and Business, that you add to the **Area of Study** tag. You must attach the **Area of Study** tag to courses and programs to ensure that guests and students can browse for them.

Featured Catalog Tag

On the student home page, courses and programs display by the **Popular** and **New** tag values that are predefined for the **Featured Catalog** tag. You can change the tag value names. For example, change **Popular** to **Trending**. You must attach the **Featured Catalog** tag to courses and programs to ensure that they display in the student home page.

Self-Service Display

Programs, courses, tags, and tag values must be active to display in self-service pages. Select the **Use Display Order** check box and enter a number in the **Display Order** field to assign the order in which tag values are displayed. If the check box is deselected, tag values display in alphabetic order.

Rapid Implementation

You can also create and load curriculum tags using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Add Administrative Controls for Programs

Program Types

Create program types such as major, minor, or certificate program. You can then select a program type when you create a program.

Access the Program Types page: From Student Central, click **Search** and search for **Program Types**.

Main Programs

Whether a program is a main program matters for managing student programs. For example, a student's program record must always include at least one main program for each academic group.

Here's how it works:

1. When you create a program type, indicate whether the program type is a main program. For example, indicate that a major is a main program.
2. When you create a program, select a program type. For example, create a Biology program and select major as the program type. The Biology major is then considered a main program for all downstream processes.

Rapid Implementation

You can also create and load program types using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Add Basic Information for Programs

Program Action Reasons

Create program action reasons which are available to administrative users who make changes to students' programs. For example, when a user ends a student's program, the user selects an action reason such as Withdrew or Program Change.

You can also use program action reasons for reporting purposes and to provide useful information to staff who review a student's record.

Access the Program Action Reasons page: From Student Central, click **Search** and search for **Program Action Reasons**.

Requirement Categories

Create requirement categories such as Required or Elective that are used to indicate, for example, how a course is incorporated into a program. These requirement categories are then available when you create course lists, academic groups, and programs.

Access the Requirement Categories page: From Student Central, click **Search** and search for **Requirement Categories**.

The **Total Units and Courses** requirement category is predefined. This category has a display sequence of **1** and therefore displays first on the Requirement Categories landing page. When you create your requirement categories, assign a display sequence number greater than **1**.

Rapid Implementation

You can also create and load requirement categories using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Create Academic Groups
- Create a Program Structure

Requisite Schemes

Create requisite schemes to map course outcomes or result set values to a predefined requisite status such as Satisfied.

This mapping influences what happens when a student tries to enroll in a course that has a prerequisite.

Access the Requisite Schemes page: From Student Central, click **Search** and search for **Requisite Schemes**.

When you create a requisite scheme, you can map the requisite status to a course outcome or to a result set value. With outcomes mapping, a student who completes the course with a passing grade meets the prerequisite. For example, an A, B, C, or D for a letter grade course outcome. However, the prerequisite requirement might be that the student must pass the course with a grade of C or better. In this case, you can use the results mapping option.

An administrative user can override requisite conditions at the time of enrollment and allow a student to enroll in a course even if the student doesn't meet the requisites. The administrative user sets the requisite status to **Satisfied overridden**. You're unlikely to include this status in a requisite scheme.

Requisite Scheme Mapping

Let's look at an example. You create an Undergraduate requisite scheme using the outcomes mapping option. You attach the scheme to course Art 101. Here's what happens when a student tries to enroll in course Art 202 for which Art 101 is a prerequisite.

Result Outcome for Art 101	Requisite Status for Art 101	Impact on Enrollment in Art 202
Pass	Satisfied	The student can enroll in Art 202.
Fail	Unsatisfied	The student doesn't meet the requisite conditions and can't enroll in Art 202.
In Progress	In Progress	A result outcome hasn't been finalized for Art 101. The student can enroll in Art 202 but sees a warning message indicating that they will be dropped from Art 202 if they don't successfully complete Art 101.

Result Outcome for Art 101	Requisite Status for Art 101	Impact on Enrollment in Art 202
		When the result for Art 101 is finalized, an administrative user manually assigns a requisite status of **Satisfied** or **Unsatisfied** to Art 101, which determines whether the student can enroll in Art 202.

Rapid Implementation

You can also create and load requisite schemes using the Rapid Implementation process.

Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Registry Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Result Sets
- Rapid Implementation for Oracle Student Management Cloud

Enrollment Action Reasons

Create action reasons and associate them with enrollment actions. Administrative users can then select an action reason when they make a change to students' enrollment records.

Access the Enrollment Action Reasons page: From Student Central, click **Search** and search for **Enrollment Action Reasons**.

Create action reasons for these enrollment actions:

- Drop scheduled course
- Withdrawal

For example, for the drop scheduled course action, create an action reason of unpaid fees.

A scheduled course is also known as a course section.

Curriculum Items

Overview of Courses and Course Sections

A course represents an element of teaching, learning or research within a specific subject area.

Courses are assigned a single academic organization ownership based on the subject you select when you create the course. This controls which organization has responsibility for the course, such as academic department.

You can add various data for a course such as result types, fees, identifiers, contacts, and requisites.

After you create a course, you can schedule the course sections, in which students enroll. You can create meeting information for a section so that students know when and where the section is available and the staff assigned to the section.

Ultimately, students can search and view their courses in the course catalog, program requirements, student schedule, and enroll in selected course sections.

Access the Courses page: From Student Central, click **Search** and search for **Courses**.

Access the Course Sections page: From Student Central, click **Search** and search for **Course Sections**.

Features to Set Up Before You Create Courses and Course Sections

You must set up some required features before you create courses and course sections.

Here's the list of required features:

Feature	More Information
Academic Period Attribute Dates	*Create and Manage Academic Period Attribute Dates*
Academic Periods	*Create and Manage Academic Periods*
Academic Subjects	*Academic Subjects*
Fees	Required for course fees. *Student Fees*
Manage Result Types	Required for grading. *Result Types*
Manage Result Sets	Required for grading. *Result Sets*
Academic Institutions	*Academic Institutions*
Campuses	*Campuses*
Academic Organizations	*Academic Organizations*
Academic Levels	*Academic Levels*

Feature	More Information
Time Zone Settings	*Time Zone Settings*

Here's a list of optional features you might set up before you create courses and course sections:

Feature	More Information
Manage Curriculum Tags	Required to display course cards on the Learning Catalog (New, Popular, Area of Study). *Curriculum Tags*
Student Management Identifiers	*Identifiers*
System Offices	Whether entities such as system offices are required depends on your institutional structure. *System Offices*
Requisite Schemes	Required if courses have prerequisites. *Requisite Schemes*
Academic Program	Required for program requisites and to assign course requirements. *Create Programs*
Buildings and Facilities	Required for course section meetings. *Buildings and Facilities*
Manage Academic Staff	Required for the addition of academic staff such as instructors to Contacts and Course Meeting Information. *Academic Staff Assignments*

There are also some lookups that are required before you can create courses and course sections. *Student Management Lookups*

Setup Feature	Lookup Code	More Information
Status	Course: ORA_HER_COURSE_STATUS Course Section: ORA_HER_SECTION_STATUS_CODE	Predefined values are available.
Course Types	ORA_HER_COURSE_TYPE	Required for the creation of meetings.

Here are the optional lookups:

Setup Feature	Lookup Code	More Information
Instructional Method	ORA_HER_CURRICULUM_FORMAT_CODE	Predefined values are available.
Descriptive Text Type	ORA_HER_MESSAGE_TYPE_CODE	Predefined values are available.

Create Courses

Create courses and then course sections in which students can enroll. You must create courses before you create course lists, academic groups, and programs.

> **Note:** Before you begin, review the list of features that you must set up before you can create courses. *Features to Set Up Before You Create Courses and Course Sections*

Here's how you begin to create a course:

1. Access the Courses page: From Student Central, click **Search** and search for **Courses**.
2. Click **Create Course**.

For step-by-step information about how to create a course, start with the Add Details for Courses topic. *Add Details for Courses*

Then follow the topics in order (one topic for each tab on the Courses page) until you finish creating the course.

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Details for Courses

When you create a course, enter details such as start period, type of units, and repeat option.

1. Access the Courses page: From Student Central, click **Search** and search for **Courses**.
2. Click **Create Course**.
3. Enter data in the Course Information section.
4. After you complete at least the required fields, click **Next**.
5. Enter data in the Repeats section.
6. After you complete at least the required field, click **Next**.
7. Enter data in the Units section.
8. After you complete at least the required fields, click **Next**.

9. Before you create the course, you can edit the Course Information, Repeats, and Units data.

   Note: After you create the course, you can't update the subject or course number.

10. When you're ready, click **Create**.

    The data you entered shows in the Details tab.

Note: When you create a course, the status is set to **Inactive**. You must complete all required fields and assign ownership and academic level before you come back to the Details tab and set the course to **Active**.

Course Information

Filter periods based on academic calendar to select a start or end period for the course.

For the start period, select the academic period in which the course is originally offered. You can select an end period. Or, if the course doesn't have a specific end date, select the **No end period** check box.

The course number is alphanumeric and is the course catalog reference.

You must enter a default enrollment capacity, but the value can be **0**. You can edit the capacity on the course section.

Select **Available in catalog** to allow users to search for the course in the Learning Catalog and Student Course Schedule.

Select **Allow save to wish list** to allow users to add the course to a wish list in the Learning Catalog.

You can assign tags to a course. *Curriculum Tags*

Click **Change** to add or change an image for the course. You can resize and center the image. The image displays on the course cards in the Learning Catalog and Student Course Schedule.

Repeats

Set up enrollment repeat checking to control what happens when a student tries to enroll in a previously completed course.

Repeat limits are enforced only on enrollment. For example, a student enrolls in a course and a matching entry is found in the student's enrollment history. This is considered a repeat of the course.

With repeat checking setup, you can indicate these things:

- Whether a student can repeat a course.
- How many units a student can earn for multiple completions of a course.

  The maximum number of units includes units earned in the original and repeat completions.
- How many times a student can repeat (complete) a course.

  The maximum number of completions includes the original and repeat completions.
- Whether a student can enroll in multiple sections of a course in the same enrollment period. For example, a student might be approved to take two different History-independent studies, each with a different supervisor and topic area title.

