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Landmark Technology: Designing and Administering Configuration Console Training Workbook

Landmark Technology

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About this workbook

Welcome to this Infor Education course! We hope you will find this learning experience enjoyable and instructive. This Training Workbook is designed to support the following forms of learning:

- Classroom instructor-led training
- Virtual instructor-led training
- Self-directed learning

This Training Workbook is not intended for use as a product user guide.

Activity data

You will be asked to complete some practice exercises during this course. Step-by-step instructions are provided in this guide to assist you with completing the exercises. Where necessary, data columns are included for your reference.

Your instructor will provide more information on systems used in class, including server addresses, login IDs, and passwords.

Self-directed learning

If you are taking this course as self-directed learning, there may be instructor-recorded presentations and/or simulations available to assist you.

If instructor-recorded presentations are available, a hyperlink to the recording will be included on the first page of each corresponding Lesson.

If simulations are available, the demos and exercises throughout this Training Workbook will include hyperlinks that allow you to view and/or practice the execution of the demo or exercise in a simulated training environment.

Learning Libraries

Learning Libraries in Infor Campus include learning materials that are available to you online, anytime, anywhere. These materials can supplement instructor-led training, providing you with additional learning resources to support your day-to-day business tasks and activities.

Please note that if you accessed this Training Workbook directly via a Learning Library, you will not have access to the Infor Education Training Environment that is provided with all instructor-led and most self-directed learning course versions, as referenced above. Therefore, you will not be able to practice the exercises in the specific Training Environment for which the exercises in this Training Workbook were written.

Symbols used in this workbook



Exercise



Your notes



Question



Demo



Important note



Answer



Scenario or Discussion



Critical note



Task simulation



For your reference



Simulated activity



Course overview

Estimated time

.5 hour

Learning objectives

Upon completion of this course, you should be able to:

- Describe the Configuration Console.
- Describe how to navigate the Configuration Console.
- Describe how to configure application objects and settings.
- Describe how to make application user interface configurations.
- Describe how to make application business logic configurations.
- Describe how to configure the data area.
- Describe how to use the My Personalizations Console.
- Describe how to create and manage Landmark application reports.
- Describe Landmark Security.
- Describe how to configure security classes.
- Describe the administrative tasks for managing the Configuration Console.

Topics

- Course description and agenda

Course description and agenda

This course provides the skill and knowledge pertaining to Infor Configuration Console administration. This includes how to recognize the differences between configurations and personalizations and introduces Landmark Pattern Language (LPL). This course covers how to make application user interface configurations, application business logic configurations, data area configurations, and security class configurations. Creating and managing Landmark application business reports and performing administrative tasks in the Configuration Console are also included.

Prerequisite courses

- Lawson: Landmark Pattern Language and Configurations 01 - Overview (eLearning course)
- Lawson: Landmark Pattern Language and Configurations 02 - Configuring User Interface Objects (eLearning course)
- Lawson: Landmark Pattern Language and Configurations 03 - Configuring Data Areas, Business Classes, Actions, and Security Classes (eLearning course)
- Application specific eLearning courses

Course duration

40 hours

Prerequisite knowledge

To optimize your learning experience, Infor recommends that you have the following knowledge prior to taking this course:

- Familiarity with Landmark Pattern Language (LPL)
- Familiarity with the Landmark Web User Interface (Infor OS Portal/Ming.le)

Audience

- Customer Analyst / Developer
- Pre-Sales Consultant
- Business Consultant
- Technical Consultant
- System Administrator

System requirements

- Landmark 11 Tech V6 Training Environment

Reference materials

Configuration Console reference materials are available from the following locations:

- Landmark Help menu
- Infor Infocenter
- Infor Concierge / Infor Support portal

Course agenda

The agenda below details the contents of this course, including lesson-level learning objectives and supporting objectives.

Lesson	Lesson title	Learning objectives	Day
Course overview		Review course expectations	1
1	Configuration Console overview	<p>Describe the Configuration Console.</p> <ul style="list-style-type: none">• Describe Landmark.• Describe how the Configuration Console is used.• Identify the benefits of the Configuration Console.• Differentiate between a personalization and a configuration.• Define basic terminology for the Configuration Console.• Describe Landmark Pattern Language (LPL) and framework constructs.	1
2	Configuration Console navigation	<p>Describe how to navigate the Configuration Console.</p> <ul style="list-style-type: none">• Identify the user interfaces for making and verifying configurations.• Identify the steps to access the Configuration Console.• Describe security access for the Configuration Console.• Describe how to access the Configuration Console for application configurations.• Describe how to access the Configuration Console for security configurations.	1
3	Application configurations overview	<p>Describe how to configure application objects and settings.</p> <ul style="list-style-type: none">• Identify application objects that can be configured.• List examples of how user interface objects can be configured.	1

Lesson	Lesson title	Learning objectives	Day
		<ul style="list-style-type: none"> Identify business class components that can be configured. Describe the functionality of using Control (Ctrl) + Shift + left click. Describe how to use the LPL Viewer. 	
4	Making application user interface configurations	<p>Describe how to make application user interface configurations.</p> <ul style="list-style-type: none"> Describe the different ways to change the look and feel of lists. Describe the different ways to change the way you work with lists. Describe the different ways to configure forms and composite forms. Describe the difference between initial value rule and when value changed. Describe the different ways to configure menus. Describe the different ways to configure pages. 	2
5	Making application business logic configurations	<p>Describe how to make application business logic configurations.</p> <ul style="list-style-type: none"> Discuss the different types of fields. Describe how to use parent hierarchy when creating a record in a business class. Describe how to add relations to business classes. Describe how to work with conditions. Describe how to create a new business class. Describe how to use business logic to define actions. 	3
6	Making data area configurations	Describe how to configure the data area.	4

Lesson	Lesson title	Learning objectives	Day
		<ul style="list-style-type: none"> Describe how to add business subjects to the data area. Describe how to enable/disable translation. Describe how to manage time zones. Describe how to manage MIME types. 	
7	Personalization overview	<p>Describe how to use the My Personalizations Console.</p> <ul style="list-style-type: none"> List the components that can be personalized. Describe security access for the My Personalizations Console. Describe how to personalize a list. Describe how to personalize a form. 	4
8	Creating and managing Landmark application reports	<p>Describe how to create and manage Landmark application reports.</p> <ul style="list-style-type: none"> Identify where you can create Landmark application reports. Explain how lists can be used to create basic reports. Describe how reports can be personalized. Describe the different ways you can view reports. 	4
9	Security configurations overview	<p>Describe Landmark Security.</p> <ul style="list-style-type: none"> Define Landmark Security. Identify the paths for accessing the Configuration Console for security. Describe security access. Define security terminology. Describe the relationship between roles, security classes, and rules. Discuss the benefit of using standard templates. 	5

Lesson	Lesson title	Learning objectives	Day
		<ul style="list-style-type: none"> Describe how security classes are organized. Describe configurable features. 	
10	Making security class configurations	<p>Describe how to configure security classes.</p> <ul style="list-style-type: none"> Identify securable objects. Define a security policy. Identify the three types of security rules. Describe how to make modifications to security classes. Identify security reports. 	5
11	Configuration Console administration	<p>Describe the administrative tasks for managing the Configuration Console. Discuss how updates are managed.</p> <ul style="list-style-type: none"> Discuss how updates are managed. Describe how Verify Configurations is used to verify configurations. Describe how to use Compare Against Base for updates and maintenance. Describe how to view configuration history. Describe how to use the Administration Console to manage configurations. Identify how the configuration data utilities are used. Identify tools for troubleshooting configuration issues. Discuss best practices for Configuration Console administration. 	5
Course summary		Debrief course.	5

Appendix

This section contains information that is not part of the instructional content of this course, but provides additional related reference information.

Appendix	Appendix title	Content description
Appendix A	User accounts	This appendix provides a reference for student and instructor login credentials.



Lesson 1: Configuration Console overview

Estimated time

1.5 hours

Learning objectives

After completing this lesson, you will be able to describe the Configuration Console. In this lesson, you will:

- Describe Landmark.
- Describe how the Configuration Console is used.
- Identify the benefits of the Configuration Console.
- Differentiate between a personalization and a configuration.
- Define basic terminology for the Configuration Console.
- Describe Landmark Pattern Language (LPL) and framework constructs.

Topics

- Landmark overview
- Configuration Console introduction
- Basic terminology
- Landmark Pattern Language (LPL) overview
- Check your understanding

Landmark overview

Infor Landmark Technology Runtime (abbreviated as Infor Landmark) is a platform that enables development and running of Service Oriented Architecture (SOA) applications on platforms supporting J2EE architecture application servers.

The Landmark platform includes both a program model and a runtime (production) system.

- The program model is built on the specifications of Landmark Pattern Language (LPL) and managed through a tightly controlled application source code repository.
- The production system includes an application server, fully featured relational database implementation, system administration, and configuration utilities

Infor Landmark provides the runtime environment needed to run Infor Landmark applications.

The Landmark Technology platform provides a Landmark Web User Interface Configuration Console and Security Administration WebApp for creating and administering changes to delivered object or extending capabilities.

Effective **March 31, 2023**, the Infor Landmark Technology Runtime releases will no longer deliver or maintain the Infor Rich Client (IRC) component.



The Infor Rich Client has been superseded by the Configuration Console for the web (Web Configuration Console) and Security Administration for the web (Web Security Administration) web browser-based tools. This course has been updated to remove the dependency on the Rich Client however, the Configuration Console within is still in support until the decommission date.

Deployment types

Infor Landmark Technology Runtime has several deployment options available.

- On-premise deployment is the installation of products on servers at a customer's location.
- Cloud deployment (Infor Cloud) installs Infor Landmark Technology Runtime and any additional applications on Amazon Web Services (AWS) servers that are maintained by Infor.
- Hybrid deployments include a combination of both on-premise and cloud installations. For example, you might have an on-premise Infor Human Resources Management Payroll installation that works in conjunction with a cloud deployment of all other Infor products.

In addition, within a cloud deployment, there can be either a single tenant or multi tenants. In a multi-tenant configuration, multiple customers (tenants) use the same Infor Landmark Technology Runtime environment, but each tenant has its own data area within that environment.

If you are using Infor Landmark Technology Runtime in a multi-tenant environment, there are several functionality differences compared to a single-tenant or on-premise implementation.



For more detailed information on the available deployment options, contact your Infor account manager

Configuration Console introduction

The Configuration Console is a tool which enables administrators to make several types of configurations that affect applications and users.

The following can be configured:

- Applications
- Security
- Data Area
 - Subjects
 - Multipurpose Internet Mail Extensions (MIME) types
 - Time zones
 - Data translations

Configurations made using Configuration Console change a copy of the LPL source, which then is stored separately in the database. When you make configuration changes, the changes are “global”, applying to all users unless the user already has a personalization on the configured object.

Application configurations

Configurations are global changes an administrator can make to tailor existing application components to fit a business need. Configurations can be made to user interface components and business classes.

Application configurations can modify the features, functionality, and the look and feel of the user interface objects such as menus, pages, composite forms, lists, and forms. Within a list or form, such components as labels and text, fields, check boxes, and buttons can be configured. Application configurations change the experience of those that work with modules – modifying both what they see and the tasks they can perform.

Configurations are done in real time, which means that changes take place immediately in a running system with no down time.

In addition to existing application components, new application components can be created. This extends an existing application and/or integrates the application with external systems through internal or external application program interfaces (API).

This includes:

- New user interface components such as lists, forms, actions, action requests, and pages.
- New user business classes such as objects, data, state, or behavior.

Like existing configurations, new configurations are done in real time with no system down time.

Security configurations

Security configuration includes creating new and modifying existing security classes, and managing role, actor, and identity records.

Business Subjects

A business subject organizes Action Reason codes used in Landmark application processes.

MIME types

MIME types form a standard way of classifying file attachments. Configuring MIME types allows the control of attachments that can be uploaded into the system.

Time zones

Active time zones define the list of time zones for users to choose from when setting a future effective date for actions in applications.

Data translations

You can control whether data translation or dynamic embedded text (DET) is enabled or disabled for a data area.

Purpose and benefits

The Configuration Console offers many benefits, which are described in the following table:

Purpose	Benefit
Increase in user adoption	There is an increase in user adoption of the application because it improves the user experience and creates efficiencies down to the field level.
Increase in productivity	There is the ability to tailor the application user interface to meet the user's needs which contributes to an increase in productivity.
Lower cost of implementation	There is a lower cost of ownership to implement the Configuration Console due to the application having predefined, delivered security templates.
Lower cost of ownership	There is a lower cost of ownership because the user can manage the security and configurations.
Lower cost of maintenance	There is a lower cost of maintenance because the application upgrades are easy and generally error-free.



Basic terminology

There are several terms that are important for you to understand as you work in the Configuration Console.

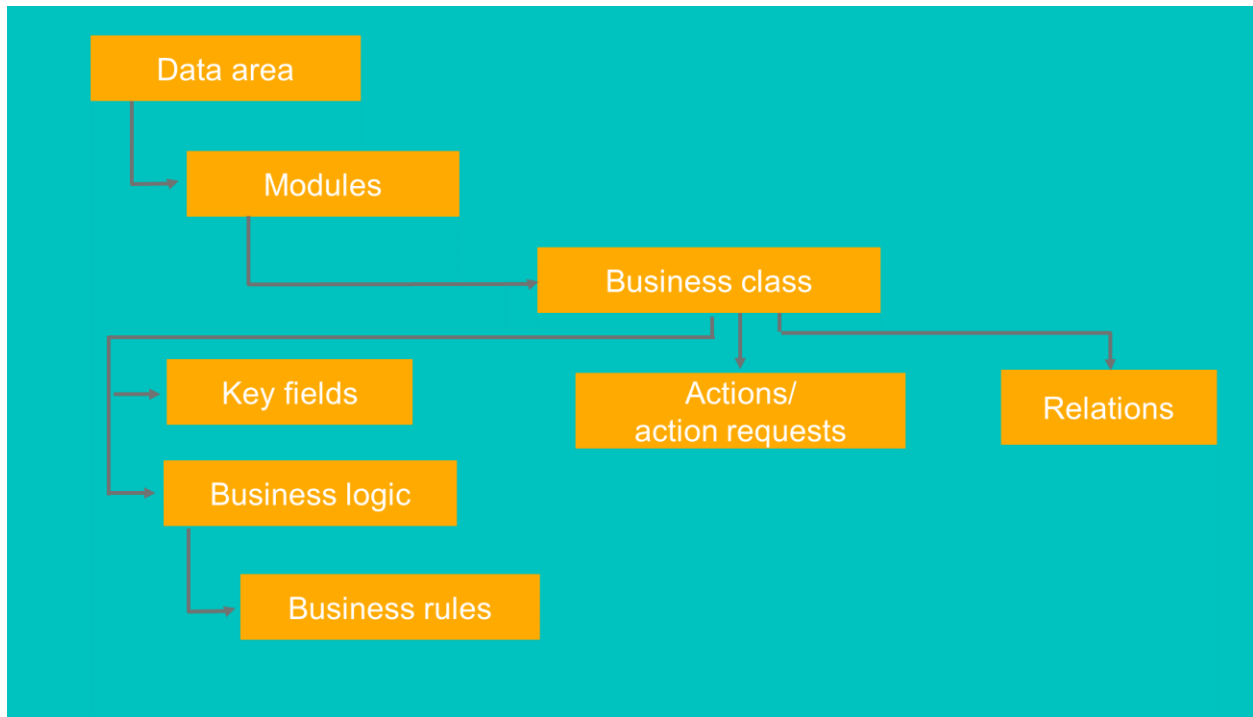
These terms, with examples where applicable, are defined in the following table:

Term	Definition	Example
Data area	The data area is the highest level within a suite of applications when working with Landmark applications.	<ul style="list-style-type: none">Human Capital Management (HCM)Infor CloudSuite™ Financials (IEFIN)
Modules	Modules are components of a data area.	<ul style="list-style-type: none">HCM modules enable the use of Global Human Resources (GHR) and Infor® Talent Management.IEFIN modules enable the use of Infor CloudSuite, Financials Core, and Infor Supply Management.
WebApp	WebApps are components of the data area built to create the user experience for the application based on job function. The WebApp controls the Menu and Quick Link page displayed.	<ul style="list-style-type: none">HCM - HRGeneralistFSM - Staff AccountantGeneral – ConfigurationConsole, SecurityAdministration, LpaAdmin, AdministrationConsole
Business classes	Each data area module contains a set of related business classes, which are the repositories of data, along with instructions on how that data is organized and processed. A module can contain dozens of business classes.	<p>HCM</p> <ul style="list-style-type: none">HROrganizationWorkAssignmentBenefitPlan <p>Infor CloudSuite Financials</p> <ul style="list-style-type: none">GlobalLedgerTransactionReceivableCompanySupplierGroup
Key fields	A business class consists of key fields organized in what is similar to databases.	<ul style="list-style-type: none">Employee business class includes such key fields as Employment ID, First Name, Middle Initial, and Last Names.

Term	Definition	Example
		<p>Many additional employee field types enable Landmark to store the data needed to define and manage employees.</p> <ul style="list-style-type: none"> Key fields for IEFIN include Vendor, Item, and Payables Invoice.
Business logic	Business logic, which is contained within a business class, manages the key fields and controls how users can interact with the data in a business class. This is what users see and what they can do.	
Business rules	Business rules determine how key fields can be created, stored, displayed, and modified. The rules also control how key fields interact with each other and how they can be used to create derived fields. A derived field is a calculated field, using data from key fields.	
Relations	<p>Relations define how two business classes can relate or join to one another.</p> <p>Relations define how records within a business class can relate. Identify if a record exists. This type of relation is needed for advanced LPL configurations.</p>	<p>The Employee business class is related to the HROrganization business class. Employees exist in terms of the HR organization. There is also a relation between HROrganization and the business class Supervisor. A relation exists between HROrganization and the business class Job, and the Position business class has a relation with Job. Every job has at least one position. Also, the business class WorkAssignment is related to the business class Position. When you define a work assignment, you select a position for that assignment. WorkAssignment is also related to Employee. Employees have a work assignment.</p>
Context	Within Landmark, relations among key fields build context. Relations and context help provide the ontology for each key field. Context defines the objects that afford, or	Supervisor, Employee, and Job cannot exist without HROrganization, their context is HROrganization.

Term	Definition	Example
	enable, the existence of other objects.	Similarly, because a Position cannot exist without a Job, a position's context is Job and implicitly in the context of HROrganization. The context for WorkAssignment is the Position and the Employee, also in the context of Job and HROrganization.
Actions and action requests	A business class contains the definition of the action request. An action request triggers an action to be taken on the specific business class. Any number of action requests can be created to serve different business needs.	The Employee business class can have actions or action requests such as Hire Resource, Transfer, Promote, Change Pay Rate, Add Work Assignment, and Terminate. The PurchaseOrder business class can have actions such as Cancel Purchase Order, Issue Final, or Issue Draft.
User interface objects	User interface objects, with logic, enable users to access and use the data. They work together and are created using LPL.	Examples of user interface objects include menus, pages, composite forms, lists, and forms. On forms, you can configure text and labels, fields, check boxes, buttons, and links.

The following graphic illustrates the relationship of these terms:



Relationship of key terms



LPL overview

Within a business class, key fields and business logic supply the data and the controls for Landmark data areas. User interface objects, with logic, enable users to access and use the data. They work together using a programming language called Landmark Pattern Language (LPL). LPL is a proprietary specification language developed by Infor that applies programmatic patterns to business applications.

Source files are delivered out of the box. Changing the source code is possible on-premise only and is highly discouraged. To change your application, the recommended approach is making configuration or personalization changes via the Configuration Console framework and tooling. This is your only option in Infor Cloud.

The Configuration Console user interface allows manipulation of an application's delivered LPL. The application LPL source file integrity is fully protected by the Configuration Console. The LPL source file is not modified by the Configuration Console, rather a copy of the LPL source object is created and stored to a database table as a configuration. At application execution time, this configuration is brought into memory as an overlay of the base source object and is executed in place of the original LPL source object.

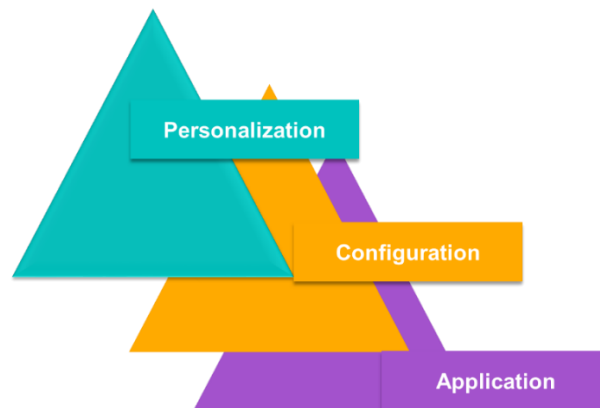
The Configuration Console also enables organizations to create new configurations of new user interface objects. All configurations apply to all users of the application. Special security is required to create or change configurations.

Individual users can personalize applications using the My Personalizations Console. Like configurations, these personalizations are stored to a database table as a personalization. However, the results of the configured LPL apply only to the user that made the personalizations. If two different users both personalize the same module, their experience using the module will differ. The source files are not affected by either configurations or personalizations.

Configurations and personalizations

Configurations and personalizations are dynamic and take place in real time. When an application is launched, first, any configurations created for the module are brought into memory as an overlay of the LPL source files and are executed in place of the source files. Then, for the user launching the application, any personalizations created by that user execute and overlay and supersede any configurations.

The following graphic illustrates this layered approach:



Configuration Console layered approach

LPL example

Let's look a simple example of LPL source code using the following image. This is an example of the page that displays if you select the Resources menu option in Global Human Resources (Global HR).

1. It starts with the definition of the page. The Landmark code for this page identifies it as a page and provides a title for this page.
2. The Resource Search page displays with two tabs or panels – ResourceSearch and WorkAssignmentSearch. It also provides specifications for the two tabs.

The screenshot shows the 'Resource Search' page in Global HR. The page has a header with 'Resource Search' and a sub-header with 'Resource Search' and 'Work Assignment Search'. The main content area contains a search form with fields for 'Keyword', 'Employment ID', 'Organization Unit', and 'Job'. Below the form is a table of search results. The table has columns for 'Last', 'Preferred Name', 'First', 'ID', 'Status', 'Yes', 'No', 'ADMINASST', 'Telemarketing', and 'Cleveland, Tony'. The table contains several rows of data, including 'Ackers, Emily', 'Adams, Charles', 'Anders, Mark', 'Anderson, Ethan', 'Arthur, Melissa', and 'Asimov, Isaac'. The table is annotated with LPL code snippets. The first snippet, labeled '1', is 'ResourceSearchPage is a Page title is "ResourceSearch"'. The second snippet, labeled '2', is 'ResourceSearch is a Panel mouse over text is "Search,ViewsManageResources" business class is Employee list is EmployeeDefaultList'. The third snippet, labeled '2', is 'WorkAssignmentSearch is a Panel mouse over text is "Search,ViewsManageWorkAssignments" business class is WorkAssignment list is EmployeeWorkAssignmentsSearchAdmin'. The table is also annotated with a '2' in a circle.

Last	Preferred Name	First	ID	Status	Yes	No	ADMINASST	Telemarketing	Cleveland, Tony
Ackers	Emily								
Adams	Charles								
Anders	Mark		1146	1	Yes	Yes	ADMINASST	Telemarketing	Cleveland, Tony
Anderson	Ethan		2	1	Yes	Yes	QUALANAL	Telemarketing	Fisher, Kristie
Arthur	Melissa		1134	1	Yes	Yes	BUSANAL	Telemarketing	Ackers, Emily
Asimov	Isaac		1152	1	Yes	Yes	CALL CENTE...	Inside Sales	Hadley, Sue

Resource Search page in Global HR with LPL example



Configuration Console & Security Administration

data area storage

The Configuration Console is by data area. A developer would make changes to the application or security as needed within the specific data area using the web applications provided. It's important to understand the technical storage of these items for troubleshooting and reporting.

The following table addresses the technical storage of the Configuration Console objects within each data area.

Term	Definition	Object Example
repository	The repository for configuration console is a module. A container of business classes and business tasks. There is a repository module within each data area. The copied or developed LPL object live in the tables of the repository module	<ul style="list-style-type: none">• repository
_config	The _config is also a module. This module will be the storage location for any developed business class data. This module again is by data area.	<ul style="list-style-type: none">• _config
security	The security for Landmark security class is a module. A container of business classes and business tasks. There is a security module within each data area. The delivered _ST security objects live in the tables of the security module. Actor information resides in the person module business classes.	<ul style="list-style-type: none">• Security
ConfigEntity	The ConfigEntity is a unique Business Class that stores all objects within the detailed tables of the repository. Think of it as a summary of all the copied or developed LPL object. This can be used for reporting. The ConfigEntity is behind the Console and Master displays of Configurations, Personalizations, Reports and Security Classes	<ul style="list-style-type: none">• ConfigEntity

Term	Definition	Object Example
User* business classes	Under the repository module are the business classes beginning with User* for each of the objects that are configurable. The code is copied from the src (source) to the corresponding objects User table. The object configured will be executed if in Active state from the User* business class.	<ul style="list-style-type: none"> • UserMenu • UserList • UserForm • UserField
SecurityClass business class	Under the security module is a SecurityClass business class. The code is copied from _ST or developed into this table.	<ul style="list-style-type: none"> • SecurityClass

Check your understanding



Which one of the following options provides the runtime environment to run Infor Landmark applications?

- a) Infor OS Portal/Ming.le
- b) Infor Rich Client
- c) Infor Landmark Technology Runtime
- d) Configuration Console



Match each of the following terms with the definition. The possible terms are: **user interface objects**, **data area**, **business logic**, and **business rules**.



Definition	Term
Determines how key fields can be created, stored, displayed, and modified	
Enables users to access and use the data	
Manages the key fields and controls how users can interact with the data in a business class	
Highest level within a suite of applications when working with Landmark applications	



Which two of the following options are the user interfaces provided by Infor Landmark?

- a) Infor Rich Client
- b) Infor Process Automation (IPA)
- c) Landmark Pattern Language (LPL)
- d) Landmark Web User Interface



Lesson 2: Configuration Console navigation

Estimated time

3 hours

Learning objectives

After completing this lesson, you will be able to describe how to navigate the Configuration Console. In this lesson, you will:

- Identify the user interfaces for making and verifying configurations.
- Identify the steps to access the Configuration Console.
- Identify the steps to access the Web UI Configuration Console
- Describe security access for the Configuration Console.
- Describe how to access the Configuration Console for application configurations.
- Describe how to access the Configuration Console for security configurations.

Topics

- Accessing the Configuration Console
- Accessing the Web UI Configuration Console
- Configuration Console security access
- Navigating the Configuration Console
- Check your understanding

Accessing Configuration Console

To make configuration changes, you can access Configuration Console using the Landmark Web User Interface.

To test and verify changes, you will use the Landmark Web User Interface.

Infor OS Portal/Ming.le

Infor OS Portal/Ming.le™ is the web interface that provides access to most Infor products. Infor OS Portal/Ming.le provides a portal and plug-in interface to Infor applications through which users access and navigate the system. For typical users, Ming.le is the portal framework through which they view Landmark applications from authentication through logout.

Infor OS Portal/Ming.le provides drill-back capability among Infor applications so that users can navigate from one application to another.

Landmark Web User Interface

Landmark applications are built for the Landmark platform. You use the Landmark Web User Interface to access your Landmark applications. The Landmark Web User Interface is written using HTML5, Cascading Style Sheets (CSS), JavaScript, and JavaScript Object Notation (JSON languages). It is built from core Hook and Loop SoHo components and leverages the design output and overall user experience principles from the Hook and Loop team.

The Landmark Web User Interface implements a REST-ful Uniform Resource Identifier (URI) architectural style as well as component-oriented architecture for embedding and compositing application component views.

Configuration Console

Configuration Console is a tool (WebApp) used to configure and extend any Infor Landmark technology platform-based application.

Security Administration

Security Administration is a tool (WebApp) used to configure and extend the roles and rules-based security policies for any Infor Landmark technology platform-based application.

Configuration Console security access

To access the Configuration Console, you must have a security role that includes one of several security classes or their equivalent. The configuration tasks you might want to perform, and the relevant security classes needed for those tasks are identified in the following table:

To perform this task...	You must have these security classes or their equivalents...	You must be assigned this role...
Modify application configuration (menus, pages, lists, forms, MIME types, etc.)	GlobalUIConfigAccess_ST For MIME type configuration, a user also needs access to: <ul style="list-style-type: none">• la module• MimeType business class	ConfigurationAccess_ST
Modify security classes	SecurityConfigAccess_ST and ConfigAdminAccess_ST	SecurityAdministrator_ST
Work with actors, identity, and roles	SecurityConfigAccess_ST and UserAdminAllAccess_ST	SecurityAdministrator_ST
Work with MIME types	GlobalUIConfigAccess_ST	ConfigurationAccess_ST

The ApplicationAdminstrator_ST role delivered with CloudSuite Financials and Supply Management will also provide the same access to Configuration Console and Security Administration

Personalization access

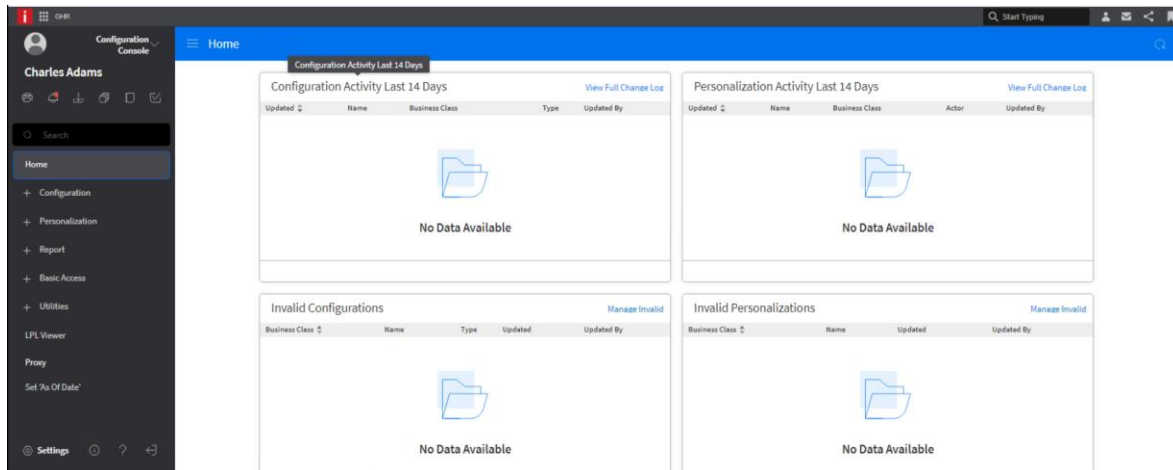
Permission to make personalizations requires the security role of PersonalizationAccess_ST plus another complementary role such as HRGeneralist_ST.



Navigating the Web UI Configuration Console

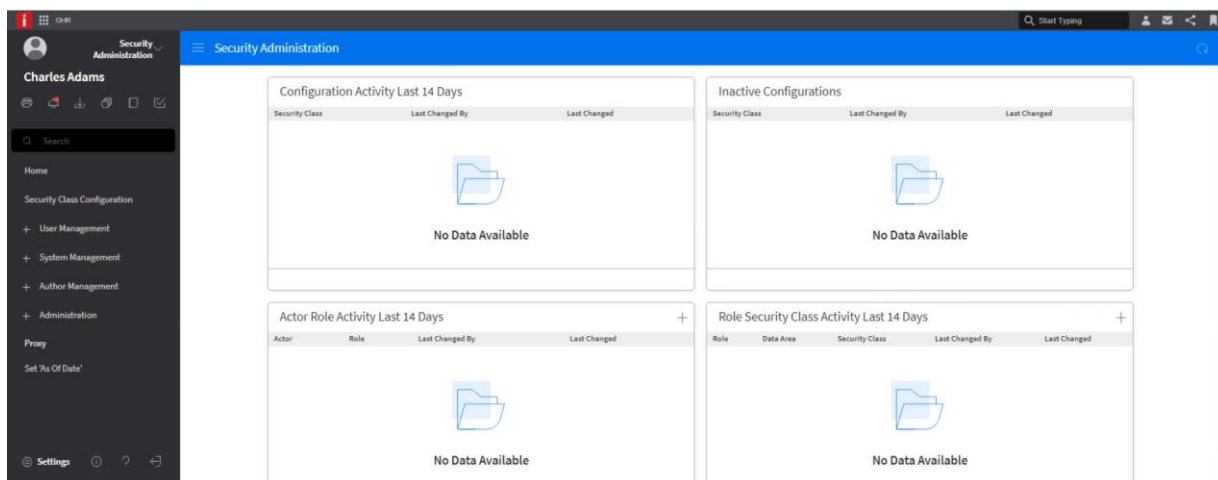
To access the Configuration Console using the Landmark Web UI, you must be logged in to **Infor OS Portal/ Ming.le** using your assigned username and password. The following image provides a high-level overview of how to access the Configuration Console in either CS HCM or CSF:

Select Configuration Console from the Application Switcher. The Configuration Console homepage displays.



Accessing the Configuration Console

Select Security Administration from the Application Switcher. The Security Administration homepage displays.



Accessing the Security Administration



Exercise 2.1: Explore Web Configuration Console

In this exercise, you will access Web Configuration Console.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps



Verify you are logged in to the Training Desktop. If not, log in following instructions provided by your course instructor.

Note: If you are taking this course as self-directed learning, follow the instructions on the course Lab On Demand screen.

Part 1: Log in to Infor OS Portal/Ming.le

1. Double-click the **Infor Ming.le** icon on the **Landmark 11 Tech V6 Desktop**. The **Infor OS** window opens.
2. Type *IN01@gdeinfor2.com* in the **someone@example.com** field.
3. Type *Tr@in123* in the **Password** field.
4. Click Sign In. The Welcome to Infor OS Portal/Ming.le™ window opens

Part 2: Access the Configuration Console for application configuration

1. Click the **App Menu** icon.



2. Click **GHR**. The **Quick Links** home page displays.
3. If the left navigation pane menu does not appear, click the toggle menu to expand the left navigation pane.



4. In the left navigation pane, click the drop-down arrow beside **Employee**. A list of roles displays. This is the **Application Switcher**.
5. Select **Configuration Console**. The **Configuration Console** home page displays.
6. Select **Configuration**. The Configuration menu expands.
7. Select **Console**. This application is used to edit existing configurations.
8. Select **Create**. This application is used to create new user interface configurations.
9. Select **Master**. This application is used to view a list of all configurations in your system. You can perform administrative functions such as sorting, searching, and comparing records.
10. In the left navigation pane, select **Personalization**. The personalization menu expands.

11. Select **Console**. This is used to edit existing personalizations.
12. Select **Create**. This is used to create new user interface personalizations.
13. Select **Master**. This is used to view a list of all personalizations and perform administrative functions.
14. In the left navigation pane, select **Report**. The report menu expands.
15. Select **Console**. This is used to edit existing reports.
16. Select **Create**. This is used to create new reports, lists, pages, and static reports.
17. Select **Master**. This is used to view a list of all reports and perform administrative functions such as sorting, searching, purging, and reassigning reports.
18. Select **Basic Access** to expand the menu.
19. Select **DataArea** to expand the menu.
20. Select **Mime Types**. A list of delivered MIME types display. You can restrict certain MIME types or create new MIME types.
21. Select **Time Zones**. A list of time zones displays.
22. Select **Utilities** to expand the menu. The Utilities section is used for functions such as importing, exporting, deleting, clearing, and validating.
23. Select **Utilities** again to collapse the menu.
24. Select **LPL Viewer**. Use this tool to view the current Landmark Pattern Language (LPL) delivered by Infor. This includes views of the business logic and user interface.

Part 3: Access Security Administration

1. Click the drop-down arrow beside **Configuration Console** in the **Application Switcher**.
2. Select **Security Administration**. The **Security Administration** home page display.
3. Select **Configuration > Basic Access**. View, create, and maintain security classes.
4. Select the **Standard Template** Tab. A list of delivered security classes display. **Note:** Delivered security classes have the appendix _ST.
5. Double click on the **Security Class** in the first row. Security rules can be viewed here.
6. Select **User Management**.
7. Select **Actor**. A list of actors displays.
8. Select **Role**. A list of roles displays.
9. Select **Identity**. A list of identifies displays.
10. Minimize the **Chrome** browser to return the desktop.



Check your understanding



What navigation path is used to access the Configuration Console for application configurations?





What options are available in the DataArea when accessing the Configure application form?





What options are available when accessing the Configuration Console for security?





Lesson 3: Application configurations overview

Estimated time

2 hours

Learning objectives

After completing this lesson, you will be able to describe how to configure application objects and settings. In this lesson, you will:

- Identify application objects that can be configured.
- List examples of how user interface objects can be configured.
- Identify business class components that can be configured.
- Describe the functionality of using Control (Ctrl) + Shift + left click.
- Describe how to use the LPL Viewer.

Topics

- Application objects
- Business classes
- Using Ctrl + Shift + left click
- Using the LPL Viewer
- Check your understanding

Application objects

An application uses several types of user interface objects to enable users to interact with the application. In the Configuration Console, you can configure a variety of application objects as well as some application settings. Application configurations enable you to change features and functionality of a data area module, as well as control the look and feel of module user interface objects.

When users work with a Landmark application, the application starts with menus. Selecting a menu item will launch another menu, a page, a composite form, a list, or a form.

You can configure the following:

- Forms
- Lists
- Composite forms
- Pages
- Menus

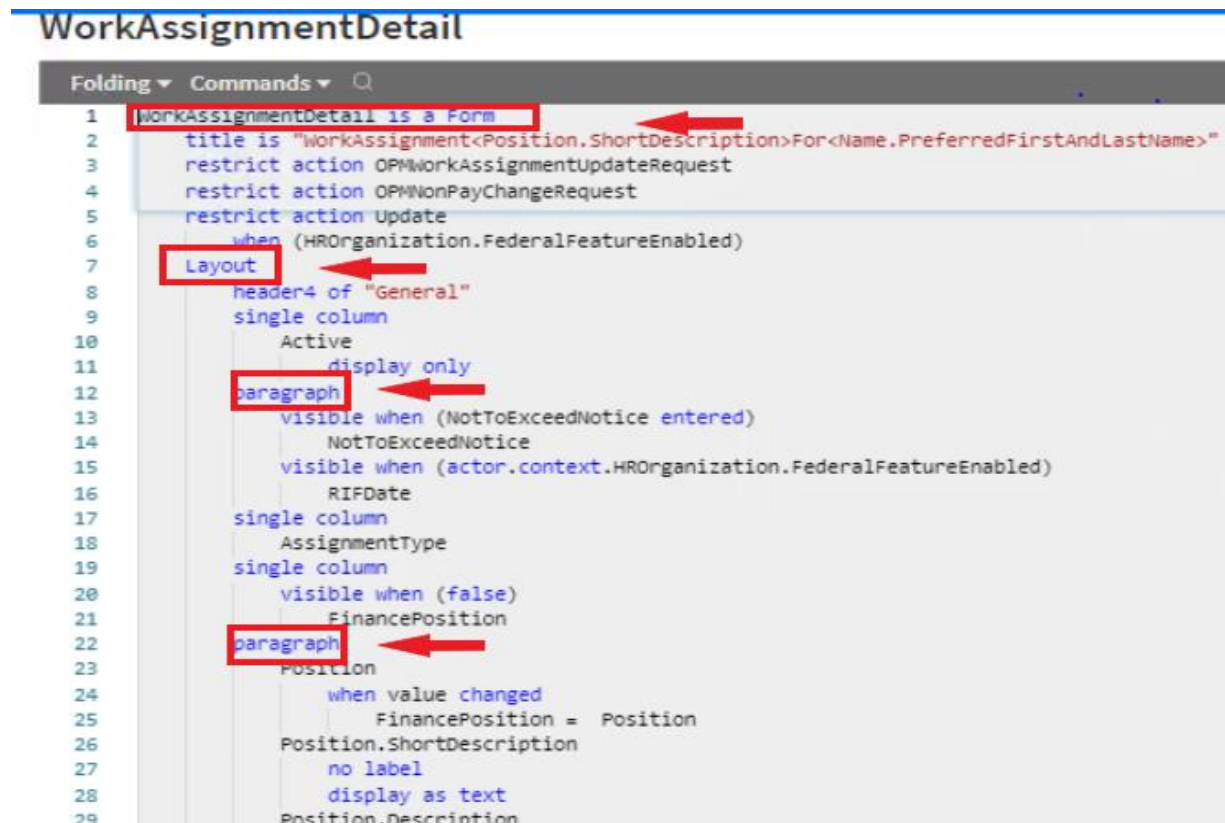
Forms

A form enables you to create, view, and modify records. The following image displays a record of a work assignment for a selected resource.

The screenshot shows a configuration console with two tabs: 'Detail' (selected) and 'Compensation'. Under the 'Detail' tab, there is a 'General' section. It contains a checked 'Active' checkbox, an 'Assignment Type' dropdown menu, and a 'Position' field with a red asterisk. Below the 'Position' field, there is a search box containing '27' and a magnifying glass icon, followed by the text 'Sales Mgr A' and 'Sales Mgr A'. Below this, there is a 'Job' section with the text '12 SALES MANAGER Sales Manager'. At the bottom, there is an 'Organization Unit' section with a search box containing '6' and a magnifying glass icon, followed by the text 'Outside Sales'.

Work assignment for a selected record

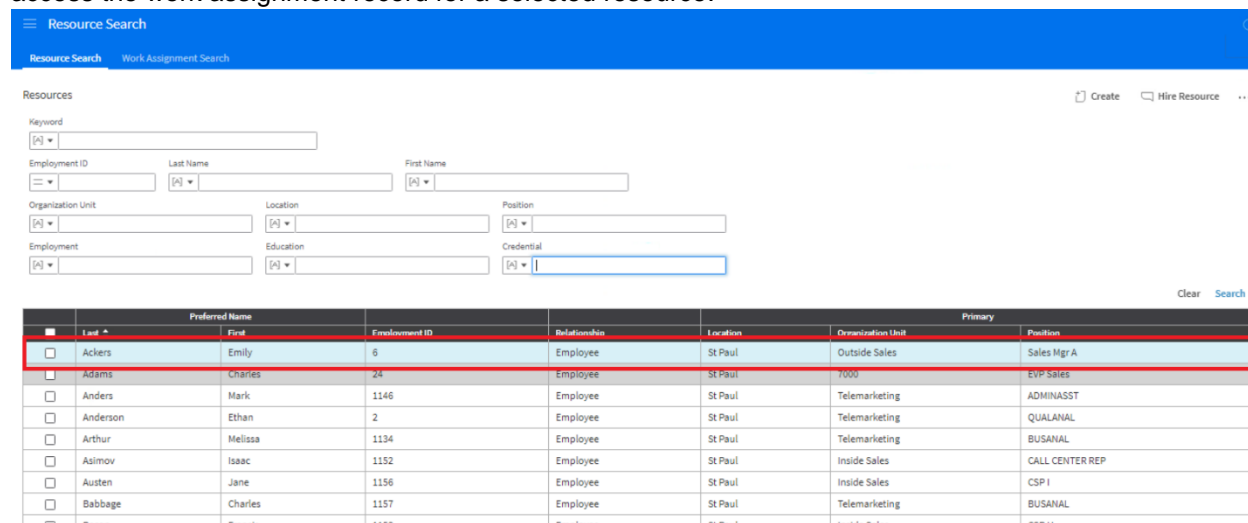
The following image displays the LPL source code specifying the layout for entering record data.



LPL source code for a form example

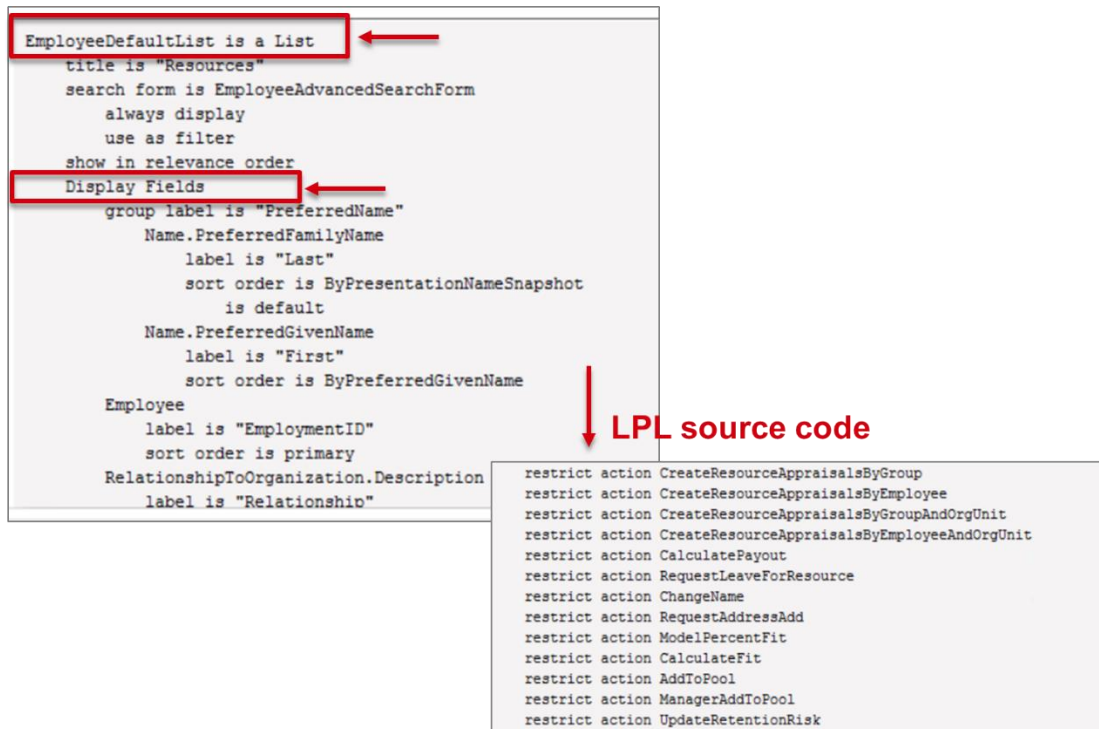
Lists

A list displays records and enables you to access a single record. The following image shows how you access the work assignment record for a selected resource.



List example

In the following image, the LPL source code for a list specifies the data to be displayed in the list field columns. It also specifies the actions that are restricted for the list.



LPL source code for a list example

Composite forms

A composite form displays a set of tabs that enable you to access two or more lists and/or forms. Tabs within composite forms can access forms, composite forms, lists, and multi-lists.

The following image is an example of a composite form for a resource profile.