If you indicate the course is repeatable, these fields are required: **Total Units Allowed**, **Total Completions Allowed**, **Allow multiple enrollment**.

You must select an enrollment repeat option whether the course is repeatable or not. If the course isn't repeatable select **None**.

A student is considered to have completed a course if the student previously enrolled in the course (the student's enrollment status was Enrolled).

Select an enrollment repeat option to indicate how the enrollment process handles course repeats:

Enrollment Repeat Option	What Happens When a Student Tries to Enroll in a Previously Completed Course	Student Enrollment Outcome
None	Course repeat limits aren't enforced.	The student can repeat the course without restrictions.
Warning	The repeat checking routine runs based on the repeat setup for the course.	The student can enroll in the course but receives a warning message. For example, the student is reminded of their previous enrollment.
Error	The repeat checking routine runs based on the repeat setup for the course.	The student can't enroll in the course and receives an error message.

Units

Select fixed or variable units.

You can't override fixed units on the course section. You can override variable units on the course section.

You can indicate variable units for a course such as a minimum of 3 and a maximum of 4. Students can then select the number of units to enroll in. An example is a course where the units vary based on the amount of work a student must complete.

You can configure fixed course enrollment units and billing units with decimal values in addition to whole integers. You can configure up to 2 decimal places.

For required fields, you can enter **0**.

You can use **Contact Hours** or **Other Units** to record clock hours. These fields are for reporting only.

Next Step

Your next step is the Administrative Data tab. *Add Administrative Data for Courses*

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Administrative Data for Courses

When you create a course, enter administrative data such as course types, result types, and fees.

1. Click the Administrative Data tab.
2. Enter data in the Course Types section.

   If you select all available course types, **Add Row** becomes unavailable.
3. Click **Result Types**.
4. If the course is gradable, add at least one result set for Course Result Types.
5. If you add more than one result set, indicate which set is the default.
6. If relevant, add a midterm result type:
   a. In the Other Result Types section, select a result type of **Midterm Result**.
   b. Select a result set.

      You can select multiple result sets.
7. Click **Fees**.
8. Adding fees is optional. Here's how you add a fee:
   a. Click **Add Fee**.
   b. Search for the fee.
   c. Click the fee to add it to the **Current Selections** box.
   d. When you've completed your selections, click **Add**.
9. Click **Save**.

Course Types

Course types represent the component of a course such as lab, lecture, and tutorial. Only the course types that you add here are available for you to select when you create meetings for course sections.

Configure course types in Manage Student Management Lookups, with the lookup code ORA_HER_COURSE_TYPE. *Features to Set Up Before You Create Courses and Course Sections*

Instructional methods indicate how the course is offered, such as in person, online or blended. This isn't a required field. Only the methods you select here for the course are available for when you create course sections. If you don't select a method for the course, all methods are available when you create course sections.

Result Types

The result sets that are available to select are sets that are associated with the **Course Result** or **Midterm Result** type on the Manage Result Types page. *Result Types*

Only result types that you add here for the course are available for the course section.

Fees

You can attach fees such as a course fee or materials fee if required. Or you can attach fees when you create the course section.

Select **Pay to enroll** to indicate that students must pay for the course before they enroll in it, such as for Continuing Education enrollment and payment flows. Here's what happens in self-service:

- If you select this option and attach a fee for the course or course section, the fee shows in self-service pages.
- If you select this option and don't attach a fee for the course or scheduled course, **Free** shows in self-service pages.
- If you don't select this option, no fee information shows in self-service pages. An example is a course that's part of a traditional enrollment flow.

Next Step

Your next step is the Identifiers tab. *Add Identifiers for Courses*

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Student Fees
- Rapid Implementation for Oracle Student Management Cloud

Add Identifiers for Courses

When you create a course, you can add identifiers such as CIP codes.

Identifiers are optional. You can use identifiers to comply with regulatory and other reporting requirements.

The identifiers available for you to assign to a course are those that have been set up on the Identifiers page. *Identifiers*

1. Click the Identifiers tab.
2. Click **Assign Identifier**.
3. Search for the identifier.
4. Click the identifier to add it to the **Current Selections** box.
5. After you complete your selections, click **Update**.
6. Your next step is the Descriptive Text tab. *Add Descriptive Text for Courses*

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Descriptive Text for Courses

When you create a course, add descriptive text to provide course information for staff, students, and guests.

Descriptive text is optional. You can enter a course description which is visible in self-service pages, such as the catalog. You can enter other information such as course requirements or course materials.

1. Click the Descriptive Text tab.
2. Click **Add Descriptive Text**.
3. Select a type and then add your text.
   Configure descriptive text types in Student Management Lookups, using the lookup code ORA_HER_MESSAGE_TYPE_CODE. *Features to Set Up Before You Create Courses and Course Sections*
4. If you select **Display on Course**, the descriptive text displays for the course in self-service pages.
5. If you select **Display on Student Record**, the descriptive text displays on a student's enrollment record. For example, you might display information about course requirements but not course materials.
6. Select **Copy to course section** for the descriptive text to appear on the course section.
7. Click **Add**.

You can add multiple text types. You can also use the ellipsis to edit, reorder, or remove existing descriptions.

Your next step is the Contacts tab. *Add Contacts for Courses*

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Contacts for Courses

When you create a course, you can assign staff contacts to the course.

Assigning contacts is optional.

Staff are available to select as course contacts only if they've been configured as staff assignments in the Manage Academic Staff page. *Academic Staff Assignments*

1. Click the Contacts tab.
2. Click **Assign Contact**.
3. Search for a contact.
4. Click the contact's name to add them to the **Current Selections** box.

You can add multiple contacts.
5. Click **Update**.
6. Review the role for each course contact and change if necessary.
7. Select a primary contact for the course.
8. If you select **Display on Course**, information about the staff person, such as contact details, appears on the course in student self-service pages.
9. Your next step is the Ownership tab. *Add Ownership for Courses*

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Ownership for Courses

When you create a course, you must assign ownership and an academic level.

1. Click the Ownership tab.
2. Click **Assign Ownership**.
   You can assign only one entity type (an academic organization) as owner of a course. The available academic organization is the one that has been assigned to the academic subject.
3. Click the entity.
   It appears in the **Current Selections** box.
4. Click **Assign**.
5. Click the **Actions** ellipsis.
6. Click **Edit Academic Levels** to assign an academic level.
   You must assign an academic level when you create a course.
7. Click **Add Row** and select an academic level.
8. Click **Update**.

To add requisites for the course, go to the Requisites tab. *Add Requisites for Courses*

If you don't need to add requisites for the course and you've completed your course data entry, here are the final steps to create the course:

1. Go to the Details tab.
2. Change the status of the course to **Active**.

> **Note:** All required fields plus ownership and academic level data must be saved before you can set a course to active.

> **Note:** A course must be active before you can create course sections.

3. Click **Save**.

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Requisites for Courses

When you create a course, you can add requisites for the course.

Adding requisites is optional.

Note: Only course prerequisites and program requisites are currently supported.

If a course has both course and program prerequisites, a student must meet all prerequisites to enroll in the course.

When you add a course prerequisite, select a requisite scheme from those defined on the Requisite Schemes page. The mapping in the setup page influences what happens when a student enrolls in a course that has a prerequisite. *Requisite Schemes*

An example of a program prerequisite is an Economics major as a prerequisite for enrollment in an Economics course.

Here's how you add requisites:

1. Click the Requisites tab.
2. In the Course Prerequisites section, click **Add Course**.
3. Search for and click the courses that you want to add as prerequisites.

   Courses are displayed in the **Current Selections** box.
4. Click **Add**.

   If you add more than one course, the courses you add are treated as a list of courses which are all required to meet the prerequisite.
5. Select a requisite scheme (required).
6. Follow similar steps to add program requisites. A program requisite ensures that a student can't enroll in the course section if the student isn't associated with a program.

   If you add more than one program, a student needs to be associated with only one of the programs, not all programs, to satisfy the requisite requirement.
7. You can add a description about the requisites, which students can see in self-service pages.
8. After you finish adding your requisites, go back to the Details tab to complete creating the course.

Final Steps

Here are the final steps for creating a course:

1. Go to the Details tab.
2. Change the status of the course to **Active**.

   > **Note:** All required fields plus ownership and academic level data must be saved before you can set a course to active.

   > **Note:** A course must be active before you can create course sections.

3. Click **Save**.

Rapid Implementation

You can also create and load courses using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Copy and Delete Courses

You can copy a course and use it as a template to create other courses with similar attributes.

Access the Courses page: From Student Central, click **Search** and search for **Courses**.

To copy a course, click the **Duplicate** icon.

Use the error panel to view and manage multiple errors across fields and tabs. When you copy a course, the error panel appears when the first error occurs. Each subsequent error is added to the panel. In the error panel, click **View** to go to a particular error.

You can delete a course if it's not associated with a course section. To delete a course, first set the status to **Inactive** on the Details tab. *Add Details for Courses*

Create Course Sections

After you create courses, create course sections. Students can search for and enroll in course sections.

A course must be active before you create course sections.

> **Note:** Before you begin, review the list of features that you must set up before you can create course sections. *Features to Set Up Before You Create Courses and Course Sections*

Here's how you begin to create a course section:

1. Access the Course Sections page: From Student Central, click **Search** and search for **Course Sections**.
2. Click **Create Course Section**.

For step-by-step information about how to create a course, start with the Add Details for Course Sections topic. *Add Details for Course Sections*

Then follow the topics in order (one topic for each tab on the Course Sections page) until you finish creating the course section.

Rapid Implementation

You can also create and load course sections using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Details for Course Sections

When you create a course section, enter details such as academic period and enrollment capacity.

1. Access the Course Sections page: From Student Central, click **Search** and search for **Course Sections**.
2. Click **Create Course Section**.

   The **Next** button becomes available when all required fields are completed.
3. Enter data in the Course Information section.
4. After you complete at least the required fields, click **Next**.
5. The Units section is displayed.

   You can only update units for the course section if the unit value is **Variable** on the course setup.
6. Click **Create**.

   The data you entered shows in the Details tab.

Course Section Information

Filter periods based on academic calendar and then select the academic period in which the course section is offered.

Select a course number from the list of all active courses based on the subject and period selected.