Tabs

The image shows a web interface for a resource profile. On the left, a sidebar contains a list of tabs: 'At A Glance' (highlighted), 'Work Assignments', 'Personal Information', 'Dates & Service', 'Compensation', 'Deductions', 'Work Preferences', 'Performance', 'Talent Profile', 'Fit Analysis', 'Goals', 'Activities', 'Checklists', 'Mentors', 'Take Notes', 'Employee Relations', and 'Benefits'. The main content area is titled 'Emily Ackers - Sales Mgr A' and includes a profile picture, email address 'user01@pdu.com', and various fields for employment details. The 'Dates & Service' section shows birthdate 'March 18', start date '1/1/2015', and years of service '7.51'. The 'Personal Information' section includes gender 'Female', a 'Smoker' checkbox, and ethnicity 'Black or African American'. A red box labeled 'Composite Form' highlights the main content area.

Composite Form

Composite form example

In the following image, the LPL source code specifies panel controls and the available actions.

```
LRCEmployee is a CompositeForm
  is primary
  title is "<Employee.Name.PreferredFirstAndLastName>'sProfile"
  show panel control on left
  restrict action OPMGenerateAndViewSF75AdministratorDocument
  restrict action OPMEmployeeUpdateRequest
  restrict action OPMMassFurloughRequest
  restrict action OPMMassReturnFromFurloughRequest
  restrict action EthnicityAndRaceSelfIdentificationEmp
    when (actor.context.HROrganization.FederalFeatureEnabled)
  restrict action Update
    when (actor.context.HROrganization.FederalFeatureEnabled)
  restrict action Terminate
    when (actor.context.HROrganization.FederalFeatureEnabled)
  restrict action Resignation
    when (actor.context.HROrganization.FederalFeatureEnabled)
  restrict action RehireResource
    when (actor.context.HROrganization.FederalFeatureEnabled)
  Actions
    action is save
    action is RehireResource
      action icon is request
      label is "Rehire"
      hide when invalid
```

LPL source code for a composite form example

Pages

Like composite forms, pages display a set of tabs that enable you to access lists or forms. Pages are often used to display two or more lists.

The following image is an example of a page, which includes tabs for accessing the Resource Search list and the Work Assignment Search list:

Last	First	Employment ID	Relationship	Location	Organization Unit	Position
Ackers	Emily	6	Employee	St Paul	Outside Sales	Sales Mgr A
Adams	Charles	24	Employee	St Paul	7000	EVP Sales
Anders	Mark	1146	Employee	St Paul	Telemarketing	ADMINASST
Anderson	Ethan	2	Employee	St Paul	Telemarketing	QUALANAL

Page example

In the image below, the LPL source code for the page identifies for each tab (panel), both the name of the list or form accessed and its business class.

```
ResourceSearchPage is a Page
  title is "ResourceSearch"

ResourceSearch is a Panel
  mouse over text is "Search,View&ManageResources"
  business class is Employee
  list is EmployeeDefaultList

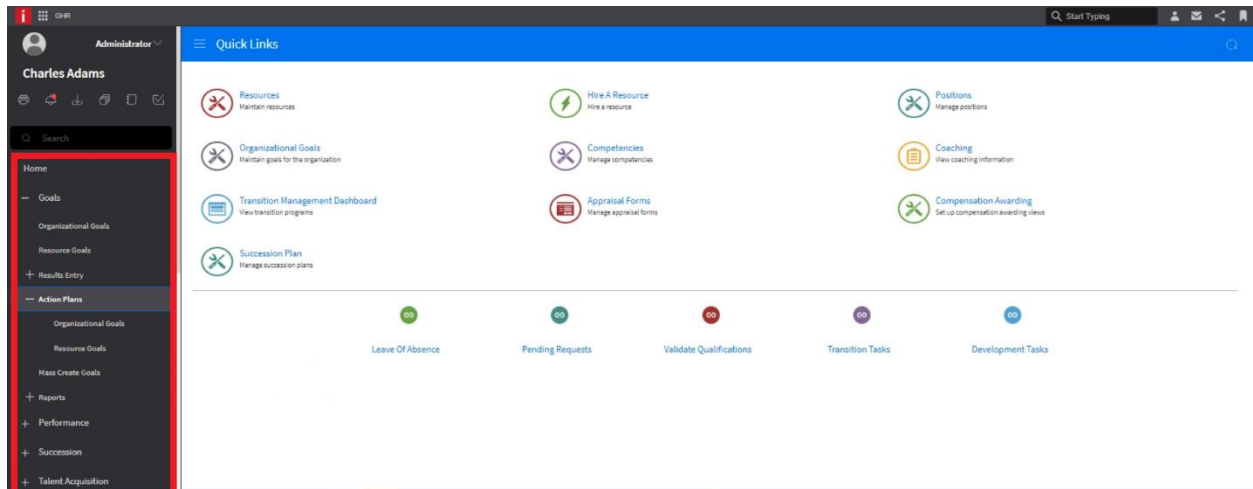
WorkAssignmentSearch is a Panel
  mouse over text is "Search,View&ManageWorkAssignments"
  business class is WorkAssignment
  list is EmployeeWorkAssignmentsSearchAdmin
```

LPL page example

Menus

Menus are used to navigate between different user interface objects. Use menus to access other menus, pages, composite forms, lists, and forms.

Menus help users easily navigate to related application objects.



Landmark Web User Interface menu items

Configuring user interface objects

Most of the configurations an organization makes focus on adapting the user interface to better reflect the way they do business. Examples of what you can configure for these user interface objects are in the following table:

User interface object	Configurations
Menus	<ul style="list-style-type: none">• Add or remove menu items from standard delivered menus• Modify menu titles
Pages	<ul style="list-style-type: none">• Add or remove pages• Add or remove tabs• Change tab names• Add, remove, or edit page components• Change page layout
Composite forms	<ul style="list-style-type: none">• Add or remove composite forms• Add or remove tabs• Change tab names• Add, remove, or edit composite form components• Change form layout



Business Class and Business Task

Business Classes and Business Tasks are the central components of a Landmark system. They contain the basic definitions for what data is in an application, how it is organized, how it is processed, and what actions can be performed on the data.


Business Classes define not only what data is to be stored in database table, but also what fields are available for forms and lists, and what actions can be performed on the data. The Configuration Console enables you to modify many aspects of business classes, including the following:


- List content and appearance
- Form content and appearance
- Field order and appearance
- New fields
- User actions
- User action requests and user-defined actions
- Relations

Business Tasks define a process executing against Business Class or Business Classes. Example: Business Class: Journal contains the records of a financial journal entry. Business Task: Journal Posting is a process that posts/ updates the financial account balances for the journal entry.

The following table lists the components and describes the features of business classes that are shown in the user interface and can be configured in the Configuration Console:

Business class component	Description
Lists	Lists display the records (or sometimes a subset of those records) from the database table associated with the business class. You can configure list content and appearance.
Forms	Forms enable you to view, add, modify, and delete data associated with a business class. Modifying a form configuration can include changes to the layout, fields, call out actions (actions listed on the toolbar), and restricted actions.
Fields, buttons, and check boxes	You can modify or add many of the types of individual components that appear in lists and forms, including various types of fields (user fields, compute fields, and derived fields), buttons, and check boxes (for Boolean fields).
Action Configuration and Extension	Actions within a business class can require users to supply an effective date, action reason, or action comment when the user tries to perform the action. You can change these action requirement settings.
User action requests and user-defined actions	A user action request configuration enables you to create an action and link that to a process service definition. This enables the user to trigger a much more complicated chain of events than a simple update or create. For example, an action request can result in an action being routed to several users before it is completed.

Business class component	Description
	<div> For more information, please refer to the following guides: <i>Infor Process Automation Administration Guide and Infor Process Designer Help.</i></div> <p>With user-defined actions, you can create new action requests based on the application-delivered business logic but override specific attributes.</p>
Relations	If a business class relation isn't already defined, you can add a relation from one business class to another. Once you have defined relations, you can add them to lists and forms.
Conditions	You can add conditions to a business class definition. You can use these conditions as display-only check boxes that show the status of the condition, and as conditions that control the behavior of other user interface components, such as controlling whether a field is visible or not.
Sets	A set determines how data is sorted and filtered.



Using Ctrl + Shift + left click

If you are configuring application user interface objects, you can access the object you want to configure, and then press Control (Ctrl) + Shift + left click in the object area to access the object's information dialog box.

To view the business class information about a form or the information on it, open the form and hover over the form element, or place your cursor in the field you want and press Ctrl + Shift + left click. A dialog box opens. It includes the business class, form name information, and field information.

The following graphic shows how to access the Component Information form from the Benefits form using Ctrl + Shift + left click.

The screenshot shows a web application interface for a '401(K) 3- Year Vesting - Benefit Plan'. On the left is a sidebar with a 'Main' menu containing 'Eligible', 'Deductions', 'Entry Rules', 'Termination Rules', 'Contributions', and 'Investment'. The main content area has several fields: 'Type' (Defined Contribution), 'Benefit Plan' (401(K) 3YR), 'Category' (Defined Contribution 401(k)), 'Defined Contribution Type' (401(k)), 'Start' (1/1/2015), and 'End'. A red arrow points to the '401(K) 3YR' field with the text 'Ctrl + Shift + Left Click'.

Component Info

Business Class: BenefitPlan
Form Name: BenefitPlanForm
LPL View Name: BenefitPlan
Component Type: Field
View Type: ALPHAUPPER
Field Size: 20
Parent Link: this instance

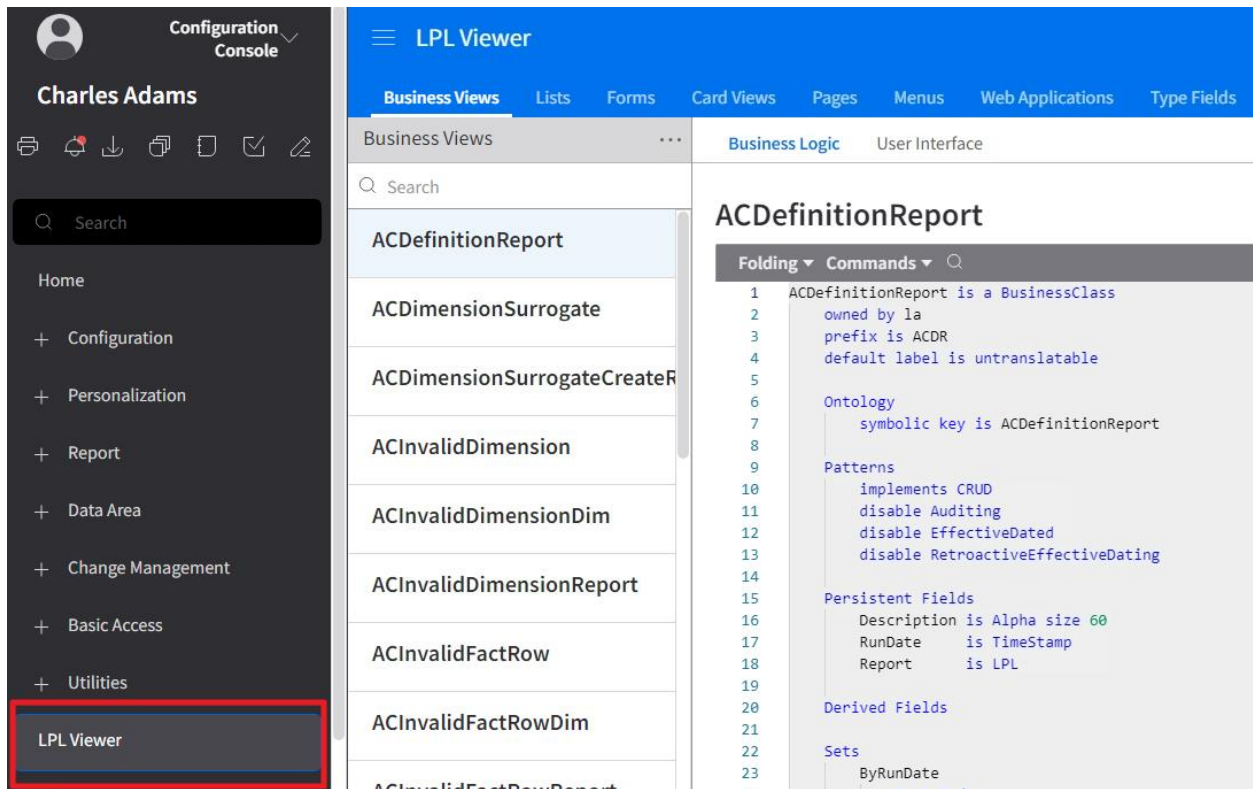
Close

Using Ctrl + Shift + left click

You can also use this functionality to view the business class and form information for an application field. This is useful when you want to link to a list or form or when you need to understand which business class a form, list, page, or field belongs to personalize or configure a list or form or create user fields.

Using the the LPL Viewer

The LPL Viewer is used to view Infor delivered LPL code.



The screenshot shows the Infor Configuration Console interface. On the left, a sidebar lists various configuration areas: Home, Configuration, Personalization, Report, Data Area, Change Management, Basic Access, Utilities, and LPL Viewer (highlighted with a red box). The main area is titled 'LPL Viewer' and displays the 'ACDefinitionReport' business class definition. The definition includes the following details:

- Business Views:** Business Views, Lists, Forms, Card Views, Pages, Menus, Web Applications, Type Fields
- Business Logic:** Business Logic, User Interface
- ACDefinitionReport**
 - Folding** (dropdown), **Commands** (dropdown), **Q** (search)
 - 1 ACDefinitionReport is a BusinessClass
 - 2 owned by la
 - 3 prefix is ACDR
 - 4 default label is untranslatable
 - 5
 - 6 **Ontology**
 - 7 symbolic key is ACDefinitionReport
 - 8
 - 9 **Patterns**
 - 10 implements CRUD
 - 11 disable Auditing
 - 12 disable EffectiveDated
 - 13 disable RetroactiveEffectiveDating
 - 14
 - 15 **Persistent Fields**
 - 16 Description is Alpha size 60
 - 17 RunDate is TimeStamp
 - 18 Report is LPL
 - 19
 - 20 **Derived Fields**
 - 21
 - 22 **Sets**
 - 23 ByRunDate
 - 24

Using LPL Viewer



Exercise 3.1: Use Ctrl + Shift + Click and the LPL Viewer

In this exercise, you will use the Ctrl + Shift + click and the LPL viewer to view Infor delivered application form code.

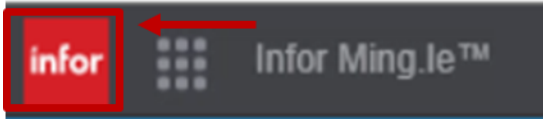
Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Use Ctrl + Shift + click to find the business class and form name

1. Maximize the **Chrome** browser (Ensure that you are logged in to **Infor OS Portal/Ming.le** for this exercise. If not, use IN01@gdeinfor2.com / Tr@in123.)
2. Click the **App Menu** icon in the **Infor Ming.le™** header. A dialog box opens and displays icons.



3. Click the **Infor CloudSuite Financials & Supply Management** icon. **Infor CloudSuite Financials** opens to the **Requester** homepage.
4. If the left navigation pane menu does not appear, click the toggle menu to expand the left navigation pane.



5. Click the **down arrow** beside **Requester**. This is the **Application Switcher**.
6. Select **Controller** from the **Application Switcher**. The **Controller** homepage displays.
7. Select **Setup > Currency > Currency Maintenance**. The **Currency Setup** page opens.
8. Press **Ctrl + Shift + click** next to the **Currency Maintenance** menu item on left. The Component Information dialog box opens.
9. Review the Menu Name: **CurrencySetup.CurrencyMaintenance** Component Information.
10. Click **Close**.
11. Press **Ctrl + Shift + click** next to the **Currency Setup**. The Component Information dialog box opens.
12. Review the module of **currency** and page name **CurrencyDefault** Component Information.
13. Click **Close**.
14. Double-click/open the **CAD** currency record. The form Currency displays.
15. Press **Ctrl + Shift + click** next to the **Currency**. The **Component Info** dialog box opens.
16. Review the Business Class: **Currency**, Module: **currency** and Form Name: **Currency**.
17. Select **CreateConfiguration**. Another tab opens with Configuration Console> Configuration displaying the object form Currency ready to edit.
18. Select **Edit**.
19. Select the **end of Currency field line** within LPL.
20. Hit **Enter** key.
21. Hit **Tab** key.
22. Type *label is default*.
23. Hit **Enter** key.
24. Hit **Tab** key.
25. Type *bold*.
26. Hit **Enter** key.
27. Type *color of red*. The LPL code should match below. The color of red, bold and label is default are all characteristics of the Currency field when completed.

```

Currency is a Form
  is primary
  propagate as a drill
  title is "Currency"
  Layout
    single column
    Currency
      label is default
        bold
        color of red
    Description
    FormsExpression
    NumberOfDecimals
    paragraph
    ISOCode
    ISOCodeNumber

```

28. Select **Submit**.
29. Select the **Master** menu item on left panel. The Master Configuration List of configured objects will display for FSM data area only.
30. Press **Ctrl + Shift + click** next to the **Master Configuration List**. The Component Information dialog box opens.
31. Review the Business Class: **ConfigEntity**, Module: **repository** and List Name: **MasterConfigurationList**.
32. Click **Close**.
33. Select the **Basic Access** menu item on left panel.
34. Select the **User Interface > Forms**. The User Forms list of configured forms will display for the FSM data area only.
35. Review the **Actor** field is empty in list. A configuration is void of an Actor value, but a personalization is assigned the actor value for which the LPL applies.
36. Press **Ctrl + Shift + click** next to the **User Forms**. The Component Information dialog box opens.
37. Review the Business Class: **UserForm**, Module: **repository** and List Name: **ConfigConsoleList**.
38. Click **Close**.
39. Click **Close** on the **User Forms / Configuration Console** tab.
40. Select **Setup > Currency > Currency Maintenance**. The **Currency Setup** page opens
41. Double-click/open the **CAD** currency record. The form Currency displays.
42. Review the **Currency** field is now **Bold and RED**.

Part 2: View LPL using the LPL Viewer

1. Select **Configuration Console** from the **Application Switcher**.
2. Using the left navigation pane, click **LPL Viewer**.
3. Click the **Forms** tab.
4. Select **Currency** from the **Business View** drop-down list.

Note: You can also type *Currency* in the **Business View** field.

5. Type *Currency* from the **Business Form** field.
6. Click **Search**.
7. Click **Currency** in the results list.
8. Review the LPL code for the Currency form. This is the base.
9. Close the **Chrome** browser.

Configuration Console Reference Guide

When using Web Configuration Console, you will create or edit Landmark Pattern Language (LPL).

The Configuration Console Reference Guide is used by developers, administrators, and power users who use Configuration Console for application and security configurations. This guide is a reference for Landmark Pattern Language (LPL) syntax, which can be used to personalize or configure Landmark applications.

To access the LPL Reference Guide, navigate to <https://docs.infor.com>. Select Technology Platform > Landmark Technology > Infor Landmark Technology Library > Developer > Landmark Pattern Language (LPL) > About this Guide.

Click the link Configuration Console Reference Guide: Landmark Pattern Language (LPL) to access and download the syntax guide used to help you understand LPL.

You can also use this site to access LPL examples by use case and examples by component.

The screenshot displays the Infor Landmark Technology Library (Cloud) documentation page for Landmark Pattern Language (LPL). The page features a dark blue header with the Infor logo and navigation links. A sidebar on the left contains a list of categories, including 'What's New', 'Administrator', 'User', 'Developer', and 'Process Designer'. The main content area on the right includes sections for 'About this guide', 'Intended audience', 'Related documents', and 'View document'. The 'View document' section highlights the link 'Configuration Console Reference Guide: Landmark Pattern Language (LPL)'.

Accessing Configuration Console Reference Guide

Lists

```
ListDefinition ::=
  <ListName> is (a List | a[n] <ListName> List | an AuditList)
    [is primary]
    [is drill target [for <FullFieldName>]]...
    [propagate as a drill]
    [title is <Message>] // defaults to ListName
    [is report [for <WebAppName>[, <WebAppName>]]...]
    [show <#> lines]
    [show result set size]
    [default Alpha filter operator is (contains | starts with | equals)] // default is 'contains'
    [keyword search field is <RelatedField>]
      [label is <Message>]
      [(always | initially) display]
      [disable translation filtering]
    [(always | initially) display search] // valid for search form and filter
    [( search form is (<FormName> | inline)
      | search field is <FullFieldName>...)]
      [label is <Message>] // valid on 'search field is...' only
      [use as filter]
      [always display]
      [disable translation filtering]
      [Layout] // valid on inline Form only
    <FormLayout>...
  [Required Search Parameters]
    <RelatedField>...
      [initial value is <RelatedValue>]
  [implements LongRunningList]
  [implements InlineCreate]
    [allow form create]
    [copy mutable fields only] // default copies all persistent fields in list
  [implements FixedSizeList]
    [show <#> lines] // default is 10 lines
  [implements RepresentativeImageView] // business class must have a representative image defined
  [implements AuditCompare] // valid only for AuditList
    show changed values on right
  [implements TreeView]
```

LPL Syntax documentation for Lists

Check your understanding



Match each of the following business class components with the description. The possible business class components are: **fields**, **buttons**, **check boxes**, **lists**, **composite forms**, and **forms**.



Description	Business class component
Displays the records from the database table associated with the business class	
Enables you to view, add, modify, and delete data associated with a business class	
Modifies or adds many of the types of individual components that appear in lists and forms	
Displays a set of tabs to access two or more lists and/or forms	



What functionality allows you to view the business class and form information?





What do you use to view Infor delivered LPL code?





Lesson 4: Making application user interface configurations

Estimated time

6.5 hours

Learning objectives

After completing this lesson, you will be able to describe how to make application user interface configurations. In this lesson, you will:

- Describe the different ways to change the look and feel of lists.
- Describe the different ways to change the way you work with lists.
- Describe the different ways to configure forms and composite forms.
- Describe the difference between initial value rule and when value changed.
- Describe the different ways to configure menus.
- Describe the different ways to configure pages.

Topics

- Configuring lists
- Card views
- Configuring forms and composite forms
- Configuring menus
- Configuring pages
- Check your understanding

Configuring lists

Lists are components that you can configure as part of the configuration of pages and business classes. A list displays the records (or sometimes a subset of those records) from a database table.

You can change the look and display of lists as follows:

- Add a field to a list
- Remove a field from a list
- Reorder a field on a list
- Define a list column sort
- Define a sort column for a list
- Add an alert to a list

You can change the way you work with lists as follows:

- Launch an alternate form
- Call out actions
- Restrict actions



If you configure a list, every page that uses the list will reflect the configuration.



Scenario: Change the look and display of lists

The **Purchasing Manager** for ABC Company wants to change the look of how the **Purchase Order** list displays. The **Purchasing Manager** wants the **Application Administrator** to configure the **Purchase Order** list as follows:

- Add an additional field
- Remove fields not used
- Add alerts for overdue shipments
- Change the default a sort order



Exercise 4.1: Change the look and display of lists using Web Configuration Console

In this exercise, you will change the look and display of lists.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Log in to Infor OS Portal/Ming.le on the Landmark 11 Tech V6 Desktop and review the purchase order list

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Purchasing Manager** from the Application Switcher.
3. Click **Manage Purchase Orders** in the menu bar. The **Unreleased Purchase Orders** form opens.
4. Click the **All** tab. A list of purchase orders displays.
5. Review how the purchase order list displays.

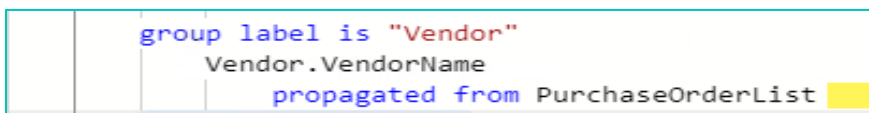
Part 2: Use Ctrl + Shift + click to find the business class and list name

1. Click beside the list name **Purchase Orders**.
2. Press **Ctrl + Shift + click**. The **Component Infor** dialog box opens.
3. Note the business class name is **PurchaseOrder**.
4. Write the list name (LPL View Name) is **PurchaseOrders**.
5. Click **Close**.