You can edit the title and enrollment capacity.

Select **Available in catalog** to allow users to search for the course section in the Learning Catalog and Student Course Schedule.

You can assign tags to a course section. *Curriculum Tags*

Units

Fixed units defined for a course are used on the course sections. These units can include decimal values up to 2 decimal places in addition to whole integers. Students can enroll in and receive credit for these partial unit course sections.

How Academic Period Dates Impact Self-Service Pages

When you select an academic period for a course section, the dates associated with that period influence what happens in student self-service. *Create and Manage Academic Period Attribute Dates*

Here are some examples:

- Course sections display for students if today's date is within the **Search** start and end dates.
- Students can save a course section to their wish list if today's date is within the **Wish List** start and end dates.
- Assuming that the enrollment capacity hasn't been reached, students can add a course section to their cart if both these conditions are met:
  - Today's date is within the **Shopping Cart** start and end dates.
  - Today's date is within the **Enrollment** start and end dates.

Enrollment and Waitlist

The enrollment capacity data that you enter is used in validations that run when a student tries to enroll in a course section. The number in the **Total Enrollment** field changes as students enroll. Students see an **Available Seats** count in the Learning Catalog and in the Student Course Schedule.

Use the **Waitlist Capacity** field to set waitlist limits. The number in the **Waitlist Enrollment** field changes as administrators add students to the waitlist for a course section which is full.

Rapid Implementation

You can also create and load course sections using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Administrative Data for Course Sections

When you create a course section, enter administrative data such as course types, result types, and fees.

1. Click the Administrative Data tab.
2. Enter data in the Course Types section:
   - Add only the course types that relate to this specific course section.
   - To create meetings, you must add course types here.
   - You can only add course types here if you added them during course setup.

3. Click **Result Types** if the course section is gradable.
4. Select **Gradable**.
5. Enter data in the Results Types section:
    - Add only the result types that relate to this specific course section.
    - To grade the course, you must add result types here.
    - You can only add result types here if you added them during course setup.
6. If relevant, use the Other Result Types section to add midterm result types.

    You can only add result types here if you added them during course setup.
7. Click **Fees**.
8. Adding fees is optional. Course section fees aren't tied to the fees setup on the course.

    Here's how you add a fee:

    a. Click **Add Fee**.
    b. Search for the fee.
    c. Click the fee to add it to the **Current Selections** box.
    d. When you've completed your selections, click **Add**.
9. Click **Section Attribute Dates** to add attribute dates for this section.

    If you add drop attribute dates, the drop process uses these dates. For example, a particular course section has a last date to withdraw which is different from the last date to withdraw for other sections in the academic period. In this case, the drop process uses the date on the section to determine if and how a student can drop the section.

    If drop attribute dates don't exist for a course section, the drop process uses the academic period attribute dates. *Drop Schemes*

    Only drop attribute dates are used. Other attribute dates on the section (such as First Date to Enroll, Last Date to Enroll) aren't used during the enrollment process.
10. Click **Save**.

Course Types

Instructional methods indicate how the course is offered, such as in person, online or blended. This isn't a required field. If you don't select methods on course setup, all methods are available when you create course sections. If you select methods on the course setup, only those methods are available when you create course sections.

Fees

An academic period fee is calculated based on the summarized billing units of courses in which a student is enrolled for a specific reporting academic period. You can exclude the billing units for a course from the calculation.

Rapid Implementation

You can also create and load course sections using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Descriptive Text for Course Sections

When you create a course section, enter descriptive text to provide course information for staff, students, and guests.

1. Click the Descriptive Text tab.
2. If **Copy to Section** is selected for the course, text is copied from the course to each course section. You can edit, remove, and reorder the text descriptions.
3. To add new text, click **Add Descriptive Text**.
4. If you select **Display on Course**, the descriptive text displays in self-service pages.
5. If you select **Display on Student Record**, the descriptive text displays on a student's enrollment record.
6. Click **Add**.

Note: Course section descriptive text doesn't currently display in the Schedule Options page in the Learning Catalog and Student Course Schedule.

Rapid Implementation

You can also create and load course sections using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Add Ownership for Course Sections

When you create a course section, view the ownership details.

The ownership details, including academic organization and academic level, appear by default based on the course setup. You can't change these details for a course section.

1. Click the Ownership tab.
2. View the ownership details.

Add Requisites for Course Sections

When you create a course section, you can add requisites.

Course prerequisites and program requisites that display for the course section are inherited from the course.

Click **Override** to set up requisites specific to a course section that are distinct from the inherited requisites.

The **Description** data is also inherited from the course. When you override course prerequisites or program requisites, you can edit the description.

Here's how the override is used when the enrollment engine checks if a student has met a requisite:

- If **Override** is on, the process uses the section requisites instead of the course requisites.
- If **Override** is off, the process uses the course requisites.

Requisite Schemes

Add Meeting Information for Course Sections

When you create course sections, add meeting information such as date and location.

> **Note:** Before you can create a meeting, you must enter and save at least one course type for the course section. *Add Administrative Data for Course Sections*

1. Click the Meeting Information tab.
2. Click **Add Meeting**.
3. Select a meeting type.
   Values are available based on the course types on the course setup.
4. Enter a start and end date.
   To create a one-day meeting, take these steps:
   a. Select the date of the meeting as the start date. For example, 4/6/2023.
   b. Select the date of the next day as the end date. For example, 4/7/2023.
   c. Enter the meeting day, such as Thursday.
   d. Save the meeting.
      The meeting is displayed with a start and end date of 4/6/2023.
5. If relevant, enter a start and end time and a time zone.
6. If you select **All Day**, the time displays as **12.00AM – 11.59PM**.
7. Select the meeting day or days.
8. Click **Save**.
   You're taken back to the Meeting Information landing page where you can view meeting details.
9. To view meeting dates, click the **Actions** ellipsis and then click **Edit Meeting Information**.
   The individual meeting dates are displayed at the end of the page.
10. To change the meeting dates, edit the start and end dates and click **Update**.
11. Click **Cancel** to return to the landing page.
12. To select a building and facility, click **Assign Building and Facility** or use the ellipsis.
13. Select a building and facility and click **Save**.
14. To select staff, click **Assign Staff** or use the ellipsis.
15. Click the staff person's name to add them to the **Current Selections** box.
16. Click **Next**.
17. If relevant, update the role type and select a primary instructor.
18. If you select **Display on Section**, information about the staff person, such as contact details, appears on the course section in student self-service pages.
19. Click **Save**.

Rapid Implementation

You can also create and load course sections using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Copy and Delete Course Sections

You can copy a course section and use it as a template for creating other course sections with the same type of data.

Access the Course Sections page: From Student Central, click **Search** and search for **Course Sections**.

To copy a course section, click the **Duplicate** icon.

Use the error panel to view and manage multiple errors across fields and tabs. When you copy a course section, the error panel appears when the first error occurs. Each subsequent error is added to the panel. In the error panel, click **View** to go to a particular error.

You can delete a course section. First set the status to **Canceled** on the Details tab. *Add Details for Course Sections*

You can't delete a course section if students are enrolled in it.

Features to Set Up Before You Create Course Lists

Set up these required features before you create course lists.

Feature	More Information
Academic Institutions	*Academic Institutions*
Campuses	*Campuses*
Academic Organizations	*Academic Organizations*
Academic Levels	*Academic Levels*
Courses	*Create Courses*

Before you can configure course list ownership, you must define relationships between entities (system offices, institutions, campuses, academic organizations).

Create Course Lists

Create a course list to prescribe a list of courses that satisfy an academic requirement, such as the core requirements for a major. You use course lists when you create academic groups and programs.

> **Note:** Before you begin, review the list of features that you must set up before you create course lists. *Features to Set Up Before You Create Course Lists*

Here's how you create a course list:

1. Add details.
2. Assign ownership.
3. Add courses.

Access the Course Lists page: From Student Central, click **Search** and search for **Course Lists**.

Add Details

1. Click **Create Course List**.
2. Enter a name, title, and code.
3. You can enter an optional description.
4. Click **Create**.

   The data you entered shows in the Details tab.

> **Note:** When you create a course list, the status is set to **Inactive**. You must complete all required fields and assign ownership and academic level before you can set a course list to **Active**.

Assign Ownership

1. Click the Ownership tab.
2. Click **Assign Ownership**.

   You can assign only one entity type (an academic organization) as the owner.
3. Click the entity.

   It appears in the **Current Selections** box.
4. Click **Assign**.
5. Click the **Actions** ellipsis.
6. Click **Edit Academic Levels** to assign an academic level.

   You must assign an academic level when you create a course list.
7. Click **Add Row** and select an academic level.
8. Click **Update**.

Add Courses

1. Click the Courses tab.
2. You can add an optional description.

3. Click **Add Course Items**.
4. Search for courses and course lists and click to select them.

   The selections you make appear in the **Current Selections** box.
5. Click **Add to List**.
6. To group courses, select the courses and click **Create Group**.
7. To edit a group name and add or edit a description, click the ellipsis for the group and click **Edit Details**.
8. You can use various other actions in the ellipsis menu to manage your course list requirements.
9. Click **Save**.
10. When you're ready, you can set the course list to **Active**.

Note: You must complete all required fields and assign ownership and academic level before you can set a course list to **Active**.

Rapid Implementation

You can also create and load course lists using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Requirement Categories
- Rapid Implementation for Oracle Student Management Cloud

Create Academic Groups

Academic groups are required for building programs. A program is usually owned by an entity such as a college or faculty. These entities are academic groups.

When you add a program to a student's record, you automatically assign the student to an academic group.

Academic group setup is also required for calculating student statistics. *Result Types*

An academic group can also be a container for particular requirements such as college-level requirements. For example, in addition to a program major, students must complete requirements set by the college, such as general education units.

Access the Academic Groups page: From Student Central, click **Search** and search for **Manage Curriculum**. Then click **Actions**.

Structure

In the Academic Group Requirements section, you can enter free-form content, which is available to students in self-service pages.

When you build your academic structure you can add courses and course lists.

The Requirement Category and Connectors features are works-in-progress and not yet ready to use.

Parameters

You can indicate the minimum and maximum units and number of courses for requirement categories, such as the maximum number of elective units. You must enter parameters for the predefined **Total Units and Courses** category, which displays automatically.