Part 3: Add a field to list

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page display.

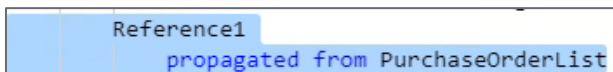
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **List** in the **Configure an Existing Component** column. The **Configure List** form opens.
4. Type or select **PurchaseOrder** from the **Business Class** drop-down list.
5. Click **OK**,
6. Type or select **PurchaseOrders** from the **List** drop-down list.
7. Click **Submit**.
8. The **Purchase Orders** configured list will display
9. Select **Edit**.
10. Place the cursor at the end of the **Vendor.VendorName** characteristic of **propagated from PurchaseOrderList**.



11. Hit **Enter**. Hit the **Backspace** key twice.
12. Type *group label is "Vendor"*
13. Hit **Enter**.
14. Hit **Tab** key.
15. Type **Vendor.OnHold**
16. Click **Submit**. Your changes are saved.

Part 4: Remove fields from a list

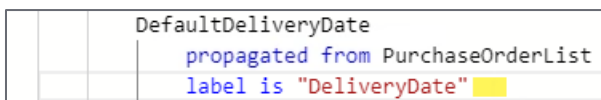
1. Select **Edit**.
2. Highlight **Reference1** and **propagated from PurchaseOrderList** lines.



3. Click the **Delete** key. **Reference 1** field will be removed.
5. Click **Submit**. Your changes are saved.

Part 5: Add alerts to a list

1. Select **Edit**.
2. Place the cursor at the end of **label is "DeliveryDate"** line. Hit the **Enter** key.



3. Type **raise yellow alert when (OverdueShipment)**.

```

DefaultDeliveryDate
  propagated from PurchaseOrderList
  label is "DeliveryDate"
  raise yellow alert when (OverdueShipment)

```

4. Click **Submit**. Your changes are saved.

Part 6: Define a default sort column for a list

1. Select **Edit**.
2. Remove the current sort order and default lines from the PurchaseOrder by deleting the highlighted lines.

```

PurchaseOrder
  propagated from PurchaseOrderList
  link is PODashboard
  raise red alert when (PurchaseOrderReleaseMessages entered)
  mouse over text is "<PurchaseOrderReleaseMessages>"
  sort order is primary
  is default descending

```

3. Locate the **ShipToLocation**. Edit the LPL to make this field the default sort of **primary** and add **is default descending**.

```

ShipToLocation
  propagated from PurchaseOrderList
  label is "ShipTo"
  sort order is primary
  is default descending

```

4. Click **Submit**. Your changes are saved.

Part 7: Validate the configurations

1. Select **Purchasing Manager** from the **Application Switcher**.
2. Click **Manage Purchase Orders** in the menu bar. The **Unreleased Purchase Orders** form opens.
3. Click the **All** tab. A list of purchase orders displays.
4. View the change in the sort order, the **On Hold** field and its location in the list, and the yellow alert in the **Delivery Date** field.
5. Click the **Home** icon to return to the **Purchasing Manager** homepage.
6. Leave the **Chrome** browser open for the next exercise.



Scenario: Add a compute field to a list

The **Human Resources Administrator** at ABC Company wants to have the **Resources** list display with a **Total Compensation** field which computes the pay for all work assignments that an employee is assigned.



Exercise 4.2: Add a compute field

In this exercise, you will add a compute field to a list using Web Configuration Console.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

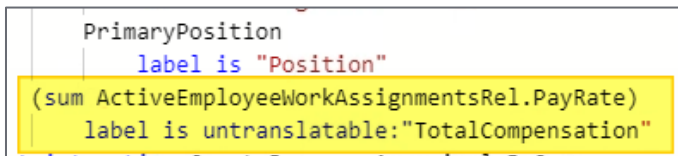
Part 1: View the resource list and determine the business class and list name

1. Select **App Menu > GHR** icon.
2. Select **Administrator** from the **Application Switcher**. The **Quick Links** form displays.
3. Click the **Resources** quick link. The **Resource Search** form opens.
4. Click **Search** to load the application data.
5. View the list at the bottom of the form.
6. Hover the mouse over the column headings (for example, Preferred Name).
7. Press **Ctrl + Shift + click**. The **Component Info** dialog box opens.
8. Note the business class is Employee
9. Note the list name (LPL View Name) is EmployeeDefaultlist.
10. Click **Close**.

Part 2: Add a compute field to the list

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **List** in the **Tailor User Interface** column. The **Configure List** form opens.
4. Type or select **Employee** from the **Business Class** drop-down list.
5. Type or select **EmployeeDefaultList** from the **List** drop-down list.
6. Click **Submit**.
7. The **EmployeeDefaultList** configured list will display.
8. Select **Edit**.

9. Place the cursor at the end of the **label is "Position"** characteristic of the **PrimaryPosition** field.
10. Hit **Enter**. Hit the **Backspace** key twice.
11. Type *(sum ActiveEmployeeWorkAssignmentsRel.PayRate)*.
12. Hit **Enter**.
13. Hit **Tab** key.
14. Type *label is untranslatable:"TotalCompensation"*.



The screenshot shows a configuration editor for the **PrimaryPosition** field. The text **label is "Position"** is highlighted in red. Below it, the text *(sum ActiveEmployeeWorkAssignmentsRel.PayRate)* is entered. Below that, the text *label is untranslatable:"TotalCompensation"* is entered. The entire configuration area is highlighted in yellow.

15. Click **Submit**. Your changes are saved.

Part 3: Validate the configurations

1. Select **Administrator** from the **Application Switcher**. The **Quick Links** form displays.
2. Click the **Resources** quick link. The **Resource Search** form opens.
3. Click **Search** to load the application data.
4. View the list at the bottom of the form. Confirm the new compute field **Total Compensation** displays in the list.
5. Keep the **Chrome** browser open for the next exercise.



Demo: Review the way you work with lists using Web UI Configuration Console LPL viewer

This demonstration shows how to use work with InlineCreate in list object.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

Part 1: View the purchase order form and determine business class and list name

1. Maximize the **Chrome** browser (Ensure that you are logged in to **Infor OS Portal/Ming.le** for this exercise. If not, use IN01@gdeinfor2.com / Tr@in123.)
2. Verify you are in **App Menu > Infor CloudSuite Financials & Supply Management**.
3. Verify **Purchasing Manager** is selected from the **Application Switcher**.
4. Click **Manage Purchase Orders**.
5. Click the **Unreleased** tab.
6. Open **<a purchase order>**. The **Purchase Order Detail** form opens.
7. Click the **Lines** tab.
8. Click the **Create** icon.
9. Select **Create** action in the list. The **Line Detail** form opens. This is where you create a new line. You want to be able to create a new line from the **Purchase Order Detail** form.
10. Click **Back** to return to the **Purchase Order Detail** form.
11. Click the **Create** icon.
12. Select the **Add Row** action in the list. This is inline create LPL feature. This allows the user to add a line within the list.
13. Press **Ctrl + Shift + click** in the list header. The **Form Information** dialog box opens.
14. Write the business class name here. _____
15. Write the list name here. _____
16. Click **Close**.

Part 2: Review LPL code for InlineCreate

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page display.
2. Select **LPL Viewer**. The **LPL Viewer** page opens.
3. Select **Lists** tab.
4. Type **HeaderListOfLines** in the **Business List** box.

5. Hit **Enter**.
6. Select **HeaderListOfLines** object.
7. **OK**.
8. Review lines **implements InlineCreate** and **allow form create**. This enables the Add Row action feature highlighted in part 1. Adding this LPL to a list enables the user's ability to add a line where applicable in a list.
9. Review line *form is* **PurchaseOrderLineMainComposite**. This enables the Create action to launch the form. Changing this form reference will result in the new referenced form to launch on Create action.
10. Minimize the **Chrome** browser to return the **Landmark 11 (Landing Server)** desktop.

Configuring forms and composite forms

A form enables you to view, add, modify, and delete data associated with a business class. Forms display content using columns, headings, paragraphs, tabs, and other configurable components. Modifying a form component can include changes to the following:

- Layout
- Fields
- Called out actions
- Restricted actions
- Delivered action requests

Composite forms

A composite form is a type of form that contains many forms as form panels and/or with child/dependent lists as panels.

Configuring buttons

The button component allows you to add buttons to form. You can create buttons for a variety of purposes including external links, navigation links, and related action links. The appearance of this component can be a standard rectangular button or a web page style link.





Scenario: Configure forms

The **Purchasing Manager** at ABC Company wants the **Application Administrator** to configure the **Purchase Order** form as follows:

- **Reference 1** field is required
- Add the **Freight Terms** field to the **Purchase Order Main** form
- The **Purchase Order Date** field is a restricted field, so the date is always greater than or equal to the system date
- Add a button to the **Purchase Order** header to allow a user to go to the **Open To Receive Lines For Purchase Order** form



Exercise 4.3: Configure forms

In this exercise, you will configure a form.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

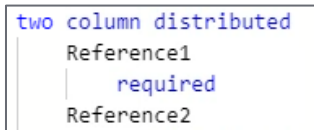
Part 1: View a purchase order and determine the business class and form panel name

1. Confirm you are connected to **GHR** in **InforOS Portal/Ming.le**.
2. Select **App Menu >CloudSuite Financials & Supply Management** icon.
3. Select **Purchasing Manager** from the **Application Switcher**.
2. Click **Manage Purchase Orders**. The **Unreleased Purchase Order** form opens.
3. Click the **All** tab.
4. Double-click **<a purchase order>** to open it.
5. View the purchase order for the following:
 - **Purchase Order Date** field
 - **Reference 2** field
6. Click the **Header Details** tab.
7. Review where the **Freight Terms** field displays.
8. Click on the **Main** tab.
9. Hover the mouse over the **Main** form.
10. Press **Ctrl + Shift + click**. The **Component Info** dialog box opens. **Note:** This is a composite form.
11. Using information in the **Parent Component Info** section, confirm the business class is **PurchaseOrder**.

12. Using information in the **Form Panel Info** section, confirm the Panel Form Name is **PurchaseOrderEntryMain**.
13. Click **Close**.

Part 2: Add a required field

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Form** in the **Tailor User Interface** column. The **Configure Form** form opens.
4. Type or select **PurchaseOrder** from the **Business View** drop-down list.
5. Type or select **PurchaseOrderEntryMain** from the **Form** drop-down list.
6. Click **Submit**. The LPL for the **PurchaseOrderEntryMain** configured form will display.
7. Select **Edit**.
8. Scroll to **Reference1** in the LPL code.
9. Place the cursor at the end of **Reference1**.
10. Hit **Enter**.
11. Hit **Tab** key
12. Type *required*.

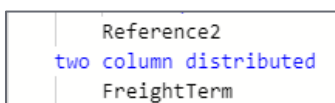


```
two column distributed
Reference1
  required
Reference2
```

13. Click **Submit**. Your changes are saved.

Part 3: Add a field

1. Select **Edit**.
2. Scroll to **Reference2** in the LPL code.
3. Place the cursor at the end of **Reference2**.
4. Hit **Enter** to create a new line.
5. Hit the **Back** key once.
6. Type *two column distributed*.
7. Hit **Enter**
8. Hit **Tab** Key.
9. Type *FreightTerm*.



```
Reference2
  two column distributed
  FreightTerm
```

10. Click **Submit**. Your changes are saved.

Part 4: Add a button

1. Select **Edit**.
2. Scroll to **FreightTerm** in the LPL code.
3. Place the cursor at the end of **FreightTerm**.
4. Hit **Enter** to create a new line.
5. Type *button of untranslatable:"OpenToReceive"*.
6. Hit **Enter**.
7. Hit **Tab** Key.
8. Type *link is OpenToReceiveLinesForPurchaseOrder*.
9. Hit **Enter**
10. Type *display as link*.

```
two column distributed
  FreightTerm
    button of untranslatable:"Open To Receive"
      link is OpenToReceiveLinesForPurchaseOrder
      display as link
```

11. Click **Submit**. Your changes are saved.

Part 5: Add a field constraint

1. Select **Edit**.
2. Scroll to **PurchaseOrderDate** in the LPL code.
3. Place the cursor at the end of **PurchaseOrderDate**.
4. Hit **Enter** to create a new line.
5. Hit **Tab** Key.
6. Type *constraint (PurchaseOrderDate >= current date)*.

```
two column distributed
  PurchaseOrderDate
    constraint (PurchaseOrderDate >= current date)
```

7. Click **Submit**. Your changes are saved.

Part 6: Validate the configurations

1. Select **Purchasing Manager** from the **Application Switcher**.
2. Click **Manage Purchase Orders**. The **Unreleased Purchase Order** form opens.
3. Click the **All** tab.
4. Double-click **<a purchase order>** to open it.

5. Review the following:
 - **Reference 1** field has a red asterisk (*) indicating it is a required field.
 - **Freight Term** field is added to the purchase order main.
 - **Open To Receive** displays as a link.
6. Click **Manage Purchase Orders**.
7. Click the **All** tab.
8. Click **Create**. The **Purchase Order Detail** form opens.
9. Type *4000* in the **Company** field.
10. Type *100* in the **Buyer** field.
11. Type *1* in the **Vendor** field.
12. Type *MAIN* in the **Ship To** field.
13. Type or select *<yesterday's date>* in the **Purchase Order Date** field.
14. Click **Save**. A dialog box opens in the **Reference1** field, with the message "Field is required by configuration".
15. Type *Test* in the **Reference 1** field.
16. Click **Save**. A dialog box opens in the **PurchaseOrderDate** field, with the message "Invalid Data: User Configured Constraint Purchase order date must be greater than or equal to today's date."
17. Type *<today's date>* in the **Purchase Order Date** field.
18. Click **Save**. The purchase order is successfully created.
19. Click **Open To Receive**. The **Open To Receive Lines** form opens.
20. Click **Home** to return to the **Purchasing Manager** homepage.
21. Keep the **Chrome** browser open for the next exercise.

Pinning or restricting actions to a form's toolbar

The Configuration Console gives you the ability to enable which actions display within a business class's form and lists. You can make the following types of changes related to actions:

- Change which actions appear on the toolbar
- Create new action requests
- Change delivered actions requests
- Restrict actions or hide an action based on a condition

On a form level, you can configure actions that are pinned to your form's toolbar to increase efficiencies in your workflow. Examples are Print to File, Create, and Update.

Some forms in the delivered templates do not have pinned actions that you can add to, arrange, or remove to suit your business needs.



Scenario: Pin and restrict actions to the Action Reason form toolbar

The **Purchasing Manager** at ABC Company wants the **Application Administrator** to add actions and restrict actions to the toolbar on the **Action Reason** form as follows:

- **Save** and **Save and New** as pinned actions
- **Delete** is a restricted item when the action reason is active



Exercise 4.4: Pin and restrict actions to a form's toolbar

In this exercise, you will use the Web UI to define actions that display on a form's toolbar.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View an action reason code and determine the business class and form name

1. Confirm you are connected to Infor **CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Application Administrator** from the **Application Switcher**.
3. Select **Financials > Payables > Payables Setup**.
4. Select **Action Reasons**. The **Action Reasons** form opens.
5. Double-click **<an action reason>** to open it.
6. Review the action icons on the form.
7. Press **Ctrl + Shift + click**. The **Component Info** dialog box opens.
8. Confirm the business class is **ActionReason**.
9. Confirm the form name is **ActionReasonForm**.

10. Click **Create Configuration**. The Configuration form displays.
11. Click **Edit**. The Edit LPL form displays.

Part 2: Create a pinned and restricted action

1. Place cursor at end of the title line in LPL.
2. Press **Enter** to create a new line of code.
3. Update the LPL code to add the following restrict action Delete and Action block of code with the three actions.

```
ActionReasonForm is a Form
  is primary
  title is "<DerivedTitle>"
  restrict action Delete
    when (ReasonStatus.Active)
  Actions
    action is save
    action is save and close
    action is save and new
  Layout
```

4. Click **Submit**. Your changes are saved.

Part 3: Validate the configurations

1. Select **Application Administrator** from the **Application Switcher**.
2. Select **Financials > Payables > Payables Setup**.
3. Select **Action Reasons**. The **Action Reasons** form opens.
4. Double-click **<an action reason>** to open it.
5. Review the updated action icons on the form. *Note: The Save and New action will appear as you make changes to the data using the form.*
6. The **Delete** action is greyed out when an action request is not active.
7. In the left navigation pane, click **Home**. *If you receive the Unsaved Changes prompt, click No.*
8. Keep the **Chrome** browser open for the next exercise.

Initial value rule

Initial value rule allows fields to automatically populate with default values when you are adding a record to a form.



Demo: Add initial value rule

This demonstration shows how to add an initial value rule to a form. The default value of **99_Orientation** will display in the **Checklist** field.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

Part 1: View the Assign Checklist and determine business class and form name

1. Maximize the **Chrome** browser (Ensure that you are logged in to **Infor OS Portal/Ming.le** for this exercise. If not, use IN01@gdeinfor2.com / Tr@in123.)
2. Select **App Menu > GHR** icon.
2. Select **Administrator** from the **Application Switcher**. The **Quick Links** form displays.
3. Click the **Resources** quick link. The **Resource Search** form opens.
4. Click **Search** to load the application data.
5. Double-click <any record> in the list to open the Employee Profile form.
6. Click the **All Actions Menu (...)** icon. A list of options displays.
7. Select **Assign Checklist**. The **Assign Checklist** window opens.
8. Press **Ctrl + Shift + click** in the **Checklist** field. The **Field Information** dialog box opens.
9. Confirm the business class name is **Employee**.
10. Confirm the form name is **AssignChecklist**.
11. Click **Close**.
12. Click **Cancel**.

Part 2: Add initial value rule

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Form** in the **Tailor User Interface** column. The **Configure Form** form opens.
4. Type or select **Employee** from the **Business View** drop-down list.
5. Type or select **AssignChecklist** from the **Form** drop-down list.

6. Click **Submit**. The LPL for the **AssignChecklist** configured form will display.
7. Select **Edit**.
8. Scroll to **LearningChecklist** in the LPL code.
9. Place the cursor at the end of **LearningChecklist**.
10. Hit **Enter**.
11. Hit **Tab** key
12. Type *initial value is "99_Orientation"*.

```
paragraph
  LearningChecklist
    initial value is "99_ORIENTATION"
```

13. Click **Submit**.

Part 3: Validate the configurations

1. Select **Administrator** from the **Application Switcher**. The **Quick Links** form displays.
2. Click the **Resources** quick link. The **Resource Search** form opens.
3. Click **Search** to load the application data.
4. Double-click <any record> in the list to open the Employee Profile form.
5. Click the **All Actions Menu (...)** icon. A list of options displays.
6. Select **Assign Checklist**. The **Assign Checklist** window opens.
7. The **Checklist** field has a default value of **99_ORIENTATION**.
8. Click **Cancel**.
9. Click **Home** to return to the **Quick Links** page.



When value changed

You can add **when value changed** LPL syntax to a field in a configured or user-defined form. When a field value on a form is changed, you define the list of form field assignments to refresh and execute without a save action. A refresh will cause a related field or derived field to be recalculated based on the current values on the form.



Demo: Add when value changed

This demonstration shows how to add **when value changed**. In this demo, we will change the value for an employee's pay rate in the **Pay Rate** field to see how the value in the **Hourly Rate** field changes without saving it.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

Part 1: View the Pay Rate field and determine field name

1. Confirm the **Administrator** home page displays.
 2. Click the **Resources** quick link. The **Resource Search** form opens.
 3. Click **Search** to load the application data.
 4. Double-click <any record> in the list to open the Employee Profile form.
 2. Click the **Work Assignments** tab.
 3. Double-click **Sales Mgr A**. The **Work Assignment Sales Mgr A For Emily Ackers** form opens.
 4. Click the **Compensation** tab.
 5. Press **Ctrl + Shift + click** in the **Pay Information** form. Confirm the Business Class is **WorkAssignment** and the Panel Form Name is **Compensation**.
 6. Click **Close**.
 7. Press **Ctrl + Shift + click** in the **PayRate** field. Confirm the **Pay Rate** field is **WorkAssignment.PayRate**.
 8. Scroll to the **Calculated Rates For Work Assignment** section.
 9. Press **Ctrl + Shift + click** in the **Hourly** field. Confirm the **Hourly** rate field is **WorkAssignment.HourlyRate**.
- Note:** This is the value that will be refreshed.
10. Type <a new pay rate> in the **Pay Rate** field.
 11. Press **Tab**. The value in the **Hourly** does not change.
 12. Type <today's date> in the **Effective Date** field.

13. Click **Save**. The value in the **Hourly** field changes.

Part 2: Add when value changed

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Form** in the **Tailor User Interface** column. The **Configure Form** form opens.
4. Type or select **WorkAssignment** from the **Business View** drop-down list.
5. Type or select **Compensation** from the **Form** drop-down list.
6. Click **Submit**. The LPL for the **Compensation** configured form will display.
7. Select **Edit**.
8. Scroll to **Payrate** in the first paragraph of the LPL code.
9. Place the cursor at the end of **PayRate**.
10. Press **Enter**.
11. Press **Tab**.
12. Type *when value changed*.
13. Press **Enter**.
14. Press **Tab**.
15. Type *refresh HourlyRate*.
16. Press **Enter**.
17. Type *refresh PayPeriodRate*.
18. Click **Submit**.

Part 3: Validate the configurations

1. Select Administrator from the Application Switcher. The Quick Links form displays.
2. Click the **Resources** quick link. The **Resource Search** form opens.
3. Click **Search** to load the application data.
4. Double-click <any record> in the list to open the Employee Profile form.
5. Click the **Work Assignments** tab.
6. Double-click **Sales Mgr A**. The Work Assignment Sales Mgr A For Emily Ackers form opens.
7. Click the **Compensation** tab,
8. View the value in the **Hourly** field.
9. View the value in the **Pay Period** field
10. Type *<a new pay rate>* in the **Pay Rate** field.
11. Press **Tab**. The value in the **Hourly** and **Pay Period** fields updates.
12. Click **Home** to return to the **Quick Links** page. You do not need to save the record.

Configuring menus

An application uses several types of user interface objects for users to interact with the application. This starts with menus, which consist of a set of menu items. A menu item can route the user to another menu, a page, a composite form, a list, or a form.

The LPL code for menus specifies, for each menu item, its name and the menu, page, composite form, list, or form accessed by the menu item.

You can configure menus by removing menu items, changing the titles of menu items to better reflect your organization terminology, and adding menu items to access either existing or newly created pages, composite forms, lists, actions, and/or forms.





Scenario: Remove the Address Codes menu item from the Chief Financial Officer menu and add Budget Templates as a menu item

The **Chief Financial Officer** (CFO) at ABC Company would like the **Application Administrator** to simplify the menu items and add a menu item on the **Chief Financial Officer** homepage.

- The CFO does not need to see **Address Codes** as a menu item in the **Setup** menu.
- The CFO wants to add **Budget Templates** as a **Setup** menu item.



Exercise 4.5: Remove and add a menu item

In this exercise, you will delete a menu item and add a menu item.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the Controller and Budget menu

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Budget Analyst** from the **Application Switcher**.
3. Select **Budget Templates**. The Budget Template list displays.
4. Press **Ctrl + Shift + click** in the list header. The **Component Info** dialog box opens.
5. Confirm the Business class is **BudgetTemplate**.
6. Confirm the Component list name is **BudgetTemplateList**. We will use this information to add Budget Template to the CFO menu.
7. Click **Close**.
8. Select **Chief Financial Officer** from the **Application Switcher**.
9. Expand **Setup**. **Address Codes** displays as a menu item. We will remove this item from the menu.
10. Press **Ctrl + Shift + click** in the Setup menu. The **Component Info** dialog box opens. Note the name of the menu target is **GeneralLedgerSetup**.
11. Select **Create Configuration**. The **GeneralLedgerSetup** LPL code displays in a new tab.

Part 2: Remove and add menu items

1. Select **Edit**. The **Edit LPL** page opens.
2. Highlight the block of code for **Address Codes**.

3. Hit **Delete**. **Address Codes** is removed.
4. Hit **Tab** twice.
5. Type *BudgetTemplate*.
6. Hit **Enter**.
7. Hit **Tab** once.
8. Type *list is BudgetTemplate.BudgetTemplateList*.

```
GeneralLedgerSetup is a Menu
  title is "GlobalLedgerSetup"
  Menu Items
    BudgetTemplate
      list is BudgetTemplate.BudgetTemplateList
```

9. Click **Submit**. The configuration change is saved.

Part 3: Validate the configurations

1. Select **Chief Financial Officer** from the Application Switcher.
2. Expand **Setup**.
3. Click **Budget Template**. The Budget Templates list displays.
4. Close the **Budget Templates / Configuration** tab. You return to the **Component Info** screen for the **Setup** menu.
5. Click **Close**.
6. Keep the **Chrome** browser open for the next exercise.



Scenario: Add a link to a menu item

ABC company is running a hybrid deployment, with CloudSuite GHR and single tenant LSF Employee Self Service (ESS).

The **HR Administrator** at ABC Company wants to add **View Pay Checks** to the menu bar on the **Employee** homepage in GHR. When the employee selects **View Pay Checks**, the **ESS** application hosted on the LSF server will open, and the employee will view a list of their paychecks. To do this, you will:

- Configure two parameters to link to Infor Lawson payroll on the LSF server
- Identify the menu to configure
- Add a menu item
- Edit the LPL
- Verify the link from GHR to LSF is successful



Exercise 4.6: Add a link to a menu item

In this exercise, you will add a link to a menu item.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the menu bar on the Employee homepage

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **App Menu > GHR** icon. The **Employee Quick Links** page displays.
3. In the left navigation pane, view the menu. **View Pay Checks** does not display.

Part 2: Configure two parameters to link to Infor Lawson payroll

1. Select **Administration Console** from the Application Switcher.
2. Click the **Configuration Parameters** tab.
3. Select **Create > Create**. The **Configuration Parameter** form opens.
4. Type *config* in the **Component** field.
5. Type *S3_PC_PAYCHECK* in the **Key** field. This configuration will link to pay information.
6. Select **Alpha** from the **Type** drop-down list.
7. Type *250* in the **Length** field.
8. Type */lawson/xhrnet/paychecks.htm* in the **Value** field.
9. Click **Save and New**.

10. Type *config* in the **Component** field.
11. Type *S3_SERVERURL* in the **Key** field. This configuration will link to the **lsf10 server**.
12. Select **Alpha** from the **Type** drop-down list.
13. Type *250* in the **Length** field.
14. Type *https://lsf10.gdeinfor2.com* in the **Value** field.
15. Click **Save**.
16. Click **Back**. The Configuration Parameters list displays
17. Type *S3* in the **Key** filter and press **Enter**.
18. Verify the two new configuration parameters display.

Configuration Parameter List				
<input type="checkbox"/>	Component [A] ▾	Preferred Component [A] ▾	Key [A] ▾ s3	Value [A] ▾
<input type="checkbox"/>	config		MIGRATION.S3.BUCKET	
<input type="checkbox"/>	config		MIGRATION.S3.FOLDER	content
<input type="checkbox"/>	config		S3_PC_PAYCHECK	/lawson/xhrnet/paychecks.htm
<input type="checkbox"/>	config		S3_SERVERURL	https://lsf10.gdeinfor2.com



Additional configuration is required for other areas of Employee Self-Service. Please refer to the **Infor Talent Management Configuration Guide**.

Part 3: Identify the menu to configure

1. Select **Employee** from the Application Switcher.
2. Press **Ctrl + Shift + click** on **My Reviews** in the left navigation pane menu. The **Component Info** form displays.
3. Confirm the menu name is **LRCEmployeeMenu.MyReviews**. The core menu the needs to be configured is called **LRCEmployeeMenu**.
4. Click **Close**.

Part 4: Add a menu item

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Menu** in the **Application Level Components** column. The **Configure Menu** form opens.
4. Type or select **LRCEmployeeMenu** from the **Menu** drop-down list.
5. Click **Submit**. The LPL for the **LRCEmployeeMenu** displays.

6. Select **Edit**.
7. Scroll to **Benefits**.
8. Place the cursor at the end of **restrict action OPMMassReturnFromFurloughRequest**.
Note: This line is directly above **Benefits**.
9. Press **Enter**. A blank line displays above **Benefits**.
10. Press Backspace twice.
11. Type *ViewPayChecks*.
12. Press **Enter**.
13. Press **Tab**.
14. Type *link is external "<config.S3_SERVERURL><config.S3_PC_PAYCHECK>"*.

```
restrict action OPMMassReturnFromFurloughRequest
ViewPaychecks
link is external "<config.S3_SERVERURL><config.S3_PC_PAYCHECK>"
Benefits
menu is EmployeeBenefitsMenu
```

15. Click **Submit**.

Part 5: Validate the configurations

1. Select **Employee** from the Application Switcher.
2. In the left navigation pane, select **View Pay Checks**.
3. Maximize the **Chrome** browser.
4. Click **Refresh**.
5. Click **View Pay Checks** on the menu bar. The link from GHR to LSF is successful, however, there are no paycheck for the current pay period.
6. Close the **Pay Checks** tab to return to GHR.

Configuring pages

The Configuration Console allows a user to restructure a page to meet the user's needs. The user may choose to add new tabs and/or lists to a page so that related lists are on one page. In addition, a user may choose to change the layout of the page for easier access to the forms he or she uses most often.



Scenario: Configure the Positions page by adding the Jobs tab and a list

The **HR Administrator** at ABC Company will configure the **Positions** page by adding the **Jobs** tab and a list.



Exercise 4.7: Configure a page by adding a tab and a list

In this exercise, you will add a tab and a list to a page.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the Positions page

1. Confirm you are connected to **GHR** in **InforOS Portal/Ming.le**.
2. Select **Administrator** from the **Application Switcher**.
3. Select **Set Up > Jobs And Position > Positions**. The **Positions** page opens and displays two tabs: **Positions** and **Mass Position Update**.
4. Press **Ctrl + Shift + click** in the header of the page. The **Component Info** dialog box opens.
5. Confirm the **Page name** is **Positions**.
6. Click **Close**.
7. Select **Set Up > Jobs and Positions > Jobs**. The **Jobs** page opens.
8. Press **Ctrl + Shift + click** in the header of the list. The **Component Info** dialog box opens.
9. Confirm the **Business Class** is **Job**.
10. Confirm the **List name** is **JobsContext**. You will use this information to add this UI object to the Positions page.
11. Click **Close**.

Part 2: Add a tab to the Positions page

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.

2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Page** in the **Tailor User Interface** column. The **Configure Page** form opens.
4. Type or select **Positions** from the **Page** drop-down list.
5. Click **Submit**. The LPL for the **Positions** displays.
6. Select **Edit**.
7. Create a new line at the end of the LPL code.
8. From the beginning of the new line, click **Tab** once.
9. Type *Jobs is a Panel*.
10. Hit **Enter**.
11. Hit **Tab** once.
12. Type *business class is Job*.
13. Hit **Enter**.
14. Hit **Tab** once.
15. Type list is *JobsContext*.

```

MassPositionUpdate is a Panel
    business class is Position
        list is MassPositionUpdateList
Jobs is a Panel
    business class is Job
        list is JobsContext

```

16. Click **Submit**. Your changes are saved.

Part 3: Validate the configurations

1. Select **Administrator** from the **Application Switcher**.
2. Select **Set Up > Jobs And Position > Positions**. The **Jobs** tab displays on the **Positions** page.
3. Click the **Jobs** tab. A list of jobs display on this tab.
4. Close the **Chrome** browser to return the desktop.

Check your understanding



What are four ways that you can change the look and display of lists?



1. _____
2. _____
3. _____
4. _____



What are the reasons to add buttons to a form?





What are ways that you can increase workflow efficiencies?





Lesson 5: Making application business logic configurations

Estimated time

6.5 hours

Learning objectives

After completing this lesson, you will be able to describe how to make application business logic configurations. In this lesson, you will:

- Discuss the different types of fields.
- Describe how to add relations to business classes.
- Describe how to work with conditions.
- Describe how to create a new business class.
- Describe how to use business logic to define actions.

Topics

- Types of fields
- Working with conditions
- Creating a new business class
- Creating user actions
- Creating user-defined relations and actions
- Creating user-defined relations
- Check your understanding

Types of fields

A standard business class may not contain all the fields needed for your business. The Configuration Console allows you to add fields to a business class configuration. After the fields are defined, you can add the field to a list or form. The types of fields, and an example for each of fields, you can add to business classes are described in the following table:

Field type	Description	Example
User field	User fields enable you to add a new field to a business class. You define the name, type, and length of field. Once added to the system, users can then enter data in the field via the user interface, database utilities, or Infor Spreadsheet Designer.	Start Date
Snapshot field	Snapshot fields capture values from another field, typically for performance optimization reasons. You can choose from existing business class fields to create a user field of the same type and size that copies the value from the original field to your new field if the data source is in context. In other words, the value of the snapshot source displays in the new snapshot field. Users will not be able to type or specify anything in the new field, because the value in the field comes from a snapshot source.	Invoice Number field from a global ledger transaction that auto populates in a user-defined field on a different form
User-defined conditions	You can add conditions to a business class definition. You can use these conditions to hide/show fields, columns, alerts, panels, buttons, and actions.	Hide cube number UserField when Remote Employee is true
Compute field	A compute field is a field created through a statement that uses values from existing fields, static values, mathematical operations, etc. Compute fields are display only.	Anniversary Date (current date minus start date)
Derived field	A derived field is similar to a compute field but introduces additional logic. Derived fields are created by using existing values and operations to produce a display-only value.	MyPayRateDerivedField is a DerivedField if Employee.PayRateType.IsHourly return HourlyPayRate else return AnnualPayRate

Field type	Description	Example
Check controls	Check controls allow you to add check boxes to run an action that typically controls an action that toggles a Boolean value.	Active





Scenario: Add a compute field to a list to show the number of days between the current date and released date of a requisition line item

There is a need to display the number of days that have passed since a requisition line item has been released.

The **Application Administrator** will create a compute field to compute the number of days between the current date and the date the requisition line item was released.

The **Application Administrator** will add a column to the **Manage Purchase Request** list to include this information. You will need to do the following:

- Create a user field
- Add a list configuration



Exercise 5.1: Add a compute field to a list

In this exercise, you will add a compute field to a list.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the Manage Purchase Request list and determine business class and list name

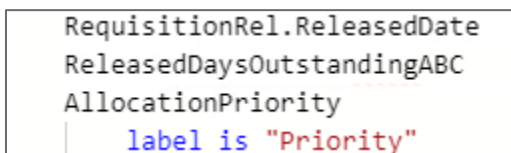
1. Double-click the **Infor Ming.le** icon on the desktop. The **Infor OS** window opens.
2. Type `IN01@gdeinfor2.com` in the `someone@example.com` field.
3. Type `Tr@in123` in the **Password** field.
4. Click **Sign in**.
5. Select **App Menu > CloudSuite Financials & Supply Management** icon.
6. Select **Buyer** from the **Application Switcher**.
7. Click **Manage Purchase Requests**.
8. Click the **Purchase Requests** tab. A list of purchase requests displays. You will add a column for the compute field to this list.
9. Press **Ctrl + Shift + click** in the **Purchase Order Requests** list header. The **Component Info** dialog box opens.
10. Confirm the business class is **PurchaseOrderInterface**.
11. Confirm the list name is **ManagePurchaseRequestList**.
12. Click **Close**.

Part 2: Create a user field

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Compute** in the **Tailor Business Logic** column. The **Add Compute Field** form opens.
4. Type or select **PurchaseOrderInterface** from the **Business Class** drop-down list.
5. Type *ReleasedDaysOutstandingABC* in the **Field Name** field.
6. Click **Explicit Label**. The label text field appears.
7. Type *Released Days Outstanding* in the **Explicit Label** field.
8. Select **Integer** from the **Extended Type** drop-down list.
9. Type **4** in the **Size** field.
10. Type *current date – RequisitionRel.ReleasedDate* in the **Calculation** field. The released date is part of the requisition header. **Note:** The **(-)** is a minus sign.
11. Click **Submit**. The new field is saved in the system.

Part 3: Add a list configuration

1. Select **Configuration > Create**. The **Create Configuration** page opens.
2. Click **List** in the **Configure an Existing Component** column. The **Configure List** form opens.
3. Type or select **PurchaseOrderInterface** from the **Business Class** drop-down list.
4. Type or select **ManagePurchaseRequestList** from the **List** drop-down list.
5. Click **Submit**.
6. Select **Edit**. The **ManagePurchaseRequestList** LPL code will display.
7. Scroll to **AllocationPriority**.
8. Place the cursor at the beginning of **AllocationPriority**.
9. Press **Enter**. A blank line displays above **AllocationPriority**.
10. Press the **Up** arrow to access the blank line.
11. Type *RequisitionRel.ReleasedDate*.
12. Press **Enter**.
13. Type *ReleasedDaysOutstandingABC*.



```
RequisitionRel.ReleasedDate
ReleasedDaysOutstandingABC
AllocationPriority
  label is "Priority"
```

14. Click **Submit**. The changes are saved.

Part 4: Validate the configurations

1. Select **Buyer** from the **Application Switcher**.

2. Click **Manage Purchase Requests**.
3. Click the **Purchase Requests** tab. A list of purchase requests displays. The two new fields display.
4. Keep the **Chrome** browser open for the next exercise.



Scenario: Add a Color field to the item master record

The **Application Administrator** at ABC Company has a need to create a user field on the item master record called **Color**. The user will have a list of color options in a drop-down list to select. You will need to do the following:

- Create a user field
- Add the field to the form



Exercise 5.2: Add a user field to a form

In this exercise, you will add a state field to a form.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View an item in the item master record and determine business class and form name

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Item Master Specialist** from the **Application Switcher**.
3. Double-click **<an item of your choosing>**. The **Item** form opens, and the **Main** tab is highlighted.
4. Press **Ctrl + Shift + click** in the form (choose the empty space between the Reference1 field and the Reference 2 field). The **Component Info** dialog box opens.
5. Confirm the business class name is **Item**.
6. Confirm the Panel form name is **Main**.
7. Click **Close**.

Part 2: Create a user field

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page displays.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Field** in the **Tailor Business Logic** column. The **Add Field** form opens.
4. Type or select **Item** from the **Business Class** drop-down list.
5. Type *ItemColorABC* in the **Field Name** field.
6. Click **Explicit Label**. The label text field appears.
7. Type *Item Color* in the **Explicit Label** field.

8. Select **Alpha** from the **Extended Type** drop-down list.
9. Type *10* in the **Size** field.
10. Click **Submit**. The new field is saved in the system and the LPL displays.
11. Click **Edit**. The **Edit LPL** form displays.
12. Place the cursor at the end of **default label is untranslatable:"Item Color"**.
13. Press **Enter**.
14. Type *States*.
15. Press **Enter**.
16. Press **Tab**.
17. Type *Green value is "Green"*.
18. Press **Enter**.
19. Type *Blue value is "Blue"*.
20. Press **Enter**.
21. Type *Purple value is "Purple"*.
22. Press **Enter**.
23. Type *Black value is "Black"*.

```
ItemColorABC is Alpha size 10
  default label is untranslatable:"Item Color"
  States
    Green value is "Green"
    Blue value is "Blue"
    Purple value is "Purple"
    Black value is "Black"
```

24. Press **Submit**.

Part 3: Add the field to a form

1. Select **Configuration > Create**. The **Create Configuration** page opens.
2. Click **Form** in the **Tailor User Interface** column. The **Add Form** form opens.
3. Type or select **Item** from the **Business Class** drop-down list.
4. Type or select **Main** from the **Form** drop-down list.
5. Click **Submit**.
6. Click **Edit**.
7. Scroll to **StockUOM**.
8. Place the cursor at the beginning of **StockUOM**.
9. Press **Enter**. A new line is created above **StockUOM**.
10. Press the **up** arrow to access the new line.

11. Type *ItemColorABC*.
12. Press **Enter**.
13. Press **Tab**.
14. Type *label is untranslatable:"ItemColor"*
15. Press **Enter**.
16. Press **Tab**.
17. Type *bold*
18. Press **Enter**.
19. Type *color of red*.

```
paragraph
  ItemColorABC
    label is untranslatable:"ItemColor"
    bold
    color of red
  StockUOM
```

20. Click **Submit**.

Part 4: Validate configurations

1. Select **Item Master Specialist** from the **Application Switcher**.
2. Double-click **<an item of your choosing>**. The **Item** form opens and the **Main** tab is highlighted.
3. Click the **drop-down arrow** in the **Color** field. A list of colors displays.
4. Select **<a color>**.
5. Click **Save**. The update is successful.
6. Keep the **Chrome** browser open for the next exercise.

Working with conditions

You can add conditions to a business class definition. You can use these conditions as display-only check boxes that show the status of the condition, such as conditions that control the behavior of other user interface components. For example, controlling whether a field is visible or not.



Scenario: Add a condition field to a form

The **Human Resources Administrator** at ABC Company will add a field to the employee profile. This field will indicate whether the employee has more than five years of service. You will need to do the following:

- Add a condition field
- Add the field to a form



Exercise 5.3: Add a condition field to a form

In this exercise, you will add a condition field to a form.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the **At A Glance** tab on the employee profile and determine form name and business class

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **App Menu > GHR** icon.
3. Select **Employee** from the **Application Switcher**.
4. In the left navigation pane, click **My Profile**.
5. Click the **At A Glance** tab. You will configure a condition field for **Over 5 Years** to display in the employee profile.
6. In the empty space to the right of the Employee ID field, press **Ctrl + Shift + click**. The **Component Info** window opens.
7. Confirm the business class name is **Employee**.
8. Confirm the panel form name is **LRCEmployeeAtAGlanceDetail**.
9. Click **Close**.

Part 2: Add a condition field

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page display.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Condition** in the **Tailor Business Logic** column. The **Add Condition** form opens.
4. Type or select **Employee** from the **Business Class** drop-down list.
5. Type *YearsOfService5ABC* in the **Field Name** field.
6. Click **Explicit Label**. The label text field appears
7. Type *Over 5 years* in the **Explicit Label** field.
8. Type *StartDateLengthOfServiceYears > 5* in the **Condition** field.
9. Click **Submit**. The new field is saved in the system and the LPL displays.



Part 3: Add a field to a form

1. Select **Configuration > Create**. The **Create Configuration** page opens.
2. Click **Form** in the **Tailor Business Logic** column. The **Add Form** opens.
3. Type or select **Employee** from the **Business View** drop-down list.
4. Type or select **LRCEmployeeAtAGlanceDetail** from the **Form** drop-down list.
5. Click **Submit**.
6. Click **Edit**.
7. Scroll to **Employee**.
8. Place the cursor at the beginning of **Employee**.
9. Press **Enter**. A new line is created above Employee.
10. Press the **up** arrow to access the new line.
11. Type *YearsOfService5ABC*.
12. Press **Enter**.
13. Press **Tab**.
14. Type *display as text*
15. Press **Enter**.

16. Type *left align*

```
column1
  YearsOfServiceABC
    display as text
    left align
  Employee
    label is "EmploymentID"
```

17. Click **Submit**.

Part 4: Validate the configurations

1. Select **Employee** from the Application Switcher.
2. Click **My Profile**.
3. Click the **At A Glance** tab. The **Over 5 Years** field displays in the employee profile.
4. Minimize the **Chrome** browser to return the desktop.

Creating a new business class

Recall that business classes are central components of the Landmark system. They contain the basic definitions for what data is in an application, how it is organized, and how it is processed.

There may be times when you need to create a new business class. For example, if you have data you need to track and have users interact with it, you can add your own business logic by defining your own business class. Or what you need is too complicated for a user field because a single value is not enough to describe the data.

Let's use an example of a charity business class. Users need more information than the name of the charity to decide before choosing the charity. They may want to know the charity's mission. The data may need to have parent-child relationship.

In addition, you anticipate that the list of states where the charity is located will change. You do not want to redefine the user field every time a new state is approved by the company. Also, you would like to add some workflow to get a charity approved. The ultimate decision is that you need a user business class, not a user field.


User-defined business classes give you the ability to create user-defined business logic. You can create a business class and create specific user interfaces (lists, forms, etc.) for the business class. This allows you to extend an existing application or create a new application.

Once the user business class record is created, you can edit the LPL.

When creating a business class, a security class is automatically created. Inquiry-only access is the default. A message displays that provides the name of the security class created and the access rights granted. You can change these values by editing the security class in Configuration Console for security. Note you must have appropriate roles assigned to your user to edit security classes.

The fields for creating a new business class are described in the following table:

Field	Description
Key Field Name	The value you enter in the Key Field Name field become the business class name. The name cannot begin with a lowercase letter or contain spaces.
Field Type, Size, and Decimals	<p>The Field Type field has a drop-down list from which you select one of the following:</p> <ul style="list-style-type: none">• Alpha• AlphaRight• AlphaUpper• Anniversary• BinaryDocument• Binary Object• Boolean <p>You enter the size of the field in the Size field and indicate whether decimals are included in the Decimals field.</p>

Field	Description
Context	The Context field is left blank. However, if the new business class belongs to a certain level relative to other key fields or business classes in the system, you select the key field here. For example, if the business class is only valid in the context of an HROrganization, then you select that as the context.
Parent Hierarchy	You select the Parent Hierarchy check box if your data will have levels that roll up.
User Defined State	You select the User Defined State check box, if you want the valid values to display in a drop-down list instead of combo box type selector in the user interface.
Business Class	The Business Class field reflects the value you entered in the Key Name Field. You can change the name of the business class, if desired.
Persistent, Derived, Compute, Conditions	You define the Persistent , Derived , Compute , and Condition fields for the business class, as applicable.
Role	<p>You select at least one role to associate with the business class. This role associates the new business class with security. If you do not assign a role, no users will have access to this business class.</p> <p>  When you save this information, a confirmation message displays with name of the security class created and the access rights granted. You can change these values by editing the security class in the Configuration Console for security. You must have the appropriate roles assigned to your user to edit security classes. </p>

Once you create the business class, you can create new lists and forms. The business class has the basic Create, Update, and Delete functions. You can create or add additional actions as needed.



Scenario: Create a new business class for Parking Lot Locations

There is a need for the **HR Administrator** at ABC Company to create a new business class for **Parking Lot Locations**. In this scenario, you will need to do the following:

- Create a new business class to store parking lot locations data and assign to employees
- Populate the records for the user business class
- Add a user field to the **Employee** business class (User business class data will be tied to this field.)
- Add the parking lot locations user field to the **Employee** form



Exercise 5.4: Create a new business class

In this exercise, you will create a new business class.