Results

To ensure a statistical result type is calculated, you must add the result type to the academic group. *Result Types*

Only result types associated with the valid curriculum item type of academic group are available. Define result types on the Manage Result Types page.

Rapid Implementation

You can also create and load academic groups using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Create Programs
- Requirement Categories
- Rapid Implementation for Oracle Student Management Cloud
- Create Course Lists

Overview of Programs

Use the Create Program flow to create programs of study such as a certificate program, a major, or a minor.

To create a program, enter this data:

- Initial setup data such as build status
- Basic information
- Attributes
- Administrative controls
- Descriptive text
- Requirements and parameter

You can also create programs using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Create Programs
- Rapid Implementation for Oracle Student Management Cloud

Create Programs

Create programs of study such as a certificate program, a major, or a minor.

Access the Programs page: From Student Central, click **Search** and search for **Manage Curriculum**.

Before you create programs, create courses, course lists, and academic groups.

Build Status

Select a build status, such as **Open for Admission**, from the statuses you defined on the Curriculum Build Statuses page. When you select a build status, a value of **Active** or **Inactive** appears in the **Program Status** field, based on the setup mapping. Only active programs are available in the self-service catalog.

Summary and Structure

Continue to create the program using the Summary and Structure tabs. This setup is discussed in other program topics.

Rapid Implementation

You can also create and load programs using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Program Types
- Curriculum Build Statuses
- Display Curriculum Item Images
- Rapid Implementation for Oracle Student Management Cloud
- Control Data Access by Role

Add Basic Information for Programs

When you create a program, enter information such as program type and campus.

You can add one or more campuses for a program. You can attach an image for the program to display in self-service pages.

Access the Programs page: From Student Central, click **Search** and search for **Manage Curriculum**.

Program Type and Main Program

Whether a program is a main program matters for managing student programs. For example, a student's program record must always include at least one main program for each academic group.

Here's how it works:

1. When you create a program type, indicate whether the program type is a main program. For example, indicate that a major is a main program.
2. When you create a program, select a program type. For example, create a Biology program and select major as the program type. The Biology major is then considered a main program for all downstream processes.

Note: To ensure that the Academic Planner is available in student self-service, the program must be a main type program.

Rapid Implementation

You can also create and load programs using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Rapid Implementation for Oracle Student Management Cloud
- Overview of Programs
- Program Types

Add Attributes for Programs

When you create a program, add attributes such as academic group and credentials.

Access the Programs page: From Student Central, click **Search** and search for **Manage Curriculum**.

Academic Level

Select an academic level for the program. For example, create a Biology major at the Undergraduate level.

Academic Group

Select an academic group for the program. For example create a Biology major in the College of Natural Sciences. In a student's program record, programs are organized by academic group. To maintain consistency across program offerings, you can select only an academic group with an academic level that matches the program level.

You can associate a main program with only one academic group. You can associate a program that isn't a main program with more than one academic group or make it available to all academic groups.

Credentials

You can add one or more credentials for a program. Credentials are degrees, diplomas, or certificates that students can earn after successful completion of their study. Credentials are recorded on a student's academic record.

The credential formal name is defined using the Credentials page, but you can edit the name when you add a credential to a program. For example, if the formal name is Bachelor of Arts, you might change it to Bachelor of Arts in History when you add the credential to a History program.

Sometimes, credentials are awarded to students as they proceed through their program of study as well as on completion of the program. For multiple credentials, you must select at least one final credential to indicate that a student completes the program when the student achieves this credential. You can add more than one final credential to a program, such as Bachelor of Arts and Bachelor of Science. For programs with multiple credentials, use the **Display Sequence** field to order credentials. This order is used in credential search and summary pages.

Rapid Implementation

You can also create and load programs using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Academic Levels
- Create Academic Groups
- Academic Credentials
- Add Basic Information for Programs

Add Administrative Controls for Programs

When you create a program, add administrative controls such as whether admission is required and how programs display in self-service pages.

Access the Programs page: From Student Central, click **Search** and search for **Manage Curriculum**.

Select **Available in search** and **Allow save to wish list** to indicate that guests and students can search for a program and add it to their wish list from self-service pages.

Use the **Student Level Determination** field to determine a student's level within a program, based on the student's total number of completed and enrolled units. Student level and load are calculated based on enrollment units. Statistics are stored on the Student Results page. To ensure level and load calculation occurs, you must also create level and load result sets and attach them to result types. Use the Manage Result Sets and Manage Result Types pages.

Different enrollment models have different enrollment and payment processes. For example, Continuing Education students might pay before they enroll in a course, using a typical internet shopping cart experience. For institutions that use a traditional enrollment model in which students plan their courses based on program requirements, students might enroll in courses first and be billed later. Select an enrollment mode of **Shopping cart** or **Scheduler** and a payment mode of **Pay to enroll** or **Bill later**. These fields are available and required only for main programs. Use the Program Types page to indicate main programs.

Note: To ensure that the Academic Planner is available in student self-service, select an enrollment mode of **Scheduler** for a main type program.

Admission Controls

Indicate how students are admitted to a program.

Select the **Admission required** check box to identify a program as one to which students must be admitted before they begin study.

In Self-Service, a student applying to a traditional program can click the **Apply** button to submit an online application if these things are true:

- In the program setup, the program is a main program (based on program type) and the **Admission required** check box is selected.
- In Admissions Form Inventory, a form is published for the program.

Select the **Auto admit** check box to identify a program as one to which students can be automatically admitted when they submit a simple application. For example, a Continuing Education program might not have formal admission requirements such as proof of a high school diploma or completion of a bachelor's degree.

In Self-Service, a Continuing Education student can click the **Apply** button to submit a simple online application and be automatically admitted to a program if these things are true:

- In the program setup, the program is a main program (based on program type) and the **Auto admit** check box is selected.
- In Admissions Form Inventory, a form is published for the program.

Learning Packages

You can set up a program so that students pay a flat fee for the program and then enroll in the courses that belong to the program. Students don't pay for individual courses.

Complete these steps:

1. Select the **Admission required** check box.
2. Select the **Pay to access** check box.
    - In the **Enrollment Mode** field, **Shopping cart** is automatically selected and you can't edit the field.
    - In the **Payment Mode** field, **Pay to enroll** is automatically selected and you can't edit the field.
3. Add a fee for the program.

Tags

Add curriculum tags to programs to influence what happens in self-service pages:

- You must add an **Area of Study** tag and value such as **Art** or **Business** to a program to ensure that guests and students can browse for the program. Programs are listed by area of study in the catalog.
- You must add a **Featured Catalog** tag and value to a program to ensure the program displays in categories such as **New** or **Popular** on the guest and student home page.

If you don't add curriculum tags, guests and students can search for programs, but using only the keyword search.

Add the **Group Manager Eligible** tag and select **Yes** to indicate that a group manager can apply to this program on behalf of a student.

Staff

You can add staff for the program.

- Staff are available based on the Manage Academic Staff setup.
- Role access:
    - Select **Grader** to identify staff members who can access the grade roster and post grades.
    - Point of contact information is used on externally facing user interfaces such as browse catalog.
- Select the **Primary** check box to indicate the primary person for the program.
- If you select the **Back Office Only** check box, information about the staff person, such as contact details, doesn't appear in student self-service pages.

Rapid Implementation

You can also create and load programs using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Overview of Programs
- Curriculum Tags
- Rapid Implementation for Oracle Student Management Cloud
- Enable Program Application by Group Manager

Create a Program Structure

When you create a program, add requirements and parameters to create a program structure.

Access the Programs page: From Student Central, click **Search** and search for **Manage Curriculum**.

Requirements

In the Program Requirements section, you can enter free-form content, which is available to students in self-service pages.

When you build your program structure you can add courses and course lists. For example, you might add a course list for a major or minor.

The Requirement Category and Connectors features are works-in-progress and not yet ready to use.

Parameters

You can indicate the minimum and maximum units and number of courses for requirement categories, such as the maximum number of elective units. You must enter parameters for the predefined **Total Units and Courses** category, which displays automatically.

Rapid Implementation

You can also create and load programs using the Rapid Implementation process. Use these tasks in the Setup and Maintenance work area, Student Management offering:

- Create Curriculum Items Configuration in Spreadsheet
- Upload Curriculum Structures in Spreadsheet

Related Topics

- Requirement Categories
- Overview of Programs
- Rapid Implementation for Oracle Student Management Cloud
- Create Course Lists

Edit Programs

After you create and save a program, you can edit the program in various ways. For example you can create a new version of the program.

Access the Programs page: From Student Central, click **Search** and search for **Manage Curriculum**.

When you access an existing program, the page opens in view mode. Here are the actions you can take:

- Insert Record
- Correct Record
- Delete Record
- End Date

Insert Record

Select this action to create a new version of an existing program.

Usually, you use the **Insert Record** action for a change that will be effective in the future, such as different program requirements for an academic year. You can change the effective date to any date later than the date of the existing maximum effective dated row.

In rare cases, you might insert a row between two existing rows to correctly represent the history of the program, such as after conversion. If you insert a new record between two existing rows, you can change the effective date of the new row. The effective date for the new row must meet both these criteria:

- Be earlier than the effective date of the row above (if a row exists).
- Be later than the effective date of the row below.

Correct Record

Select this action to edit an existing program row.

To edit the effective date and the data for the row:

1. Edit the effective date: Click the edit icon to access the Edit Program Effective Date page. If multiple effective dated rows exist, the effective date that you enter for the edited row must meet both these criteria:
    - Be earlier than the effective date of the row above (if a row exists).
    - Be later than the effective date of the row below.
2. Edit the program data. When you select the **Correct Record** action, the various sections of the page such as Attributes and Administrative Controls become available for editing.

Delete Record

Select this action to delete an existing program row.

End Date

Select this action to end a program.

The **End Date** action is available only on the maximum effective dated row for the program. Select the action and enter an end date for the program. After you end a program, actions are available for the program, but with some restrictions:

- **Insert Record**: The effective date of the new row must be earlier than or the same as the program end date.
- **Correct Record**: The effective date of the maximum effective dated row must be earlier than the program end date.
- **Delete Record**: No restrictions.
- **End Date**: Remains restricted to the maximum effective dated row (a user can update the program end date).