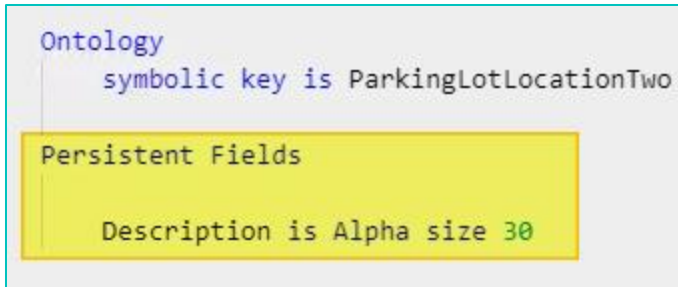
Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Create a user business class

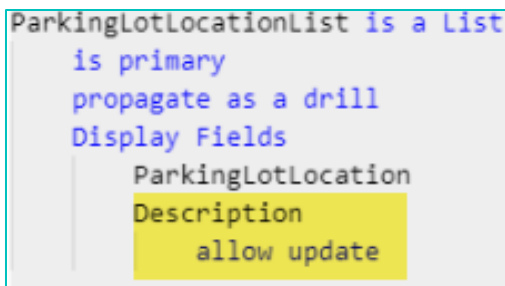
5. Confirm you are logged in to **InforOS Portal/Ming.le**.
6. Select **App Menu > GHR** icon.
7. Use the **Application Switcher** and select **Configuration Console**. The **Configuration Console** home page display.
8. Select **Configuration > Create**. The **Create Configuration** page opens.
9. Click **Create New Business Classes** in the **Other** column. The **Add Business Class** form opens.
10. Type *ParkingLotLocation* in the **Business Class** field.
11. Select **Alpha** from the **Extended Type** drop-down list.
12. Type **4** in the **Field Size** field.
13. Click **Submit**. The **Configuration** window opens.
14. Click **Edit**.
15. Add the following block of LPL code to add an additional persistent field:



16. Click **Submit**.
17. Click the **Security** tab. Note that a new security class has been added, however has not yet been assigned to a role.
18. Click **Manage Security Class**. The Security Class form opens.
19. Click the **Roles** tab.
20. Click **Assign To Role**.
21. Select the **Admin_ST** check box.
22. Click **Assign**.
23. Click **Close**.

Part 2: Create a list and update an existing menu

1. Select **Configuration > Create**. The **Create Configuration** page opens.
2. Click **List** in the **Add A New Component** column. The **Add New List** form opens.
3. Type *ParkingLotLocation* in the **Business Class** field.
4. Type *ParkingLotLocation* in the **List Name** field.
5. Click **Submit**. The Configuration form displays.
6. Click **Edit**.
7. Type the following code:



8. Click **Submit**. The list is created; however we need to give business users the ability to navigate to the new list.
9. Select **Configuration > Create**. The **Create Configuration** page opens.
10. Click **Menu** in the **Application Level Components** column. The **Configure Menu** form opens.
11. Type or select **LRCAdminMenu** from the **Menu** drop-down list.
12. Click **Submit**. The LPL for the **LRCAdminMenu** displays.

13. Select **Edit**.
14. Scroll to **Menu Items**.
15. Place the cursor at the end of **Menu Items**.
16. Press **Enter**. A blank line displays above **Goals**.
17. Press **Tab**.
18. Type the following code to add the ParkingLotLocation list to the menu:

```
LRCAdminMenu is a Menu
  title is "Administration"
  Menu Items
    ParkingLotLocation
      list is ParkingLotLocation.ParkingLotLocationList
  Goals
    menu is LRCGoalManagement
```

19. Click **Submit**.

Part 3: Add records for the new business class

1. Use the **Application Switcher** and select **Administrator**.
2. Click **Parking Lot Location**. The list opens.
3. Click **Create**. The form displays. Notice the Blank first field. This is the Unique ID field on every Business Class. It is a required field for Infor to automatically populate with a unique value in the event the Keys to the record are duplicated this value would remain unique.
4. Select **Ctrl-Shft-Click**. The **ParkingLotLocation_Primary** form information displays.
5. Select **CreateConfiguration** link. This will launch another tab to the object now ready to be configured.
6. Select **Edit**.
7. Locate the UniqueID field and add the characteristic of hidden as shown below.

```
ParkingLotLocation_Primary is a Form
  is primary
  propagate as a drill
  Layout
    single column
      UniqueID
        hidden
      ParkingLotLocation
      Description
```

8. Select Submit.
9. Close the tab of Configuration Console.
10. Click **Parking Lot Location**. The list opens.
11. Click **Create**. The form displays. Notice the Blank first field has been removed.

12. Type *A1* in the **ParkingLotLocation** field.
13. Type *Victory Lot Space 1* in the **Description** field.
14. Click **Save And New**.
15. Type *B1* in the **ParkingLotLocation** field.
16. Type *Chestnut Lot Space 1* in the **Description** field.
17. Click **Save**.
18. Click **Back**. The list displays with two records.

Part 4: Add a user field to the Employee business class

1. Use the **Application Switcher** and select **Configuration Console**. The **Configuration Console** home page display.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Field** in the **Tailor Business Logic > Add A New Field** column. The **Add Field** form opens.
4. Type or select **Employee** from the **Business Class** drop-down list.
5. Type *EmpParkingLocation* in the **Name** field.
6. Click the **Named Type** check box.
7. Type or select *ParkingLotLocation*.
8. Click **Submit**. The new field is created. This field is a component of the Employee business class and is linked to the ParkingLotLocation business class key field.

Part 5: Add EmpParkingLocation field to existing Employee form

1. Select **Administrator** from the **Application Switcher**.
2. Select **Resources**. The **Resource Search** form opens.
3. Click **Search**. The list populates with data.
4. Double-click **Emily Ackers**. **Emily Acker's Profile** form opens.
5. Click in the **Employment ID** field.
6. Press **Ctrl + Shift + click** just to the right of the **Employment ID** field. The Component Info window opens.
7. Confirm the **Panel Form Name** displays the panel form name of **LRCDetail**. Note that we already have a configuration for this form.
8. Click View Configuration. The LRCDetail LPL code displays.
 1. Click **Edit**.
 2. Place the cursor at the end of **display as link** (just above the Employee field).
 3. Press **Enter**. A new line is created.
 4. Type *EmpParkingLocation*.

```

visible when (HasWorkEmail)
  button of "<EmployeeWorkEmailAddress>"
    visible when (HasWorkEmail)
    link is "mailto:<EmployeeWorkEmailAddress>"
    align as label
    display as link
  EmpParkingLocation
Employee
  label is "EmploymentID"

```

5. Click **Submit**.

Part 6: Validate the configurations

1. Select **Administrator** from the **Application Switcher**.
2. Select **Resources**. The **Resource Search** form opens.
3. Click **Search**. The list populates with data.
4. Double-click **Emily Ackers**. **Emily Acker's Profile** form opens.
5. Select **A1** from the **Employee Parking Lot** drop-down list.
6. Click **OK**.
7. Click **Save**. The **Response Required** window opens.
8. Type *<today's date>* in the **Effective Date** field.
9. Click **OK**.
10. Keep the **Chrome** browser open for the next exercise.

Creating user actions

You can add new actions that appear within a business class, form, or list.

There are several types of actions you can configure.

Action Configuration

Action Configuration allow you to override some action settings, including whether a comment is required, whether an effective date is required, and whether an action reason is required when the action is performed.

User action request

Business classes contain the definition of a user action request. A user action request triggers an action to be taken on a specific business class. Any number of user action requests can be created to serve different business needs. It is most useful to create a user action request as opposed to a user-defined action if your user action requests are not already defined for a business class.

User-defined actions

You can create a user-defined action for any action and create specific forms for the action. These actions continue to use the business logic of the action they extend but the form can be unique for each user action. For example, you can add a new Create action that extends an existing Create action and then create or copy a form to a new user form so the new Create action can bring up the new form. User actions can be created for all action types.

User action extensions

You create user action extensions to create new action requests based on the application-delivered business logic. You can override specific attributes.





Scenario: Configure a request action when a change to a buyer is required

CloudSuite Supply Management requires a **Buyer** to indicate who is performing the purchasing function. For example, you can define purchasing authority and purchase order limits.

An organization may require approvals when an update to a buyer is required.

In this scenario, you will create an action and route changes made to a buyer record for approval in IPA. You will need to do the following:

- Create an action request
- Add the action request as a pinnable action



Exercise 5.5: Configure an action request

In this exercise, you will configure an action request.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View a buyer record

1. Select **App Menu > CloudSuite Financials & Supply Management** icon.
2. Select **Application Administrator** from the **Application Switcher**.
3. Select **Supply Management > Supply Management Setup > Purchasing > Buyers**. The **Manage Buyers** form opens.
4. Review the actions that are available in the **Manage Buyers** pane.
5. Press **Ctrl + Shift + click** in a buyer profile. The **Component Info** window opens.
6. Confirm the business class is Buyer.
7. Click **Close**.

Part 2: Create an action request

1. Select **Configuration Console** from the **Application Switcher**. The **Configuration Console** home page display.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Create New Request Action** in the **Tailor Business Logic** column. The **Create new Request Action** form opens.
4. Type or select **Buyer** from the **Business Class** drop-down list.
5. Type *RequestUpdateBuyer* in the **Action** field.

6. Type or select **Update** from the **Action Type** drop-down list.
7. Click the **Workflow** tab.
8. Select **RequestUpdateBuyerApproval** from the **Process Flow Service** drop-down list.
9. Click **OK**.
10. Select **Buyer** from the **Web App** drop-down list.
11. Click **OK**.
12. Click the **Required** tab.
13. Select the **Effective Date Required** check box.
14. Select the **Action Comment Required** check box.
15. Type or select **BuyerUpdate** from the Subject drop-down list.
16. Click the **Validity** tab.
17. Type or select **IsActive** from the **Valid When** field. This action will only apply if the Buyer record has a status of Active.
18. Click **Submit**. The new user action is created and the LPL displays.
19. Review the parameters section. These parameters will be sent to the IPA service.
20. Click the **Security** tab. Note that a new security class has been added, however has not yet been assigned to a role.
21. Click **Manage Security Class**. The **Security Class** form opens.
22. Click the **Roles** tab.
23. Click **Assign To Role**.
24. Select the **ApplicationAdministrator_ST** check box.
25. Click **Assign**.
26. Click **Close**.

Part 3: Validate the configurations

1. Select **Application Administrator** from the **Application Switcher**.
2. Select **Supply Management > Supply Management Setup > Purchasing > Buyers**. The **Manage Buyers** form opens.
3. Click on an **Active** buyer record.
4. Review the actions that are available in the **Manage Buyers** pane. **Update Buyer Request** displays.
5. Keep the **Chrome** browser open for the next exercise.

Creating user-defined relations

Configuration Console provides the ability to create user-defined relations. You may need to add new relations to define new ways business classes can relate to one another. There may be cases where there are no fields to relate one business class to another as delivered, but you can define a relation with the addition of user fields.

You can define your own relations from one business class to another with your own instance selection. The field mapping or instance selection variables can then use user-defined fields for their content. The relationship can be defined as one-to-one, one-to-many, or business class set.

If a field to relate one business class to another is not available, a new field can be created. Infor recommends referencing user fields from the same business class where the relation is defined, rather than referencing user fields from the related business class.



Be careful in defining relations, especially one-to-many relations. A poorly defined relation can cause significant performance issues depending on the set (index) used and cardinality of your data.

Entrance and exit rule for actions

You can define entrance and exit rules for actions to augment and enhance the logic of existing LPL actions and inject your own logic. These rules are written in LPL. They do not change the business logic defined in the delivered LPL. They add to the business logic. Entrance rules run before the delivered action rules execute. Exit rules run after the delivered action rules have successfully completed.

For example, you can configure an exit rule to trigger an Infor Process Automation process, or you can configure an exit rule to send notifications of emails to update others on the status of the action taken.



Entrance and exit rules cannot be created for business classes that are stored in the Landmark environment (gen).





Scenario: Create an action with an entrance rule

In this scenario, you will create an action that checks to see if the tax ID for a customer is associated with another customer when you update the customer record.

You will create a user-defined relation for the customer business class. This will be a one-to-many relationship between the **Customer** form record and the **Customer** business class.

You will then create an entrance rule which will execute a constraint against the **Tax ID** field when you update the customer record.



Exercise 5.6: Create an action with an entrance rule

In this exercise, you will create an action with an entrance rule.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the Customer Tax ID field and determine the business class and field name

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Application Administrator** from the **Application Switcher**.
3. Select **Financials > Receivables > Manage Customers > Customers**. The **Manage Customers** form opens.
4. Double-click **LGE Customer**. The **Customer 1 – LGE Customer** form opens.
5. Scroll to the **Tax Information** section.
6. Click in the **Tax ID** field.
7. Press **Ctrl + Shift + click**. The **Component Info** window opens.
8. Confirm the business class name is **Customer**.
9. Confirm the field name is **TaxID**.
10. Click **Close**.

Part 2: Create a user relation

1. Select **Configuration Console** from the **Application Switcher**.
2. Select **Configuration > Create**. The **Create Configuration** page opens.
3. Click **Create New Relation** in the **Other** column. The **Add Relation** form opens.
4. Type or select **Customer** from the **Business Class** drop-down list.
5. Type *CustomerTaxIdRel* in the **Name** field.

6. Select **One-To-Many** from the **Type** drop-down list.
7. Select **Customer** from the **RelationTo** drop-down list.
8. Select **ByCustomer** from the **Business Set** drop-down list. This determines how the data is filtered.
9. Click **Submit**. The **CustomerTaxIdRel** LPL code displays.
10. Click **Edit**.
11. Scroll to the **Field Mapping** section in the code.
12. Type to replace the existing code with the following highlighted code.

```
CustomerTaxIdRel
  one-to-many relation to Customer
  Field Mapping uses ByTaxID
    related.TaxID      = TaxID
    related.CustomerGroup = CustomerGroup
  Instance Selection
    where (related.Customer != Customer)
```

Click **Submit**.

Part 3: Create an action with an entrance rule

1. Select **Configuration > Create**. The **Create Configuration** page opens.
2. Click **Create Action Configuration** in the **Configure and Add Actions** column. The **Create configuration** form opens.
3. Type or select **Customer** from the **Business Class** drop-down list.
4. Type or select **Update** from the **Action** drop-down list.
5. Click the **Entrance Rules** tab.
6. Type *constraint (first CustomerTaxIdRel not exists)* in the **Commands** field.
7. Press **Enter**.
8. Press **Tab**.
9. Type *"Customer<first CustomerTaxIdRel.Customer>HasThis_Tax_ID"*
10. Click **Submit**. The LPL syntax is below.

```
Update is an ActionOverride
  Entrance Rules
    constraint (first CustomerTaxIdRel not exists)
      "Customer<first CustomerTaxIdRel.Customer>HasThis_Tax_ID"
```

Part 4: Validate the configurations

1. Select **Application Administrator** from the **Application Switcher**.
2. Select **Financials > Receivables > Manage Customers > Customers**. The **Manage Customers** form opens.

3. Double-click **LGE Customer**. The **Customer 1 – LGE Customer** form opens.
4. Scroll to the **Tax Information** section.
5. Highlight the **Tax ID** value.
6. Press **Right Click > Copy** to copy the tax ID number. (Value 40-123456789 should be copied to clipboard.)
7. Press **Right Click > Back** to return to the customer dashboard.
8. Open **Customer ID: 3 – Spring Services**.
9. Right-click in the **Tax ID** field.
10. Press **Right Click > Paste**. (Value 40-123456789 should be pasted into field. You can type this value if Copy/Paste did not work.)
11. Click **Save**. An **Error** dialog box opens with the message, "Warning: Customer 1 has this Tax ID."
12. Click **Close**.
13. Click **Home** to return to the **Application Administrator** homepage.
14. Click **No**.
15. Close the **Chrome** browser to return to the desktop.



Scenario: Trigger a process so that Infor Process Automation notifies the buyer that the procurement template is updated

The **Application Administrator** at ABC Company wants a notification sent to the **Buyer** when the **Procurement Template** is updated. You will need to do the following:

- Update a procurement template
- Create a service definition
- Create an exit rule for the service



Exercise 5.7: Create an exit rule

In this exercise, you will configure a business class action to initiate a service.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Update a procurement template

1. Maximize the **Chrome** browser (Ensure that you are logged in to **Infor OS Portal/Ming.le** for this exercise. If not, use IN01@gdeinfor2.com / Tr@in123.)
2. Select **App Menu > CloudSuite Financials & Supply Management** icon.
3. Select **Application Administrator** from the **Application Switcher**.
4. Select **Supply Management > Supply Management Setup > Purchasing > Procurement Templates**. The **Procurement Templates** form opens.
5. Double-click **<a procurement template of your choosing>** to open it.
6. Review the fields and Save action. The action of Save will cause an automation to trigger on completion of exercise.

Part 2: Create a service definition

1. Select **Process Server Administrator** from the **Application Switcher**.
2. Select **Configuration > Service Definitions**. The **Service Definitions** form opens.
3. Select **Actions > Create**. The **Service Definition** form opens.
4. Type *TemplateChange* in the **Service** field.
5. Type *Template Change* in the **Description** field.
6. Select the **Service Is Enabled** check box.
7. Type *ProcurementGroup* in the **Criteria Name 1** field.



You must type this exactly as it appears or you will receive an error message.

8. Click **Save**.
9. Click the **Processes** tab.
10. Select **Actions > Create**. The **Service Process Definition** form opens.
11. Select **ProcurementTemplateUpdate** from the **Process Definition** drop-down list.
12. Click **Save**.
13. Minimize the **Chrome** browser to return the **Landmark 11 (Landing Server)** desktop.

Part 3: Create an exit rule for the service

1. Select **Configuration Console** from the **Application Switcher**.
2. Select **Configuration > Create**
3. Select **Create Action Configuration**. The **Create Configuration** form opens.
4. Select **ProcurementTemplate** in the **Business Class** field.
5. Select **Update** from the **Action** field drop-down list.
6. Click the **Exit Rules** tab.
7. Type *initiate TemplateChange process* in the **Exit Rules** field.



You must type this exactly as it appears or you will receive an error message.

8. Press **Enter**.
9. Press **Tab**.
10. Type *Criteria*.
11. Press **Enter**.
12. Press **Tab**.
13. Type *ProcurementGroup*.
14. Press **Enter**.
15. Press **Backspace**. This is to align back under Criteria as a characteristic.
16. Type *category filter is ProcurementGroup*.
17. Press **Enter**.
18. Type *Variables*.
19. Press **Enter**.

20. Press **Tab**.
21. Type *ProcurementGroup*
22. Press **Enter**.
23. Type *ProcurementTemplate*.
24. Press **Enter**.
25. Type *Description*.

```
initiate TemplateChange process
  Criteria
    ProcurementGroup
  category filter is ProcurementGroup
  Variables
    ProcurementGroup
    ProcurementTemplate
    Description
```

26. Click **Submit**. The LPL syntax is below is loaded automatically.

```
Update is an ActionOverride
  Exit Rules
    initiate TemplateChange process
      Criteria
        ProcurementGroup
      category filter is ProcurementGroup
      Variables
        ProcurementGroup
        ProcurementTemplate
        Description
```

Part 4: Validate the configurations

1. Click **Refresh** on browser.
2. Select **Application Administrator** from the **Application Switcher**.
3. Select **Supply Management > Supply Management Setup > Purchasing > Procurement Templates**. The **Procurement Templates** form opens.
4. Double-click **<a procurement template of your choosing>** to open it.
5. Click the **Search** icon in the **From Company** field. A window opens with a list of options.
6. Select **<a company>** from the list of options.
7. Click **Save**.
8. Select **Process Server Administrator** from the **Application Switcher**.
9. Select **Administration > Work Units > Work Units**. The **Work Units** form opens. A work unit has been created.
10. Click **Home** to return to the **Process Server Administrator** homepage.

11. Minimize the **Chrome** browser to return the **Landmark 11 (Landing Server)** desktop.
12. Select **MS Edge** shortcut on task bar.
13. Select **MailEnabled** favorite.
14. **Sign In** window opens.
15. Type *user00@edu.com* in the first unnamed field.
16. Type *Tr@in123* in the **Password** field.
17. Click **Login**. The email notification displays.
18. Select **My Account > Log Out**. A **Log Out** dialog box opens with the message, "Are you sure you want to log out?"
19. Click **Yes**.
20. Click **X** on the **Webmail** browser. You return to the desktop.

Check your understanding



Which one of the follow options do you configure to trigger an email notification to update users on the status of an action taken?

- a) User-defined action
- b) Exit rule
- c) User action
- d) User action request



Lesson 6: Making data area configurations

Estimated time

1 hour

Learning objectives

After completing this lesson, you will be able to describe how to configure the data area. In this lesson, you will:

- Describe how to enable/disable translation.
- Describe how to add business class subjects.
- Describe how to manage time zones.
- Describe how to manage MIME types.

Topics

- Data area configuration overview
- Business Class Subjects
- Turning off translation
- Managing time zones
- Managing MIME types
- Check your understanding

Data area configuration overview

There are several ways that you can make configuration changes that apply across a data area. These data area configurations include the following:

- Add business class subjects to a data area
- Enable and disable translation (multi-language field configuration)
- Manage time zones
- Manage MIME types



Adding business subjects

The main reason to add a business subject is so that you can assign your own business subject to an action request that you create in the Configuration Console. You can control the action reasons available for the action request.

Once you add the business subject, you can use the Action Reason form to associate action reasons with this business subject. You can now associate this business subject with a user action request or user-defined action configuration.



Scenario: Create action reasons for buyer updates

In Exercise 5.5, we created a new action request to submit Buyer updates in CloudSuite Supply Management. We would also like to link action reasons when the action request is submitted.

In this scenario, the instructor will demonstrate a data area business subject configuration, and setup two action reasons associated with the business subject.



Demo: Review a business subject and add action reasons

This demonstration shows how to view business subjects added to a data area and setup two action reasons for the business subject.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

Part 1: Review a custom business subject to a data area

1. Double-click the **Infor Ming.le** icon on the desktop. The **Infor OS** window opens.
2. Type `IN01@gdeinfor2.com` in the `someone@example.com` field.
3. Type `Tr@in123` in the **Password** field.
4. Click **Sign in**.
5. Select **App Menu > CloudSuite Financials & Supply Management** icon.
6. Select **Configuration Console** from the **Application Switcher**.
7. Select **Configuration > Master**. A list of existing configurations display.

Note: We already have a configuration for the product line on this TE, so we will review the LPL for our Product Line configuration. If one did not already exist, we would create a new Product Line configuration.

8. Use the **Type** filter option to search for **Product Line** configurations.

9. Click **Search**. One configuration should display in the results.
10. Double-click to open the **IEFIN** product line configuration. The IEFIN LPL displays.
11. Review the **BuyerUpdate** subject that has been added to this data area.

Part 2: Create two action reasons for the BuyerUpdate business subject

1. Select **Application Administrator** from the **Application Switcher**.
2. Select **Financial > Payables > Payables Setup > Action Reasons**
3. The **Action Reasons** list opens.
4. Select **Create**.
5. Select **BuyerUpdate** from the **Subject** drop-down list
6. Type *<today's date>* in the **Effective Date** field.
7. Type *REACTIVATE* in the **Action Reason** field.
8. Type *Reactivate Inactive Buyer* in the **Description** field.
9. Click **Save and New**.
10. Select **BuyerUpdate** from the **Subject** drop-down list
11. Type *<today's date>* in the **Effective Date** field.
12. Type *TRANSFER* in the **Action Reason** field.
13. Type *Buyer Team Transfer* in the **Description** field.
14. Click **Save**. The Action Reasons are added in the system.



Enable and Disable Data translation

You can control whether data translation or dynamic embedded text (DET) is enabled or disabled for a data area. If you do not use data translation, disabling it will slightly reduce the load on your system.

By default, data translation is implemented and enabled when you install the application product line or data area. If you disable data translation, the implementation remains in place. That is, the database structure still exists. It can be enabled later if your organization wants to use data translation.



Demo: Disable Data Translation

This demonstration shows how to enable/disable translation.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

1. Select **Configuration Console** from the **Application Switcher**.
2. Select **Configuration > Master**. A list of existing configurations display.
3. Use the **Type** filter option to search for **Product Line** configurations.
4. Click **Search**. One configuration should display in the results.
5. Double-click to open the **IEFIN** product line configuration. The IEFIN LPL displays.
6. Click **Edit**.
7. Highlight the current value of disabled in the DataTranslation section of the code.
8. Replace the work enabled with disabled.

```
Patterns
|
| implements DataTranslation
| disabled
```

9. Press **Submit**.



Managing time zones

Time zones are configurable in the Configuration Console. Active time zones define the list of time zones for users to choose from when setting a future effective date for actions in applications.

Initially, all time zones, except the default time zone, are set to inactive. In the Configuration Console, you can activate a time zone, change the description, and change the default time zone for the data area. For example, if your corporate headquarters are in Chicago, you may want to change the default data area to America/Chicago and change the display name from Central Standard Time to Chicago (Corporate).

If an application form has been configured to include an Effective Time Zone field, users can choose from active time zones and the system will trigger the request to become effective at midnight in the selected time zone. If the user does not select a time zone, the system will use the default time zone for the data area. If there is no default time zone, the system will use the server time.



Scenario: Activate time zones and set system default

The **Application Administrator** at ABC Company has a need to add multiple time zones to support business processing. We need to be able to support three different time zones for **America/Chicago**, **America/New_York**, and **America/Los_Angeles**. We also want to set **America/Chicago** as the default time zone.



Demo: Activate time zones and set system default

This demonstration shows how to activate time zones and configure a system default time zone.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

Part 1: View the Cost Centers form and determine business class and form name

1. Maximize the **Chrome** browser (Ensure that you are logged in to **Infor OS Portal/Ming.le** for this exercise. If not, use IN01@gdeinfor2.com / Tr@in123.)
2. Select **App Menu > GHR** icon.
3. Select **Administrator** from the **Application Switcher**.
4. Select **Set Up > Prerequisites> Cost Center Project> Cost Centers**. The **Cost Centers** form opens.
5. Double-click **Accrual PTO Hours** to open it. You will add the **Effective Time Zone** field to this form.
6. Press **Ctrl + Shift + click** anywhere on the form. The **Form Information** dialog box opens.

7. Write the business class name here. _____
8. Write the form name here. _____

Part 2: Activate time zones

1. Select **Configuration Console** from the Application Switcher.
2. Select **Configuration > Master**. A list of existing configurations display
3. Expand **DataArea**.
4. Select **Time Zones**. A list of time zones displays.
5. Confirm the **Filter** is enabled. If not, click the **Filter** icon to enable the search bar.
6. Set the **In Use** filter to **Yes** and review time zones currently in use.
7. Remove the **In Use** filter value to display all time zones.
8. Type *America/Chicago* in the **Time Zone** field.
9. Press **Enter**. The **America/Chicago** time zone displays.
10. Select the **In Use** drop down menu.
11. Select **Yes** to enable the time zone.
12. Click **Save**.
13. Search for **America/Los_Angeles** in the **Time Zone** field.
14. Select the **In Use** drop down menu.
15. Select **Yes** to enable the time zone.
16. Click **Save**.
17. Clear the **Time Zone** filter.
18. Set the **In Use** filter to **Yes** and review all time zones currently in use. Three active time zones display.
19. Right-click the **America/Chicago** record.
20. Select **Make Default**.
21. Click **Save**. There are now only two active time zones.
22. Use the previous steps to re-activate the **America/New_York** time zone.

Part 3: Add a field to the form

1. Select **Configuration> Create**
2. Select **form** from **Configure An Existing Component**.
3. Select **CostCenter** from the **Business Class** drop-down list.
4. Select **CostCenterForm** from the **Form** drop-down list.
5. Click **Submit**.
6. Click **Edit**.

7. Press **Enter** after **effective date**. A blank line displays.
8. Type *effective time zone* in the blank line.
9. Click **Submit**.

Part 4: Validate the configurations

1. Click **Refresh** browser.
2. Select **Administrator > Setup> Prerequisites> Cost Center Project> Cost Centers**. The **Cost Centers** form opens.
3. Double-click **Actual PTO Hours** to open it. The **Effective Time Zone** field displays on the form.
4. Type *<tomorrow's date>* in the **Effective Date** field.
5. Select **Central Standard Time** from the **Effective Time Zone** field. Note that **Eastern Time Zone** displays as an option.
6. Type *<a different description>* in the **Description** field.
7. Click **Save**.
8. Select **Actions > View Audit Log**. The **Effective Time Zone** displays on the **Audit Log for 'Cost Center'** for Period Future record.
9. Click **Home** to return to the **Welcome to the Administrator homepage**.
10. Minimize the **Chrome** browser to return the **Landmark 11 (Landing Server)** desktop.



Managing MIME types

MIME types are a standard way of identifying the file or content types recognized by your system. MIME stands for Multipurpose Internet Mail Extensions, based on its origin to identify file attachments to emails.

A MIME type has two parts, a type and a subtype separated by a virgule (/).

Configuring MIME types allows an administrator to control the types of attachments that can be uploaded into the system.

By controlling the types of files allowed into the system, the administrator prevents harmful or malicious attachments sometimes found in videos or executable files. For example, you can prevent executable (.exe) or VBScript (.vbs) files from being attached.

In addition, it limits the file size of the attachment, so system performance is not impacted and saves on valuable resources.

As delivered, most MIME types are active. You need to review the MIME types to determine what is applicable for your organization.

Restricting MIME types

One common file type that organizations restrict to prevent and limit harmful or malicious attachments is executable files. These are files with .exe. Other commonly restricted MIME types include:

- .mpg (Multiple Picture Group)
- .wmv (Windows® Media Video)
- .wav (Waveform Audio)



Exercise 6.1: Manage MIME types

In this exercise, you will create and delete a MIME type.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Create a new MIME type

1. Double-click the **Infor Ming.le** icon on the **Desktop**. The **Infor OS** window opens.
2. Type `IN01@gdeinfor2.com` in the `someone@example.com` field.
3. Type `Tr@in123` in the **Password** field.
4. Click **Sign in**.

5. Select **App Menu > GHR** icon.
6. Select **Configuration Console** from the Application Switcher.
7. Select **Data Area > Mime Types**. The MIME types page opens.
8. Select the **filter** icon.
9. Type *lpd* in the **Extensions** field. The lpd file extension is Infor's IPA file type.
10. Press **Enter**. No results display.
11. Select **Create**. The **Mimetype** form opens.
12. Type *<today's date>* in the **Effective Date** field.
13. Type *application/lpd* in the **Mime Type** field.
14. Type *lpd* in the **Extensions** field.
15. Type *lpd* in the **Default Extension** field.
16. Click **Save**.
17. Click Back. The **Mime types** list displays with the new MIME type.

Part 2: Restrict a MIME type

1. Type *.doc* in the **Extensions** field.
2. Press **Enter**. A result displays with the **.doc** extensions.
3. Select **application/vnd.openxmlformats-officedocument.wordprocessingml.document**.
4. Select **Blocked** from the **Status** drop-down list.
5. Click **Save**.

Part 3: Create a .docx file for use in validation

1. Double-click the **Word 2013** icon on the desktop to open **Microsoft® Office®**.
2. Click **Blank document**. A blank **Word** document opens.
3. Type *Passport #354890904* on the document.
4. Select **File > Save As > Desktop**.
5. Type *PassportNumber.docx* in the **File name** file.
6. Click **Save**.
7. Select **File > Close**.
8. Close **Word**.

Part 4: Validate the configurations

1. Select **Administrator** from the **Application Switcher**.
2. Select **Resources**. The **Resources** form opens.
3. Click the **Resource Search** tab.
4. Double-click **Emily Ackers**. **Emily Ackers Profile** form opens.
5. Click the **Personal Information** tab.

6. Click **Create** in the **Travel Documents** section. The **Travel Document** form opens.
7. Type *<today's date>* in the **Effective Date** field.
8. Select **Passport** from the **Travel Document Type** drop-down list.
9. Type *<any number>* in the **Document Number** field.
10. Scroll to the **Attachment Information** section.
11. Click the **File** icon in the **File** field.
12. Select **Desktop > Passport Number.docx**.
13. Click **Open**.
14. Click **Save**. A dialog box opens with the message, "Object of type "application/vnd.openxmlformats-officedocument.wordprocessingml.document" contains blocked content."
15. Click **Close**.
16. Click **Home**.
17. Click **No**.
18. Keep the Chrome browser open for the next exercise.



Although the option is available to delete MIME types, Infor recommends that you do not delete them because the audit logs will be missing data that may affect records and forms. Instead, you should select one of the following:

- Block – The MIME type will not be allowed to upload.
- Inactivate – The MIME type is not an option on the form.



Check your understanding



What five configurations can you make in the data area?



1. _____
2. _____
3. _____
4. _____
5. _____



Lesson 7: Personalization overview

Estimated time

2 hours

Learning objectives

After completing this lesson, you will be able to describe how to use the My Personalizations Console. In this lesson, you will:

- List the components that can be personalized.
- Describe security access for the My Personalizations Console.
- Describe how to personalize a list.
- Describe how to personalize a form.

Topics

- My Personalizations Console
- Personalizing a list
- Personalizing a form
- Check your understanding

My Personalizations Console

Personalizations are changes end users make to enhance their own experience. These changes are done through the My Personalizations Console.

Personalizations allow users to change application components to help increase efficiencies as described below:

- Hide fields that are irrelevant to their workflow
- Change label text to make fields stand out on the form or match corporate standards or other components
- Rearrange fields to make a form easier to navigate

End users have a limited set of personalizations they can complete as opposed to what can be configured. Users cannot modify reports, create or modify actions and action requests, or create or modify business classes and the relations among business classes.

The following table shows the differences between what can be configured and what can be personalized:

Configurations	Personalizations
<ul style="list-style-type: none">• Menus• Pages• Composite forms• Lists• Forms• Reports• User action requests• User-defined actions• User actions• Business classes• Relations	<ul style="list-style-type: none">• Pages• Lists• Forms• Reports

The user may have the option to push the personalization to everyone as a configuration with the Make Global option. Make Global is available only if the user is given the security role of ConfigurationAccess_ST or ApplicationAdministrator_ST, and IEFINBaseSystemAndDataAccess_ST (limited access)



Administrators can personalize menus and pages.

The application components that can be personalized are described in the following table:

Application component	Description
Lists	Lists are components that can be personalized as part of pages and business classes. Lists can be modified by adding, deleting, or hiding fields and labels.
Fields	Fields can be made editable or rearranged on a list to make a user's work efforts more efficient.
Labels	Labels can be added to fields to make them more visual appealing, including changing the color.
Forms	Forms, like lists, can be modified by adding or deleting fields and labels.

Status settings

A user has the option to delete or inactivate a personalization, which serves the same function as “reset” in the application object.

There are three available status settings:

- **Active** for personalizations that are currently in place.
- **Inactive** for personalizations that you may have made and want to keep for future use, but you don't want them applied now. This resets the given control back to the delivered application or configuration.
- **Invalid** for personalizations that are outside of protocols or where a conflict exists between an application upgrade in the LPL and what the user has made for a personalization. These items are colored red in the list of personalizations.



When My Personalizations does allow a user to edit the LPL, Infor recommends that users do not edit the LPL unless they understand the LPL syntax. Users can click the Edit LPL icon or the View Base LPL link to view the LPL and report any issues.

Personalizing a list

A list displays the records (or sub records) from a database table. To personalize a list and make workflow more efficient, a user can add, remove, edit, or change the position of a field, create criteria for the type of data displayed in the list using the Condition Builder, change the layout of columns, and for some lists, change the sort order of the columns. The personalized list definition can then be saved to a folder to create personalized reports.

Within the structure of the Infor Landmark applications, lists are designed to be relational. When a user personalizes a list on one page, then every page that the list is used reflects those personalizations as well.



In some cases, you are working with “live” data when you personalize and can add and delete data from lists. Take care when working with personalizations to alter system data only if you intend to do so.

Changing the panel layout

You can change how columns appear in your view by adding or deleting fields (columns), changing labels, changing sort order (the order in which actual data in the columns is presented), and, for numeric columns, adding totals.

Adding a field

Within the Infor Landmark applications, the user can add a related field to a list. For example, an administrator may have tasks that include monitoring work assignments, changing positions, updating education records, or sorting reports by direct supervisor.

The initial sets of fields in the Field Chooser are those that are defined in the business class of the list. For example, in the business class EmployeeAppraisal, the key fields are HROrganization, Employee, and EmployeeAppraisal. The remaining fields in the Field Chooser are related to that business class.

A key field has two purposes.

- By itself, it is the key for that record.
- It has the implicit relation to the rest of the fields within that business class.

The columns used in the List Editor are described in the following table:

List Editor column	Description
Type	Type identifies the type of field.
Field	Field is the name of the field within the application object or business class.
Label	Label is defined by the business class unless the user chooses to personalize it.

List Editor column	Description
Allow Update	Allow Update column has two options. The options are Yes (Y) or No (N).
Sort Order	Sort Order is the order in which the data will display.
Totaling	Totaling is the totaling option the user has selected.

Removing a field

When a delivered list has fields that are irrelevant to a workflow, the user may choose to remove the fields from the list. For example, if the Daily Task list does not require the user to enter or report on credentials in the resource search, the user may choose to remove the Credential field from the list.





Scenario: Personalize a list

The **HR Administrator** will personalize the **Resource Search** list by adding **Start Date** and removing the **Relationship** field from the list.



Exercise 7.1: Personalize a list

In this exercise, you will personalize a list by adding and removing fields on the list.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Add a field to the list

1. Confirm you are connected to **GHR** in **InforOS Portal/Ming.le**.
2. Select **Administrator** from the **Application Switcher**. The quick links page displays.
3. Select **Resources**. The **Resource Search** form opens.
4. Click **All Actions Menu (...)**.
5. Select **Options > Personalize > Create**. The **List Editor for list Resources** window opens.
6. Select **+ > Add Field**. The **List Column Editor** window opens.
7. Select **Search**.
8. Type *StartDate* in the **Search** field to narrow the fields available.
9. Select **StartDate**.
10. Click **OK** to return to the **Field Picker** window.
11. Select **Start Date** near beginning of field and “drag and drop” placing directly below **Employment ID**.
12. Click **OK** on **Personalize** window. The Resources form with Start Date displays in the list to the right of Employment ID.
13. Select **Search** to load employees. The new field displays in the list.

Note: we cannot sort the data using this new list field. We will add the ability to sort on this field in the next exercise.

Part 2: Remove a field from the list

1. Select **All Actions Menu (...) > Options > Personalize > Update**. The **List Editor for list Resources** window opens.
2. Select **Relationship**.
3. Select **Delete** “trash can” icon.

4. Click **OK**. You return to the **Resources** form. The **Relationship** field is removed from the **Resource Search** list.
5. Keep the **Chrome** browser open for the next exercise.

Changing the order of a list

The user can change the order of the columns to suit his or her preference. For example, when reviewing work assignments, it may be more important to have organizational unit as the default sort for easier reporting and searching purposes.



Scenario: Change the default sort order on the Resource Search list

The **HR Administrator** will change the default sort order from **Last Name** to **Employment ID** in the **Resource Search** list.



Exercise 7.2: Change the default sort for a list

In this exercise, you will personalize the Resource Search list by changing the default sort from Last Name to the Employment ID in descending order. This will automatically sort by the most recent employees entered in the system.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

1. Confirm you are connected to **GHR** in **InforOS Portal/Ming.le**.
2. Select **Administrator** from the **Application Switcher**. The quick links page displays.
3. Select **Resources**. The **Resource Search** form opens.
 1. Click **Search**. The data populates in the list. Note that the list currently has a default sort order using the employee Last Name.
 2. Select **All Actions Menu (...)** > **Options** > **Personalize** > **Update**. The **List Editor for list Work Assignment Search** window opens.
 3. Select **EmploymentID**.
 4. Expand **Sorting And Totaling**.
 5. Select **Default sort**.
 6. Select **Descending**.
 7. Click **OK**. You return to the **Work Assignment Search** form.
 8. Click **Search**. The data populates with the new default sort order.
 9. Keep the **Chrome** browser open for the next exercise.



Scenario: Add a Relationship Status field to the Resource Search list and make it editable from the list

The **HR Administrator** will add a **Relationship Status** field to the **Resource Search** list. In addition, the **HR Administrator** will make the field editable from the list.



Exercise 7.3: Add a field to a list and make it editable

In this exercise, you will personalize a list by adding a field to the list and making it editable.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

1. Confirm you are on the **Resource Search** list in GHR. If not, select **Administrator > Resources**.
2. Select **All Actions Menu (...) > Options > Personalize > Update**. The **List Editor for list Resources** window opens.
3. Select **+ > Add Field**. The **List Column Editor** window opens.
4. Select **Search**.
5. Type *Relationship* in the **Search** field to narrow the fields available.
6. Select **RelationshipStatus**
7. Click **OK**.
8. Select the **Updateable** check box.
9. Click **OK** to return to the **Resource Search** form. **Relationship Status** displays in the list.
10. Select **Search** to load employees.
11. Click in the **Relationship Status** field of **<any resource record>** to display the **Search** icon.
12. Click the **Search** icon. A list of status options displays.
13. Click **Cancel**.
14. Click **Home** to return to the **Welcome to the Administrator homepage**.
15. Minimize the **Chrome** browser to return the **Desktop**.

Personalizing a form

A form can be personalized by adding or removing a field, formatting its appearance, setting validity constraints to only certain values or adding actions to the form. For example, an HR generalist may choose to modify labels on the Employee form to alert them to changes or hide fields they find distracting.

The options to personalize forms are described in the following table:

Options to personalize a form	Description
Display	The Display option allows the user to either display or hide a field on a form.
Default	The Default option allows the user to set the initial value of the field. Depending on the type of field, the values can be defined by entering text or by selecting a pre-defined state.
Data options	The Data options can be personalized so it is a required field as well as building a condition statement to limit the values that can be entered.
Label	The Label option is used to personalize a field by changing the style attributes of the font such as color, bold, and italics to draw attention to certain fields.
Conditions	<p>The Condition Builder allows the user to build filter conditions to create a personalized list.</p> <p>A user can add more than one condition on the Condition Builder.</p> <ul style="list-style-type: none">● If All is selected, all conditions must be met.● If Any is selected, any one of the conditions must be meet. <p>Conditions are sorted alphabetically. Results include next level: Field States, Key Field fields, Group Field fields.</p>





Scenario: Personalize fields on a form

The **HR Administrator** will hide the **Employment ID** field, change the **Birthdate** to display in bold green font, and make the **Marital Status** field read only.



Exercise 7.4: Personalize fields on a form

In this exercise, you will personalize a form by personalizing fields on the form.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View fields on an employee record

1. Verify you are logged into **Infor OS GHR** and the **Administrator** home page displays.
2. From the **Quick Links** page, click **Resources**.
3. Click **Search** to load resource records.
4. Double-click **<an employee record>**. **<The employee's Profile>** form opens.
5. View the **Employment ID** field in the top of the form. You will remove this field.
6. View the **Birthdate** field in the **Dates & Services** section. You will change this field to Birth Date and personalize it to display in green.
7. View the **Marital Status** field in the **Personal Information** section. You will change this field to display as output only.
8. Press **Ctrl + Shift + click** in the **Dates & Service** section. The **Component Info** dialog box opens.
9. Confirm the Parent business class is **Employee**.
10. Confirm the Form Panel name is **LRCDetail**.
11. Click **Close**.

Part 2: Personalize fields on a form

1. Select **Configuration Console** from the **Application Switcher**.
2. Select **Personalization > Create**.
3. Select **Form**. The **Personalize Form** page opens.
4. Type or select *Employee* in the **Business View** field.
5. Type or select *LRCDetail* in the **Form** field.
6. Click **Submit**.

7. Click **Edit**. The Edit LPL form displays.
8. Place the cursor at the end of **Employee**.
9. Press **Enter**. A blank line displays below **Employee**.
10. Press **Tab**.
11. Type *hidden*.
12. Place the cursor at the end of **Birthdate anniversary**.
13. Press **Enter**. A blank line displays below **Birthdate anniversary**.
14. Press **Tab**.
15. Type *label is untranslatable:"Birthdate"*.
16. Press **Enter** to create a new line.
17. Press **Tab**.
18. Type *color of green*.
19. Press **Enter** to create a new line.
20. Type *bold*.

```
Birthdate anniversary
  label is untranslatable:"Birthdate"
    color of green
    bold
    display as text
```

21. Place the cursor at the end of **MaritalStatus**.
22. Press **Enter**. A blank line displays below **MaritalStatus**.
23. Press **Tab**.
24. Type *display as text*.

```
MaritalStatus
  display as text
```

25. Click **Submit**. The personalization is saved.

Part 3: Validate the personalizations as IN01

1. Select **Administrator** from the **Application Switcher**. The quick links page displays.
2. Select **Resources**. The **Resource Search** form opens.
3. Click **Search**. The data populates in the list.
4. Double-click **<any record>**.
5. Confirm the **Employment ID** field does not display.
6. Confirm the **Birth Date** field label displays in **green, bold**.
7. Confirm the **Marital Status** field displays as output only (the drop down is disabled).

Part 4: Validate the form view as ST05

1. Right-click the **Chrome** icon on the taskbar.
2. Select **New Incognito Window**.
3. Click the **Infor Ming.le** favorites shortcut.
4. Type *ST05@gdeinfor2.com* in the **someone@example.com** field.
5. Type *Tr@in123* in the **Password** field.
6. Click **Sign In**. The **Welcome to Infor Ming.le™** window opens.
7. Select **App Menu > GHR**. The desktop for **Tony Cleveland** displays.
8. Select **Administrator** from the **Application Switcher**. The quick links page displays.
9. Select **Resources**. The **Resource Search** form opens.
10. Select **<any resource record>**. The **Employee Profile** form opens.
11. Confirm the **Employment ID** field displays.
12. Confirm the **Birthdate** field displays without green bold font.
13. Confirm the **Marital Status** field displays as a drop down.
14. Close all Chrome browser windows.

Working with Personalizations

From the Configuration Console > Personalization > Console or Master options, you can work further with items that have been personalized by users. An organization must decide how to administer personalization when configurations or updates are done. It may be a policy to Deactivate or Delete personalizations on objects involved in a configuration or code update. The Personalization Console will allow you to work directly with the objects across the data area.

Personalizations can be made into a Configuration from the console. Personalizations can be shared with an Actor or Actor Group. Personalization can be tagged for moving between instances of the application such as PRD to TST etc. The use of tagging and Change Management in general is covered in Lesson 11.

Check your understanding



What is used to build a filter condition to create a personalized list?





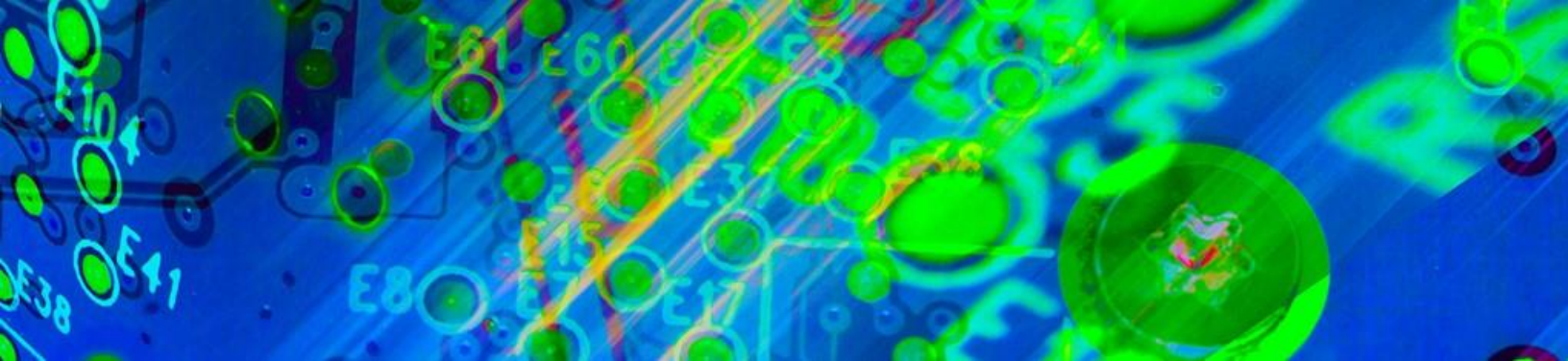
How does personalization help to increase a user's efficiencies?