Display Curriculum Item Images

Manage the display of images for curriculum items such as courses and programs in self-service pages such as the catalog.

1. On the home page, click Setup and Maintenance.
2. Click the Tasks panel tab.
3. Click **Search**.
4. Search for **Manage Administrator Profile Values**.
5. In the **Profile Option Code** field, enter **HER_CURRICULUM_IMAGES** and click **Search**.
6. In the **Profile Value** field, if you enter **Y** and:
    - A curriculum item image exists, the image displays in self-service pages.
    - A curriculum item image doesn't exist, the placeholder image displays in self-service pages.

    If you enter **N**, no curriculum item images display in self-service pages even if images exist.

Data Access

Manage Access to Course Data

Use data profiles to control user access to course data. This ensures that a registrar and academic coordinator can create, view, edit and search for only courses that they're responsible for.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user. Some data profiles are predefined for the business objects. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

You can control user access to viewing and editing courses by these attributes:

- Institution
- Academic Level
- Academic Organization
- Subject
- Campus

You can control user access to creating courses by these attributes:

- Subject
- Campus
- Academic Level

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

Manage Courses

Create data profiles for the Course business object. You can also use predefined data profiles. These data profiles impact the access of a user to manage and view course data in the Curriculum, Course UI:

- A Course data profile, with the Manage Academic Course privilege, controls which courses a user can manage. For example, a user can search for, view, and update only Undergraduate level Art courses.
- A Course data profile, with the View Academic Course privilege, controls which courses a user can search for and view only.

Create Courses

You control access to creating courses by securing the prompts that are used to create a course. In the Manage Application Access task, create a data profile for the business object that relates to the prompt. You can also use predefined data profiles.

Here's an example. For the subject prompt, you create a data profile for the Academic Subject business object. When you assign the profile to a user, you select the predefined privilege Create Academic Course on Academic Subject. You select the subject Art. This means that when a user creates a course in the Curriculum: Courses UI, Art is the only value available in the **Identifier** (Select subject) field.

Here are the business objects and related privileges that you can use for your data profiles.

Business Object	Privilege
Academic Subject	Create Academic Course on Academic Subject
Institutional Campus	Create Academic Course on Institutional Campus
Academic Level	Create Academic Course on Academic Level

Related Topics

- Control Data Access by Role

Manage Access to Academic Group Data

Use data profiles to control user access to academic group data. This ensures that a registrar and academic coordinator can create, view, edit and search for only academic groups that they're responsible for.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user. Some data profiles are predefined for the business objects. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

You can control user access to viewing and editing academic groups by these attributes:

- Institution
- Academic Level
- Academic Organization
- Academic Group

You can control user access to creating academic groups by the same list of attributes except for academic group.

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

Manage Academic Groups

Create data profiles for the Academic Group business object. You can also use predefined data profiles. These data profiles impact the access of a user to manage and view academic group data in the Curriculum, Academic Groups UI:

- An Academic Group data profile, with the Manage Academic Group privilege, controls which academic groups a user can manage. For example, a user can search for, view, and update only Undergraduate level academic groups.
- An Academic Group data profile, with the View Academic Group privilege, controls which academic groups a user can search for and view only.

Create Academic Groups

To control which academic groups a user can create, use data profiles to secure the prompts that are used to create a group. In the Manage Application Access task, create a data profile for the business object that relates to the prompt. You can also use predefined data profiles.

Here's an example. For the Academic Level prompt, you create a data profile for the Academic Level business object. When you assign the profile to a user, you select the predefined privilege Create Academic Group on Academic Level. You select the Undergraduate and Professional academic levels. This means that when a user creates an academic group in the Curriculum: Academic Groups UI, the user can select only **Undergraduate** or **Professional** in the **Academic Level** field.

Here are the business objects and related privileges that you can use for your data profiles.

Business Object	Privilege
Academic Institution	Create Academic Group on Academic Institution
Academic Organization	Create Academic Group on Academic Organization
Academic Level	Create Academic Group on Academic Level

Related Topics

- Control Data Access by Role

Manage Access to Program Data

Use data profiles to control user access to program data. This ensures that a registrar and academic coordinator can create, view, edit and search for only programs that they're responsible for.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user. Some data profiles are predefined for the business objects. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

You can control user access to viewing and editing programs by these attributes:

- Institution
- Campus
- Academic Level
- Academic Organization
- Academic Group
- Program

You can control user access to creating programs by the same list of attributes except for program.

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

Manage Existing Programs

Create data profiles for the Program business object. You can also use predefined data profiles. These data profiles impact the access of a user to manage and view program data in the Curriculum, Programs UI:

- A Program data profile, with the Manage Academic Program privilege, controls which programs a user can manage. For example, a user can search for, view, update, and delete only Undergraduate Humanities programs.
- A Program data profile, with the View Academic Program privilege, controls which programs a user can search for and view only.

Create Programs

You control access to creating programs by securing the prompts that are used to create a program. In the Manage Application Access task, create a data profile for the business object that relates to the prompt. You can also use predefined data profiles.

Here's an example. For the Academic Organization prompt, you create a data profile for the Academic Organization business object. When you assign the profile to a user, you select the predefined privilege Create Academic Program on Academic Organization. You select an academic organization, such as Humanities Division. This means that when the user creates a program, Humanities Division is the only value available in the **Academic Organization** field.

Here are the business objects and related privileges that you can use for your data profiles.

Business Object	Privilege
Academic Institution	Create Academic Program on Academic Institution
Academic Organization	Create Academic Program on Academic Organization
Institutional Campus	Create Academic Program on Institutional Campus
Academic Level	Create Academic Program on Academic Level
Academic Group	Create Academic Program on Academic Group

Related Topics

- Control Data Access by Role

Manage Access to Student Programs

Use data profiles to control user access to student programs. You can control which programs a user can add to a student's record. And you can control which of a student's programs a user can edit.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user.

Control access to student programs by these attributes:

- Institution
- Campus
- Academic Level
- Academic Organization
- Academic Group
- Program

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

Create data profiles for these business objects:

- Program
- Student Program

You can also use predefined data profiles. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

The data profiles impact the access of a user to data in the Learners, Programs UI:

- A Program data profile, with the Create Student Program Enrollment privilege, controls which programs a user can select when adding a program to a student's record. For example, a certain set of users can add only Undergraduate programs in the College of Liberal Arts.
- A Student Program data profile, with the Manage Student Program Enrollment privilege, controls which of a student's programs a user can edit.

Related Topics

- Control Data Access by Role

Manage Access to Student Course Enrollment

Use data profiles to control user access to student course enrollment.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user.

Control access to course enrollment by restricting the selection of courses using these attributes:

- Institution
- Campus
- Academic Level
- Academic Organization
- Subject (available only for the Scheduled Course business object)

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

Create data profiles for these business objects:

- Scheduled Course

- Student Scheduled Course

You can also use predefined data profiles. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

The data profiles impact the type of student enrollment data a user can access in the Learners, Enrollment UI:

- A Scheduled Course data profile, with the Create Student Course Enrollment privilege controls the list of scheduled courses that a user can select when enrolling a student. For example, assign a Scheduled Course data profile to Humanities departmental administrators. The Academic Level is Undergraduate and the Academic Organization is Humanities Division. The privilege is Create Student Course Enrollment. In the Learners Enrollment UI, a Humanities departmental administrator can add only Undergraduate Humanities Division scheduled courses to a student's enrollment record.
- A Student Scheduled Course data profile, with the Manage Student Course Enrollment privilege, controls which scheduled courses a user can view and drop for a student.

Related Topics

- Manage Access to Student Results
- Control Data Access by Role

Manage Access to Student Results

Use data profiles to control user access to student results data.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user.

Control access to student results using these attributes:

- Institution
- Campus
- Academic Level
- Academic Organization

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

Create data profiles for these business objects:

- Student Result
- Student Scheduled Course

You can also use predefined data profiles. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

The data profiles impact the type of student enrollment data a user can access in the Learners, Results UI:

- A Student Result data profile, with the Manage Student Course Result privilege, controls which results data a user can view for a student in Learners, Student Results (Courses tab). It does this by controlling whether a user can see the Result row for a course, regardless of whether a grade exists. It also controls the ability to add and update result notes.
- A Student Scheduled Course data profile, with the Create Student Course Result privilege, controls which results a user can add and update for a student in Learners, Student Results (Courses tab). It does this by controlling whether a user can access the **Result** link, within the Result row.

To add and update a result, a user needs both results profiles: Student Result and Student Scheduled Course.

Related Topics

- Manage Access to Student Course Enrollment
- Control Data Access by Role

Manage Access to Student Credentials

Use data profiles to control user access to student program credentials.

Use the Manage Application Access task to create a data profile based on a business object. Then assign that profile, with the relevant privilege, to a role or user.

Control access to student program credentials by these attributes:

- Institution
- Campus
- Academic Level
- Academic Organization
- Academic Group
- Program

You can control access by one attribute, multiple attributes, or all attributes. You can control access for specific roles and for individual users.

You can create data profiles for these business objects:

- Student Program
- Student Credential

You can also use predefined data profiles. On the Data Profiles page, a value of **Yes** shows in the **Predefined** field.

The data profiles impact the type of program credential data a user can access in the Learners, Student Credentials UI:

- A Student Program data profile, with the Create Student Credential on Student Program privilege, controls which programs a user can select from when adding a credential to a student's record. For example, a certain set of users can add credentials for only Undergraduate programs in the College of Liberal Arts.
- A Student Credential data profile, with the Manage Student Credential privilege, controls which program credential data a user can view and edit in a student's record.

Related Topics

- Control Data Access by Role

Manage Access to Waitlist Information

Use data profiles to control user access to waitlist information.

Control which users have security permissions to add students to waitlists, remove students from waitlists, enroll students from waitlists, update student positions on waitlists, and view student waitlist positions. For example, you might allow a user to view the students' positions on a waitlist but not allow the user to reorder students' positions.

In the Manage Application Access task, create a data profile and assign the profile to a role or user. Then control the access to waitlist information by granting users access to these permissions:

- **View Waitlist Position**: The user can view a student's waitlist position. For example, an instructor can see the waitlist position of waitlisted students when viewing the course roster. A student advisor can see the student's waitlist position when looking at the course section for which the student is waitlisted.
- **Add Students to Waitlist**: The user can add a student to a waitlist. All application administrators and registrars should have this ability. The institution might optionally add it for instructors and student advisors.
- **Remove Students from Waitlist**: The user can remove a student from a waitlist. All application administrators and registrars should have this ability. The institution might optionally add it for instructors and student advisors.
- **Enroll Students from Waitlist**: The user can enroll a student in a course from the course waitlist. All registrars should have this ability. The institution might optionally add it for instructors and student advisors.
- **Update Waitlist Position**: The user can change a student's waitlist position number. All registrars should have this ability. The institution might optionally add it for instructors.

Related Topics

- Control Data Access by Role
- Rosters Management
- Add a Student to a Waitlist

15 Student Financials

Overview of Student Financials Implementation

With Student Financials, you can manage student receivables, billing, and payment collection. Your staff and students can find and use the financial information they need to make critical decisions.

Your staff can manage student accounts by creating charges, accepting payments, processing refunds, and generating receipts.

You can implement Student Financials if you have an Application Implementation Consultant job role.

To implement Student Financials, perform the setup tasks in the order they appear in the table. Alternatively, you can use the Rapid Implementation process to quickly upload setup data that's required in the implementation. To perform the tasks, in the Setup and Maintenance work area, use these options:

- Offering: Student Management
- Functional Area: Student Structures

Sequence	Task	Navigation	Description
1	Manage Student Financials System Options	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Define level transaction and receipt numbering, accounts receivable values, and self-service payment options.
2	Manage Miscellaneous Categories	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Set up miscellaneous categories of fees and group fees within them.
3	Manage Student Financials Academic Periods	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Set up academic period defaults and assign an academic period to charges, using start and end dates.
4	Manage Adjustment Calendars	In the Setup and Maintenance work area, use: • Offering: Student Management	Set up adjustment calendars to enable subsequent creation of adjustment schedules.

Sequence	Task	Navigation	Description
		• Functional Area: Student Structures	
5	Manage Due Date Calendar	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Set up due dates related to adjustment calendars.
6	Maintain Discounts	From Student Central, search for **Discounts** .	Create and manage discounts used throughout a business unit.
7	Manage Academic Period Fees	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Create and manage fees that enable a bursar to calculate a student's fee based on the summarized billing units for a reporting academic period.
8	Manage Fee Groups	From Student Central, search for **Fee Groups** .	Create and edit fee groups containing a set of academic period fees for a reporting academic period.
9	Manage Fee Group Default Settings	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Assign a default fee group to an academic level.
10	Manage Adjustment Schedules	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Create and edit adjustment schedules.
11	Manage Due Date Schedule	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Set up due dates related to adjustment schedules.
12	Manage Curriculum Fees	In the Setup and Maintenance work area, use:	Set up course fees and scheduled course fees.

Sequence	Task	Navigation	Description
		• Offering: Student Management • Functional Area: Student Structures	A scheduled course is also known as a course section.
13	Manage Miscellaneous and General Fees	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Set up categories to group miscellaneous fees; these categories of grouped fees are used in self service.
14	Manage Curriculum Costs	In the Setup and Maintenance work area, use: • Offering: Student Management • Functional Area: Student Structures	Set up curriculum cost items for an institution (such as instructor fee or room rental), and define how those costs are calculated.

Related Topics

- Rapid Implementation for Oracle Student Management Cloud

Manage Academic Business Unit

An academic business unit is a financial entity that you map to an Oracle Fusion Cloud Financials business unit. The academic business unit contains the underlying financial settings that support the institution's financial transactions. These settings include selecting a payment method, refund method, or allowing discounts.

Oracle Fusion Cloud Student Management integrates with Financials to carry out processes like accounts payable and receivables. So when you set up an academic business unit, you map it to a Financials business unit. This association lets you keep track of financial transactions and, in the future, will let you administer various rules to match the unique needs of your organizations, campuses, and students.

To manage academic business units, you must have an implementer or administrator role.

As an implementor, in the Setup and Maintenance work area, use the Manage Student Financials Options task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, from Student Central search for **Academic Business Unit** .

Currently, you won't be able to create more than one academic business unit. If you have existing setup, this will be converted to use the new structure.

From the landing page, if you already created your business unit, click its name to edit the settings associated with it.

Details

From this page, you can set the transaction numbering scheme, enable discounts at the academic business unit level, and map student financial transactions to accounts receivable values.

Here are some fields to note. The information you provide in the Accounts Receivables Values section is used to create customer accounts.

- The **Auto Numbering** scheme you select dictates how transactions and receipts are numbered and whether you can use your own prefix.
  We recommend selecting **Student Financials** so that you can define your own prefix. The prefix helps you identify transactions that originate from Student Management. This keeps transactions easier to distinguish from those of Oracle Fusion Cloud Receivables.
  Once you set the auto numbering scheme and prefix, don't change the values. Doing so may impact your reports and other financial components.
- Select **Allow Discount** to to enable discounts on tuition and fees at the business unit level. To administer discounts, go to the *Manage Discounts* page.
- In **Customer Profile Class**, select **ORA_HED_BFB**. This is a seeded profile that includes the necessary settings to create customer accounts and enable balance forward billing.
- **Payment Term** is automatically populated with the value that's set up in the profile class you selected.
- In **Customer Class**, select a value that matches your organization's requirement. The value you select places users in that group. Think of customer class as a grouping of people.

Transaction Source

In Transaction Source, you can map a fee type to a transaction source. When you create student fees, the mapping on this page is used to determine which transaction source maps to a fee type and vice versa.

The Default column refers to the default transaction source. You set up transaction sources in Financials, which you would have already done prior to setting up your academic business unit. See *Manage Transaction Sources*.

Payments

Payment methods define the ways students can pay for courses or for items associated with these courses. You can choose to enable one or all payment methods.

You need to select a receipt method for each payment method so you can process the payment and issue receipts. Receipt methods are defined in Financials. See *Manage Receipt Classes and Methods*.

For electronic payments, choose either one of these options:

- **Oracle payment solution** indicates that you want to use Financials as your payment service provider. Make sure you set up Financials appropriately. See *Overview of Financials Implementation for Student Management*.
- **Other payment service provider** indicates that you want to use your preferred payment service provider. To use this, you need to integrate your payment service provider with Student Management. See *Integrate a Third-Party Payment Service Provider*.

In **Payment Error Resolution**, it's important that you designate a person who's in charge of resolving payment issues. This person will receive email notifications about transactions where invoices or receipts couldn't be created. If these items can't be created, then they aren't recorded in students' accounts. Sending a notification about these issues informs the designated person that they need to take steps to correct the issue.

Refunds

Refund methods define the ways in which you can refund students or organizations. The methods you set up are what's available to you whether you manually issue refunds for individuals or multiple recipients.

For each method you create, you can also enable **Allow Refunds with Debit Balance**. Enable this if you want to put an account in a debit balance—the account will have outstanding charges after the refund payment is made. The refunding process will refund the unapplied amount of the receipt for accounts that have both unpaid charges and unapplied receipts.

Related Topics

- Student Fees
- Manage Refunds

Tuition Calendars

Tuition calendars work with tuition schedules to define student payment and refund parameters. Configure tuition adjustment calendars to define the timetable for refunds when a class is dropped. Due date calendars, along with due date schedules, determine when you expect students to pay invoices.

The calendars you set up include:

- Adjustment calendars
- Due date calendars

Adjustment Calendars

Adjustment calendars interact with adjustment schedules to set up refunding rules. Creating adjustment calendars enables you to subsequently create adjustment schedules. You can review existing calendars and create new ones based on date ranges or academic periods.

As an implementor, in the Setup and Maintenance work area use the **Manage Adjustment Calendars** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit adjustment calendars. To access the page,from the Finances work area click **Actions** > **Manage Adjustment Calendars**.

Due Date Calendars

Due date calendars work with due date schedules to enable you to associate the correct due date with a fee. The due dates defined here are stamped on student charges, not on adjustments. You define due date calendars by Set ID and relate them to either an academic period or date range. A pivot date, such as the scheduled course start date, is the starting place to calculate due dates. Oracle Fusion Cloud Student Management counts the due dates either backward or forward from the pivot date that you select. Note that if fields on this page, such as **Due Date Code**, are used elsewhere in the application, the fields appear in gray and are unavailable to edit.

A scheduled course is also known as a course section.

As an implementor, in the Setup and Maintenance work area use the **Manage Due Date Calendar** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit due date calendars. To access the page, from the Finances work area click **Actions** > **Manage Due Date Calendars**.

Rapid Implementation of Tuition Calendars

You can create and upload calendars using the Rapid Implementation process:

- Create student tuition calendars using the Create Student Tuition Calendar in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.
- Create student due date calendars using the Create Student Due Date Calendar in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.
- Create tuition adjustment calendars using the Create Student Fees in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.

Related Topics

- Tuition Schedules
- Rapid Implementation for Oracle Student Management Cloud

Tuition Schedules

Tuition schedules work with tuition calendars to define student payment and refund parameters.

Configure tuition adjustment schedules to define the percentages to be refunded when a class is dropped. You also define the default academic periods used throughout the business unit. Due date schedules, along with due date schedules, determine when you expect students to pay invoices.

The schedules you set up include:

- Adjustment schedules
- Due date schedules

Adjustment Schedules

Adjustment schedules work with adjustment calendars; create an adjustment schedule and associate it with an adjustment calendar to determine a refund schedule. You can review adjustment schedules, duplicate an existing one, or create a new schedule for tuition adjustment. You can show or hide adjustment details including the date range during which adjustments are allowed, as well as the refund percentage.

As an implementor, in the Setup and Maintenance work area use the **Manage Adjustment Schedules** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can manage adjustment schedules. To access the page,from the Finances work area click **Actions** > **Manage Adjustment Schedules**.

Due Date Schedules

Due date schedules enable you to create, review, and update the specific timing used to calculate a due date on the charge. Due date schedules are related to the same academic period or date range as their associated due date calendar. For any calendar Set ID you can review due date schedules, duplicate an existing one, or create a new one. You can review due date calculation details, such as the number of days from the pivot date or system date that the charge is due.

As an implementor, in the Setup and Maintenance work area use the **Manage Due Date Schedule** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can manage due date schedules. To access the page,from the Finances work area click **Actions** > **Manage Due Date Schedules**.

Rapid Implementation of Tuition Schedules

You can create and upload schedules using the Rapid Implementation process. Create specific adjustment schedules using the **Create Student Fees in Spreadsheet** task in the Setup and Maintenance work area, Student Management offering.

Related Topics

- Student Fees
- Tuition Calendars
- Rapid Implementation for Oracle Student Management Cloud

Student Fees

Student fees describe the collection of all amounts that your institution can charge a student, including fee reductions, known as discounts.

The fee elements you can set up include:

- Curriculum fees
- Fee categories
- Fee groups and fee group default settings
- Academic period fees
- Miscellaneous fees
- Discounts

Curriculum Fees

Create curriculum fees to specify the amounts charged to students for courses and programs at your institution. You can create and update course and scheduled course fees. The new course and scheduled course fees you create are associated with a course or scheduled course in the Curriculum Registry.

A scheduled course is also known as a course section.

As an implementor, in the Setup and Maintenance work area use the **Manage Curriculum Fees** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit curriculum fees. Click **Navigator**, then in the Academics area click **Finances** > **Actions** > **Manage Curriculum Fees**.

Fee Categories

Fee categories are groups of general and miscellaneous fees that you charge to students. You can set up miscellaneous categories for each institution, such as insurance, fitness, or parking. You can also group miscellaneous fees and display fee categories in self service that have grouped fees within them. The fee categories that you set up are displayed to students on the self-service Review Cart page; students can add these optional items to their shopping cart.

As an implementor, In the Setup and Maintenance work area use the **Manage Miscellaneous Categories** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit miscellaneous categories. Click **Navigator**, then in the Academics area click **Finances** > **Actions** > **Manage Miscellaneous Categories**.

Fee Groups and Fee Group Default Settings

Fee groups are a collection of student academic period fees. You can create a new fee group or edit a fee group to add or remove existing academic period fees. You can manually assign fee groups to students, or assign a default fee group to an academic level.

If students:

- Are manually assigned a fee group, the fee assessment process uses the assigned fee group to assess student fees.
- Don't have a fee group assignment, the fee assessment process looks at the Manage Fee Group Default Settings table to determine which fee group is assigned to a particular academic level. The fees are then calculated using the fee group assigned to the students' academic level.

As an implementor, in the Setup and Maintenance work area use the **Manage Fee Groups** and **Manage Fee Group Default Settings** tasks:

- Offering: Student Management
- Functional Area: Student Structures

Note: The academic level and fee group combination must be unique for an academic institution. You can assign only one fee group to an academic level.

As an administrator, you can edit fee groups. Click **Navigator**, then in the Academics area, click **Finances** > **Actions** > **Manage Fee Groups**.

Academic Period Fees

Academic period fees are calculated based on the billing units of courses students are enrolled in for a specific reporting academic period. You can create, review, and update academic period fees, and review, sort, and filter them. Click the **Create Academic Period Fee** button to create an academic period fee, academic period course fee, or academic period scheduled course fee. You can show or hide academic period attributes, including the amount charged per range of units.

A scheduled course is also known as a course section.

As an implementor, in the Setup and Maintenance work area use the **Manage Academic Period Fees** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit academic period fees. Click **Navigator**, then in the Academics area click **Finances** > **Actions** > **Manage Academic Period Fees**.

Miscellaneous Fees

Miscellaneous fees are any student charge not associated directly with tuition, such as facility rental or course supplies. You can create, review, and update miscellaneous and general fees as well as review, sort, and filter miscellaneous fees, duplicate an existing one, or create a new one. These fees are grouped into fee categories.

As an implementor, in the Setup and Maintenance work area use the **Manage Miscellaneous and General Fees** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit miscellaneous fees. Click **Navigator**, then in the Academics area click **Finances** > **Actions** > **Manage Miscellaneous Fees**.

Discounts

Discounts control the percentage and availability of fee reductions, such as a discount for early enrollment. Enable discounts by selecting the **Allow Discount** check box on the Student Financials Options page. Also on that page, the business unit selected becomes the default value that appears on the Discounts page; this becomes the business unit to which the discount applies. You can review, sort, and filter price discounts, duplicate an existing one, or create a new one. You can set a priority order for when discounts are applied. You can also allow bursars to override a discount when creating student curriculum fee invoices. Note that if fields on this page, such as **Type**, are used elsewhere in Student Financials, the fields appear in grey and are unavailable to edit.

As an implementor, in the Setup and Maintenance work area use the **Maintain Discounts** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit discounts. Click **Navigator**, then in the Academics area click **Finances** > **Actions** > **Manage Discounts**.

Rapid Implementation of Student Fees

You can create and upload some fees and discounts using the Rapid Implementation process.

- Create academic period fees, course fees, and scheduled course fees using the Create Academic Period Fees in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.
- Create student fee discounts using the Create Student Fee Discounts in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.
- Load student fees and discounts using the Upload Student Fees and Discounts in Spreadsheet task in the Setup and Maintenance work area, Student Management offering.

Related Topics

- Tuition Schedules
- Curriculum Build Statuses
- Rapid Implementation for Oracle Student Management Cloud

Curriculum Costs

Curriculum costs are associated with a course or scheduled course in the Curriculum Registry. They help your institution evaluate the cost of delivery for its ROI calculations.

A scheduled course is also known as a course section.

You can set up curriculum cost items for an institution and calculate those costs by an amount for each enrollment, a flat amount, or as a percentage of total fees. In addition, you can review and sort curriculum costs or duplicate an existing one.

As an implementor, in the Setup and Maintenance work area use the **Manage Curriculum Costs** task:

- Offering: Student Management
- Functional Area: Student Structures

As an administrator, you can edit curriculum costs. To access the page, from the Finances work area click **Actions** > **Manage Curriculum Costs**.

Related Topics

- Curriculum Build Statuses

Student Financials Academic Periods

Student Financials academic periods are used with miscellaneous fees.

To create or view Student Financials academic periods, you can access the relevant task depending on your role.

- As an implementor, in the Setup and Maintenance work area use the **Manage Student Financials Academic Periods** task:
  - Offering: Student Management
  - Functional Area: Student Structures
- As an administrator, from the Finances work area click **Actions** > **Manage Student Financials Academic Periods**.

For more information on academic periods, see *Overview of Academic Periods*.

16 Student Admissions

Overview of Student Admissions Implementation

Oracle Student Admissions lets users enter, track, and process the submission of the admissions applications.

Users with the Application Implementation Consultant job role can implement Student Admissions. This topic provides an overview of the individual setup tasks for Student Admissions implementation.

To access the setup tasks, go to the Admissions Structures functional area in the Student Management offering.

Admissions Structures

You can do these setup tasks in any order during your implementation.

Task	Description
Manage Student Management Lookups	Set up lookups, for example, application lookups include descriptive meanings, and start and end dates.
Specify Admissions Settings	Define undeclared program parameters and admission activation reasons.
Manage Admissions Application Action Reasons	Define admissions actions that are used during application evaluations.
Manage Admissions Application Form Definitions	Create and manage application forms, and view submitted applications.

Overview of Application Composer for Admissions

Oracle Student Admissions uses Application Composer, part of the Applications Core Configuration task, to create custom fields for any of the admissions tables.

You can then add those fields to an admissions application form using Form Builder. You must create the fields in a sandbox and then publish to production before they become available to be added to a form.

> **Note:** You can only add fields to forms that were created after the new fields are published; they're not available to add to existing forms.

Creating Custom Fields for Admissions

You're limited to 70 total custom fields per table:

- 50 Character fields
- 10 Number fields
- 10 Time Stamp fields.

You can add these Application Composer field types to a form:

- Text
- Number
- Date
- Datetime
- Check box
- Percentage
- Fixed choice list (Single Select)
- Fixed choice list (Multiple Select)
- Fields with a fixed default value

You can't add these Application Composer fields to a form:

- Any field with a field type not listed above
- Fields with a formula (this includes fields with default value derived from an expression)
- Required fields (any required fields should be made required on the form only and not in Application Composer).

Related Topics

- Overview of Admissions Application Forms

Define Admissions Settings

Student Admissions works with Student Records and Campus Community functionality to enable students to apply to an institution and allow administrators to manage those applications.

First, define the programs to which a prospective student can apply, and then determine how to manage submitted applications.

You can define which **Academic Group** and academic **Program** are assigned to a prospective student who applies to an undeclared program.

The **Activation Reason** is required for auto admit functionality. You can set up activation reasons using the Manage Admissions Application Action Reasons task in the Setup and Maintenance work area.

In the Setup and Maintenance work area, use the Specify Admissions Settings task:

- Offering: Student Management

- Functional Area: Admissions Structures

Overview of Admissions Application Forms

Admissions managers and their staff can create a variety of admissions application forms using Form Builder.

Prospective students then complete these program-specific application forms when they apply to your institution. You can tailor each application to a program's requirements, and continue to edit their content even after students submit them.

Application forms are in one of these version states:

- Draft
- Published
- Unpublished

Initially, the forms are created in a draft state. Over time, you can create additional versions from any other draft, published, or unpublished versions.

To create new admissions forms and also to create additional versions of them, from Student Central, click **Search** and search for **Form Inventory**.

Related Topics

- Implement Student Admissions
- Associate Fees with Application Forms

Define Admissions Application Action Reasons

You will use admissions application action reasons when evaluating submitted applications from prospective students. There are five possible actions. The two delivered values are Activate and Submit. Other options are Add, Admit, Deny, and Waitlist.

You can select any action name to access that action's page; here are some of the things you can do on the page:

- Assign a reason code and define reasons for the action (for example, the admissions application action **Deny** can have *Not admitted* and *Application denied* as its associated reasons).
- Set other values such as whether to show the action to the applicant.
- Review and sort reason codes or duplicate an existing one.

> **Note:** The program the applicant applies to must be set as Admissions Required in Student Records. Otherwise the applicant can't apply to it, and it won't appear as an available program in Form Builder for administrators to add to an application.

In the Setup and Maintenance work area, use the Manage Admissions Application Action Reasons task:

- Offering: Student Management

- Functional Area: Admissions Structures

Related Topics

- Create Academic Groups

17 Advisement

Overview of Advisement Implementation

The key feature of Advisement is the Student Course Schedule. It is designed to simplify and clarify each step of the course scheduling and registration process for students.

You need to complete setup outside of Advisement to ensure that students can use the Course Schedule.

Configure Your Academic Structures for the Student Course Schedule

When you set up the academic structures for your institution, be sure to take these steps to provide the configurations needed for the Student Course Schedule.

1. Create academic periods.
2. Set up academic period attribute dates. Make sure that each academic period includes these attributes that let the Course Schedule work as described.
    - **First Date to Search**

      From this date, a student can search for courses and add them to their schedule. In the Course Schedule, the academic period shows a status of **Ready to Schedule**.
    - **Last Date to Search**

      After this date, a student can't search for courses or add them to their schedule.
    - **First Date to Enroll**

      From this date, a student can enroll in course sections from their schedule. In the Course Schedule, the academic period shows a status of **Now Enrolling**.
    - **Last Date to Enroll**

      After this date, a student can’t enroll in course sections from their schedule. If the end date of the academic period hasn’t passed, the period shows a status of **In Progress** in the Course Schedule.
    - **Last Date to Drop: Do Not Retain**

      If a student drops a course on or before this drop deadline, the course no longer displays on the student’s schedule.
    - **Last Date to Drop: Retain**, **Last Date to Drop: Penalty**, **Last Date to Drop: Greater Penalty**

      If a student drops a course after the Do Not Retain deadline and on or before these drop deadlines, the course continues to display on the student’s schedule.
    - **Last Date to Drop**

      After this date, a student can’t drop a course from their schedule.
3. Create a reporting period and add it to the academic period.

4. Add the reporting period to the academic period sequence.
5. Create Academic Period Attribute Dates for midterm and final grade release dates.
6. Add the grade release attribute dates to the academic period sequence.
7. Enroll students in a program of study. Students can see active periods in their course schedule only if they are enrolled in a program.

Related Topics

- Create and Manage Academic Period Attribute Dates
- Create and Manage Academic Periods
- Period Sequences
- Add Student Programs

18 Rapid Implementation

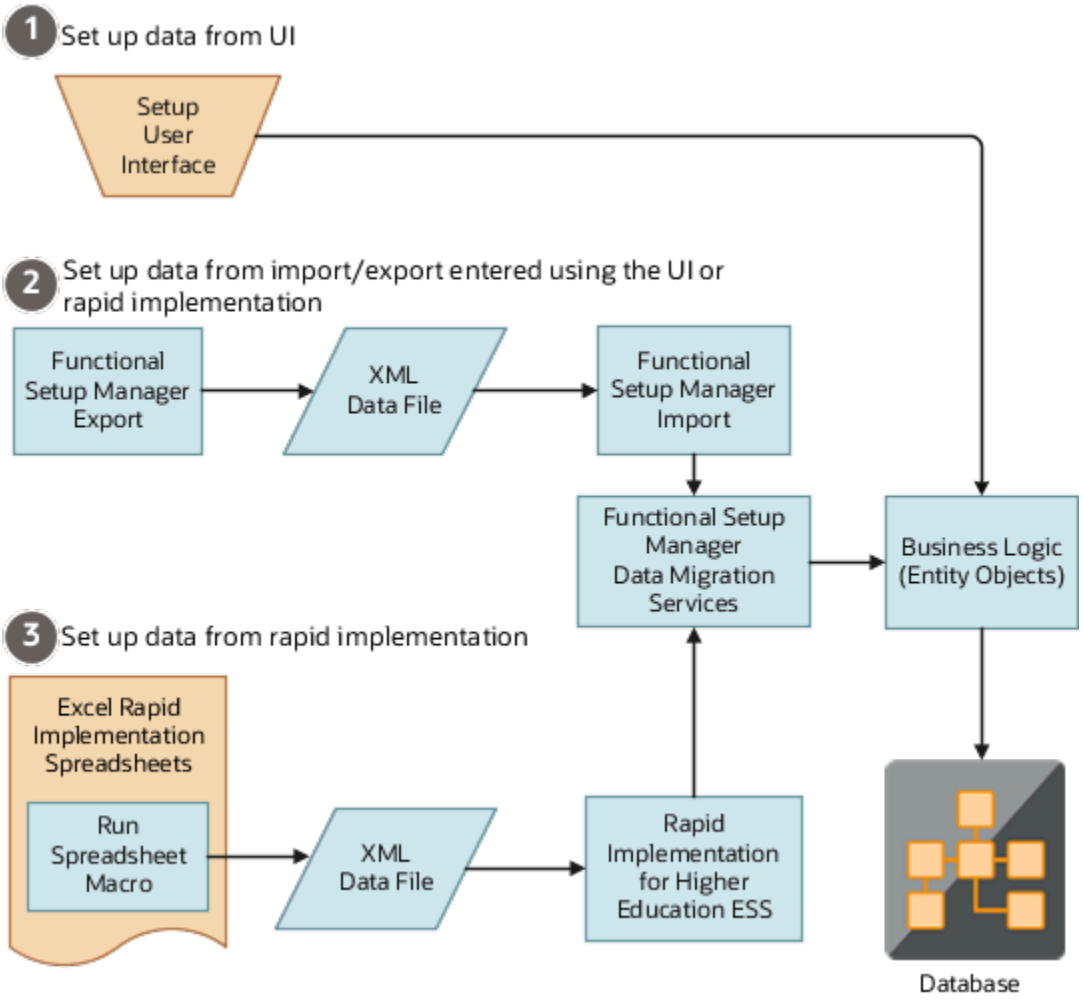
Rapid Implementation for Oracle Student Management Cloud

Use the Rapid Implementation process to quickly upload setup data using spreadsheets. Rapid implementation minimizes the overall time and effort for your implementation by avoiding intense data entry and helps manage complex data structures and internal dependencies.

The Rapid Implementation tasks for Student Management are located in the Setup and Maintenance work area, Student Management offering.

You can use rapid implementation during initial implementation, and after implementation, for ongoing maintenance, such as bulk data loads and updates of setup data. Rapid Implementation loads are re-runnable where different processing options were implemented based on functional need for each business object.

This figure shows three different modes of entering setup data.



Student Records Rapid Implementation Tasks

Here are the rapid implementation tasks for Student Records.

Academic Structures:

- Create Academic Structures in Spreadsheet.
- Create Academic Periods in Spreadsheet.
- Create Facilities in Spreadsheet.
- Create Academic Staff in Spreadsheet.
- Upload Academic Structures in Spreadsheet.

Curriculum Structures:

- Create Curriculum Registry Configuration in Spreadsheet.
- Create Curriculum Registry Items in Spreadsheet.
- Upload Curriculum Structures in Spreadsheet.

Student Financials Rapid Implementation Tasks

Here are the rapid implementation tasks for Student Financials:

- Create Student Tuition Calendar in Spreadsheet.
- Create Student Due Date Calendar in Spreadsheet.
- Create Student Fees in Spreadsheet.
- Create Academic Period Fees in Spreadsheet.
- Create Student Fee Discounts in Spreadsheet.
- Upload Student Fees and Discounts in Spreadsheet.

Campus Community Implementation Tasks

Here are the rapid implementation tasks for Campus Community:

Student Structures:

- Create Administrative Service Indicators and Impacts in Spreadsheet.
- Upload Administrative Service Indicators and Impacts in Spreadsheet.

Academic Structures:

- Create External Organizations in Spreadsheet.
- Upload External Organizations in Spreadsheet.

Prerequisites and Rapid Implementation Steps

The internal and external dependencies for each Rapid Implementation spreadsheet are documented in the Instructions tab. For Student Financials, you must complete the setup on the Manage Academic Business Unit page before proceeding with the Rapid Implementation process.

Here are the high-level steps for rapid implementation:

- Download a spreadsheet.
- Review the instructions in the spreadsheet.
- Enter the setup data in the spreadsheet.
- Generate a zipped file.
- Use the Rapid Implementation process to upload the setup data (zipped file).
- Check the Schedule Process log file for errors.

The spreadsheets are macro-enabled and contain instructions for entering data. The spreadsheets also include built-in validations that run before generating the zipped file that's used to load data into the database.

To upload the data, click **Navigator** > **Scheduled Processes** and run the Run Rapid Implementation For Higher Education job. After the process runs successfully, confirm the data by navigating to the corresponding UI setup task for which you entered data and reviewing it.

Use the Instructions tab of a spreadsheet to complete these tasks:

- Review detailed information about the specific task, including the particular dependencies, and the steps in the Rapid Implementation process.
- Use the Sample Data template to understand how to enter data in the various tabs of your spreadsheet.
- Use the Generate Extract button to generate the zipped file.

Rapid Implementation Load Order

Here's the order for the Rapid Implementation loads (zipped files):

1. Academic Structure
2. Administrative Service Indicators
3. Curriculum Registry Configuration
4. Academic Periods
5. Fee Calendar
6. Student Due Date Calendar
7. Fee Categories
8. Student Period Fees
9. Fee Discounts
10. Facilities
11. External Organizations
12. Academic Staff
13. Courses
14. Course Lists
15. Academic Groups
16. Programs
17. Scheduled Courses

    A scheduled course is also known as a course section.

Create and Upload Tasks

In some areas, the Rapid Implementation process involves multiple create tasks and one related upload task. In the upload task, you must upload all zipped files that are generated by the create tasks. You must upload the files in a particular order.

For the Upload Academic Structures in Spreadsheet task, upload the zipped files in this order:

- Academic Structures
- Academic Periods
- Facilities
- Academic Staff

For the Upload Curriculum Registry Structures in Spreadsheet task, upload the zipped files in this order:

- Curriculum Registry Configuration
- Courses
- Course Lists
- Academic Groups
- Programs
- Scheduled Courses

  A scheduled course is also known as a course section.

For the Upload Student Fees and Discounts in Spreadsheet task, upload the zipped files in this order:

- Fee Calendars
- Student Due Date Calendars
- Fee Categories
- Student Period Fees
- Fee Discounts