Which one of the following security roles is required for a user to make personalization changes?

1. PersonalizationAccess_ST
2. Personalization_ST
3. ConfigureAccess_ST
4. AllAccess_ST



Lesson 8: Creating and managing Landmark application reports

Estimated time

3.5 hours

Learning objectives

After completing this lesson, you will be able to describe how to create and manage Landmark application reports. In this lesson, you will:

- Identify where you can create Landmark application reports.
- Explain how lists can be used to create basic reports.
- Describe how reports can be personalized.
- Describe the different ways you can view reports.

Topics

- Landmark embedded reports overview
- Creating reports in the Landmark Web User Interface
- Check your understanding

Landmark embedded reports overview

Landmark reports can be created using the Create Report and Personalize options.

Reports are based on lists (a set of data) and lists in of themselves are basic reports. Lists filter data and display the columns of data that you need.

Lists are starting templates for you to build your reports. Once you create the report, the report can be viewed as a portable document file (PDF).



Creating reports in the Landmark Web User Interface

When you create a report in the Landmark Web User Interface, you can select the list and then select Options > Create Report. You can also personalize the report by selecting Options > Personalize.

Using Create Report

When you use the Create Report option, you can filter data by selecting conditions. By clicking the Advanced Properties tab, you can select Use Audit Data or Use Live Data.

- Use Audit Data reports across the audit log as to how changes have occurred across time. You can also refine how records have changed over time.
- Use Live Data is data as of the current day or as of a prior date.

You take a snapshot of the report once you create it. The report is always up to date. If values change, for example, invoices are updated, the report updates once you click Refresh.

Reports are actionable. You have access to actions that you had available on the list.

Reports are editable by changing and allowing updates on certain fields.

Personalizing the report

Once you have created the report, you can personalize the report by adding and removing columns, moving columns, adding, totaling, or changing the sort order.





Exercise 8.1: Create a report in the Landmark Web User Interface

In this exercise, you will create and personalize a report in the Web User Interface.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Create a report

1. Use the **InforOS Portal/Ming.le App Menu** to select **Infor CloudSuite Financials & Supply Management**.
2. Select **Payables Manager** from the **Application Switcher**.
3. Click **Manage Invoices**. The **Unassigned Invoices** form opens.
4. Click the **Released** tab. A list of released invoices displays.
5. Select **All Actions Menu (...)** > **Options** > **Create Report**. The **Create Report** dialog box opens. **ReleasedInvoices** displays in the **List Title** field.
6. Type *Released Invoices Report* in the **List Title**.
7. Click the **Filter** tab.
8. Click the **Builder** button. The **PayablesInvoice Condition Builder Helper** opens.
9. Select **APClerkEntered** in the **Field Picker**.
10. Click **OK**.
11. Select **True** in the **State** drop down field.
12. Click **OK**.
13. Click the **Append** button.
14. Click the **Data Source** tab.
15. Select the **Use Live Data** radio button.
16. Click **Create And View Report**. The **Released Invoices Report** opens.
17. Review the existing filters applied to this list.
18. Click **Create And View Report**. The **Released Invoices Report** opens.
19. Click **All Actions Menu (...)**.
20. Review the actions available for the report.

Part 2: Sort the report

1. Select **All Actions Menu (...)** > **Options** > **Personalize** > **Update**. The **Personalize Editor for list Released Invoices Report** window opens.

2. Click the **Column** tab.
3. Select **Vendor** from the list.
4. Expand **Sort and Totaling**.
5. Select **ByVendor** from the **Sort Order** drop-down list (*hint: it's the last entry in the drop-down list*).

Part 3: Add totaling to the report

1. Select **InvoiceAmount** from the list.
2. Expand **Sort and Totaling**.
3. Select **Total** from the **Totaling** drop-down list. (Scroll if needed)
4. Click **OK** to return to **Released Invoices Report**.
5. Review the sorting and totaling for the report.

Part 4: View the report in My Reports

1. Select **My Reports** located in the top-left corner of the screen above the search field. The **All Reports Viewable By Me** form opens.
2. Click the **View Report** link that is associated with your **Released Invoices Report**. Your **Released Invoices Report** opens.

Part 5: Print to PDF

1. Select **All Actions Menu (...) > Options > Print To PDF**. The **Print To PDF** dialog box opens.
2. Click the **Advanced Options** button.
3. Select the **All Records** radio button.
4. Click **Print**. Your PDF is generated.
5. Select **My Print Files** located in the top-left corner of the screen above the search field.
6. Click **View** beside your **Released Invoices Report - Print To PDF**. Your **Released Invoices Report** opens in PDF in a new tab.
7. Scroll through the report to view the details.
8. Close the PDF tab to return to **Infor CloudSuite Financials & Supply Management**.
9. Keep the **Chrome** browser open for the next exercise.

Additional Report Features

You have several powerful options for creating, managing, and personalizing reports using the Landmark Web UI.

Options to personalize a report	Description
Create Actor Groups for report distribution	You can share your reports with actor groups that you create. Once you create the actor group, you can manually assign actors to the actor groups, or you can use IPA. You can share these reports with specific filters and with specific information. These reports display in My Reports.
Adding Alerts	You can add alerts to reports. Alerts come with delivered conditions, or you can create your own conditions.
Add Compute Fields	You can add compute fields to reports. This allows you to get a total across the children records and pull the children records into the report. When you add a compute field, you can sum, count, and average across parent-child relationships.
Related Reports	There is an option for creating related reports. These are reports that someone else created that you have access to. You can also create a report based on a related report.





Exercise 8.2: Add alerts to reports

In this exercise, you will add an alert to a personalized report.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **My Reports** located in the top-left corner of the screen above the search field. The **All Reports Viewable By Me** form opens.
3. Click the **View Report** link that is associated with your **Released Invoices Report**. Your **Released Invoices Report** opens.
4. Select **All Actions Menu > Options > Personalize > Update**. The Create Report window opens.
5. Expand **Alerts**.
6. Click the **Create (+)** dropdown.
7. Select **Add Green Alert**.
8. Search for and select the **AutoApproved** condition.
9. Type *Vendor is Auto Approved* in the **Mouse Over Text** field.
10. Click **OK**. The report displays.
11. In the **Vendor filter search box**, type 2.
12. Select **enter**.
13. Review the sorting and green alert. (Mouse over of Vendor is Auto Approved.)
14. Keep the browser open for the next exercise.



Exercise 8.3: Create an actor group

In this exercise, you will create an actor group and distribute a report to members of the group.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Share the report with the actor group

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Confirm the **Released Invoices Report** displays. If it does not, open the report.
3. Select **All Actions Menu > Options > Personalize Report**. The **Report Editor – Released Invoices Report** window opens.
4. Select **All Actions Menu > Options > Personalize > Update**. The Create Report window opens.
5. Select **Group** in the Sharing drop-down.
6. Select the drop-down in **Actor Group** field.
7. Click **Create**. A new tab displays with the Actor Group form.
8. Type *ABC COMPANY* in the **Actor Group** field.
9. Click **Save**.
10. Select **Create** in the bottom of the **Actor Group** form. The **Actor Group Member** form opens.
11. Type **ST05** in **Actor** field.
12. Click **Save**.
13. Close the **Actor Group** tab.
14. Select **ABC COMPANY** from list. *Note: if you do not see it in the list, use the search box to refresh the list.*
15. Click **OK** to close the Actor Group form.
16. Click **OK** to close the Create Report form.

Part 2: Access the report as ST05

1. Right-click the **Chrome** icon on the **Landmark 11 (Landing Server)** taskbar.
2. Select **New Incognito Window**.
3. Click the **Infor Ming.le** favorites shortcut.
4. Type *ST05@gdeinfor2.com* in the **someone@example.com** field.
5. Type *Tr@in123* in the **Password** field.

6. Click **Sign In**. The **Welcome to Infor Ming.le™** window opens.
7. Select **App Menu > Infor CloudSuite Financials & Supply Management**. The desktop for **Tony Cleveland** displays.
8. Select **My Reports**.
9. Select **Released Invoices Report**. The **All Reports Viewable By Me** form opens.
10. Click **View Report**. The **Released Invoices Report** opens.
11. Close the **Incognito** browser to return to the original Chrome window.
12. Keep the Chrome window open for the next exercise.

Adding line detail

Once you create a report, you can add line detail to the report. This allows you to add more detailed information to the report. Once you create your detailed report, you can print and view the report in several ways:

- Current list
- Current list with details
- Selected record with details



Exercise 8.4: Create a report with line detail

In this exercise, you will create a report with line detail.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Add line detail using LPL

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Configuration Console** from the **Application Switcher**.
3. Select **Report > Master**. The **All Reports** page opens.
4. Type *IN01* in the Owner search box.
5. Press **Enter**. The two reports for this actor display.
6. Double click **Released Invoices Report**. The configured report displays.
7. Click the **Edit LPL** tab.
8. Click **Edit**.
9. Scroll to the end of the LPL syntax.
10. Press **Enter** after **action is refresh**. **Note:** This is at the very end of the LPL.
11. Press **Backspace** twice.
12. Type *Detail Sections*.
13. Press **Enter**.
14. Press **Tab**.
15. Type *Lines*.
16. Press **Enter**.
17. Press **Tab**.
18. Type *list is PayablesInvoiceDetail set.primary*.


```

    action is refresh
    label is " _ "
Detail Sections
Lines
    list is PayablesInvoiceDetail set.primary

```

19. Click **Submit**. You return to **Configured Report: Released Invoices Report**.

Part 2: View the report in My Reports

1. Select **My Reports** located in the top-left corner of the screen above the search field. The **All Reports Viewable By Me** form opens.
1. Click the **View Report** link that is associated with your **Released Invoices Report**. Your **Released Invoices Report** opens. Header information displays at the top. The **Lines** tab displays at the bottom of the report.
2. Search for invoice **4024PO CLOSE**.
3. Select invoice **4024PO CLOSE**. The line associated with invoice **4024PO CLOSE** displays in the **Line** tab.

Part 3: Print the report

1. Select **All Actions Menu > Options > Print To PDF**. The **Print To PDF Options** window opens.
2. Expand the **Advanced Options** menu.
3. In the **Print Options** dropdown, select **Current List With Details** from the drop-down list.
4. Click **Print**.
5. In the left navigation pane, select **My Print Files**. The **Print Files** form opens. Your **Released Invoices Report** displays in the list.
6. Click **View**. The **Released Invoices Report** opens in PDF with just the selected lines.
7. Close the **Released Invoices Report** tab.
8. Keep the browser open for the next exercise.

Adding logos

You can personalize your reports even further by adding your company logo. Use the User Image Form to upload your logo to the Landmark system. This logo will be stored in the User Image List. This list is accessible by selecting Start > Applications > Landing Page Designer.

You can add up to three user image records for a logo. When you add your logo, there are three keys you can identify:

- Reportfirstpageheader
- Reportpageheader
- Reportpagefooter

Parameters for logos can be set on the Configuration Parameters form accessed through the Administration Console.



Exercise 8.5: Add a logo to a report

In this exercise, you will add a logo to report.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Configure parameters

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **InforOS Portal/Ming.le**.
2. Select **Administration Console** from the **Application Switcher**.
3. Select **Configuration Parameters**. The **Configuration Parameters List** form opens.
4. Select **Actions > Create**. The **Configuration Parameter** form opens.
5. Type *pdf* in the **Component** field.
6. Select **pdf** from the **Predefined Component** field.
7. Type *HeaderAlign* in the **Key** field.
8. Select **Alpha** from the **Type** drop-down list.
9. Type *Right* in the **Value** field.
10. Click **Save**.

Part 2: Configure the logo

1. Select **Landing Page Designer** from the **Application Switcher**.
2. Select **User Images**. The **User Image List** opens.
3. Right-click the Infor “I” image in the upper left next to App Menu.

4. Select **Save image as....**
5. Click **Desktop**.
6. Click **Save**.
7. Select **Create**. The **User Image Form** opens.
8. Type *reportfirstpageheader* in the **User Image** field.
9. Type *reportfirstpageheader* in the **Description** field.
10. Type 34 in **Preferred Height** field.
11. Type 64 in **Preferred Width** field.
12. Click **Browse** on Image field.
13. Select **Desktop > i_icon.png**.
14. Click **Open**.
15. Click **Save**.

Part 3: Print the report to view the logo

1. Select My Reports.
2. Click the **View Report** link that is associated with your **Released Invoices Report**. Your **Released Invoices Report** opens.
3. Select **All Actions Menu > Options > Print To PDF**. The **Print To PDF Options** window opens.
4. Select **Advanced Options**.
5. Select **Current List With Details** in Print Options.
6. Click **Print**.
7. Select **My Print Files**.
8. Click **View**. The report opens. The **Infor** logo displays on the first page header of the report.
9. Close the **Released Invoiced Report** tab.
10. Close the **My Print Files** form.
11. Close the **Chrome** browser to return the desktop.

Check your understanding



How can an administrator share reports with different groups?





What is the starting point for creating reports?





Lesson 9: Security configurations overview

Estimated time

1 hour

Learning objectives

After completing this lesson, you will be able to describe Landmark Security. In this lesson, you will:

- Define Landmark Security.
- Identify the paths for accessing the Configuration Console for security.
- Describe security access.
- Define security terminology.
- Describe the relationship between roles, security classes, and rules.
- Discuss the benefit of using standard templates.
- Describe how security classes are organized.
- Describe configurable features.

Topics

- Landmark Security overview
- Accessing the Configuration Console for security
- Security terminology
- Overview of roles, security classes, and rules
- Standard templates
- Security class organization
- Configurable features
- Check your understanding

Landmark Security overview

Landmark Security is a technology application that is built on the Landmark platform. The two areas of security coverage provided by Landmark Security are authentication and authorization.

- Authentication – Who are you?
- Authorization – What rights do you have?

Landmark Security provides features for authentication and authorization. All users begin with no access. It is intended that not everyone have access to every page and form. Access needs to be granted to perform an action or have visibility to data. Some users are able to change data on a form, while others can view the data. Some may not be able to see the form at all. Access to data or visibility to information is accomplished using security classes. Security allows you to secure all the way to the field level.

Security is a highly flexible rule- and roles-based system for securing your applications. Role-based security means that users of the system are assigned to security roles.

How security works

Security rules are written on security classes. Rules grant or remove access to application objects. Security classes are then assigned to a role and roles assigned to users, which are defined as actors.



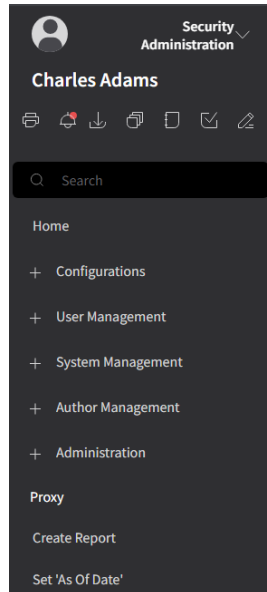
Accessing the Configuration Console for security

You use the Configuration Console to configure security policies and rules for an organization.

Configuration changes to security made by a security administrator in the Configuration Console are global, meaning they affect all Landmark users.

Accessing the Configuration Console for security

Using the Landmark Web UI, access the Security Administration role.



After you access the Configuration Console, you can act based upon the security classes assigned to your roles as shown in the following table:

If you want to grant permission for this task...	Then assign these security classes...
Modify security classes	SecurityConfigAccess_ST and ConfigAdminAccess_ST
Work with actors, identity, and roles	SecurityConfigAccess_ST and UserAdminAllAccess_ST



If a user has the UserAdminAllAccess_ST security class but not the SecurityConfigAccess_ST security class, that user can work with actors, identities, and roles outside of the Configuration Console.

Security terminology

The important terms that you need to know to understand security are defined in the following table:

Term	Definition
Actor	An actor is a user who acts on the system. An actor is linked to an identity to allow a subject (person or process) to access the functionality assigned in the roles linked to that actor.
Role	A role is a set of access rights that allows a user access to the system. Roles are task-based meaning that they are intended to describe a job that a user performs, rather than describing the user. Examples of delivered roles are Employee, HRGeneralist, Buyer, Contract Manager, and Payables Administrator.
Security class	A security class is a container for rules that provides access to a specific task; for example, the employee's ability to maintain his or her own employee record.
Security rule	A security rule describes a specific access right to the system; for example, an access to a form is granted with no restrictions, or only allows viewing but not updating.
Securable object	Securable objects are specific entries within an area of Landmark. A securable object in a Landmark application may be the data area, module, business class, or actions.



Overview of roles, security classes, and rules

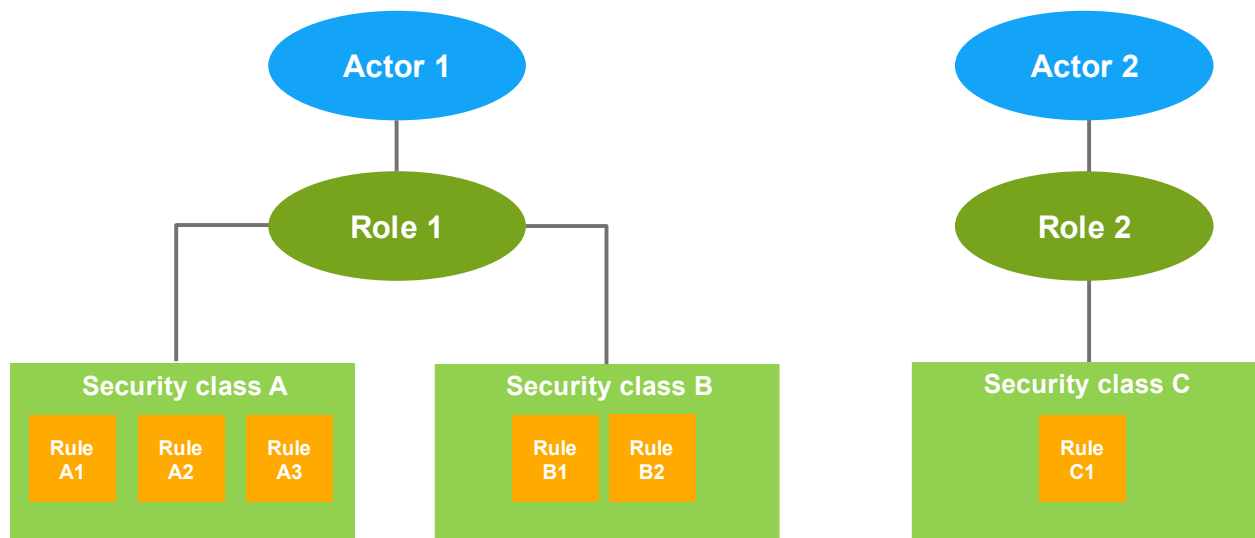
With so much sensitive data in an organizational system, it is necessary to control who can enter certain areas, and view and interact with certain objects. With Landmark Security, this control is exercised through the assignment of rights.

Within a large organization, how can you assign access rights efficiently? The answer is by creating a security structure that contains roles, security classes, and rules that regulate who can access various areas of the system.

Security structure is constructed as follows:

- An actor is provided a role or multiple roles to identify his or her job with the organization.
- Security classes are assigned to a role to provide access to specific areas of the application.
- There are defined rules within each security class to identify the specific functions a user can do within his or her area of the application.
- After you create roles and security classes, you assign security classes to roles, and then assign roles to actors within the system.

The following diagram shows the relationships between roles, security classes, and rules:



Roles, security classes, and rules

Least restrictive rule takes precedence

When assigning multiple roles to an actor, the least restrictive security rule takes precedence over the role with the most restrictive rules.

For example, if an actor has the roles of DirectSupervisor_ST (more restrictive) and HRGeneralist_ST (less restrictive), the HRGeneralist_ST security role permissions provide greater access to the data and actions over the DirectSupervisor_ST permissions.

Standard templates

The initial setup of security classes and roles can be a difficult and time-consuming process if you need to define them from scratch. Infor makes your job easier by delivering standard templates with pre-defined security classes and roles. The templates are designed based on what most customers do. The templates are a way to get your system up and running quickly.



All security classes that belong to a template can be identified by the suffix “_ST” which indicates that it belongs to a standard template.

You cannot modify the templates. If the security classes and roles do not suit your business needs, you can create security classes and roles using the Configuration Console.

Using LPL

Security uses LPL to write security instructions. All the instructions, called declarative instructions, are written in LPL. When we talk about security classes, for example, that is just an LPL statement.

Changes you make to security are made in real time with no system down time. If an administrator is concerned about a potential threat to the system, the administrator can use the Configuration Console, change a rule and access to users is removed.



Security class organization

Security classes are organized into four main types, which are described in the following table:

Security class type	Description
View setup components	<p>The view setup components security class type is for roles that need only view access to components.</p> <p>Examples:</p> <ul style="list-style-type: none">• A hiring manager only needs to view candidate forms during the interview process.• A department manager has permission to view the terms set up for a contract.
Maintain setup components	<p>The maintain setup components security class type is for roles with responsibility to update or make changes to components.</p> <p>Examples:</p> <ul style="list-style-type: none">• An HR generalist is responsible for adding positions in the Candidate space and has permission to add and modify the forms and records.• A contract administrator is responsible for setting up manufacturers and has permission to add new manufacturer records.
View transactional data	<p>The view transactional data security class type is for roles that need view-only rights to transactional data.</p> <p>Examples:</p> <ul style="list-style-type: none">• An employee only needs to view his or her compensation history.• A manager has permission to view spend amounts for his or her department.
Maintain transactional data	<p>The maintain transactional data security class type is for roles that need full access to transaction data.</p> <p>Example:</p> <ul style="list-style-type: none">• A direct manager has access to maintain the appraisal records for the employee and submit it through the process flow.• The legal department may want to review and finalize a contract before it becomes active.



Infor CloudSuite Financials and Supply Management also have menu type security classes.

Naming conventions

Security classes can easily be identified by a unique naming convention, which are described in the following table:

Naming convention	Description
Module	Module indicates the component of a product suite; for example, GHR represents Global Human Resources.
Role	Roles have access to specific data; for example, if you are a manager, access to employee data is given as his or her direct manager. This access is not given to other roles.
Feature	Feature is the part of the module that applies to the security class; for example, self-access, goal activity, or invoices.
Access rights	Access rights indicate what the security class can do; for example, update or inquire.

In the following image, the employee security class for GHREmployeeSelfAccess_ST has access rights, while the GHRJobAndPositionInquiry_ST security class only has inquiry rights.

The screenshot shows the 'Role Security Class' configuration page. At the top, the 'Role Name' is 'Employee_ST'. Below, the 'Security Classes Assigned To Role' tab is active. A table lists security classes for the 'GHR' module. Two classes are highlighted with red boxes and arrows:

	Data Area	Security Class
<input type="checkbox"/>	HCM	GHRBackgroundActionAccess_ST
<input type="checkbox"/>	HCM	GHRBankDetailsAccessEmployee_ST
<input type="checkbox"/>	HCM	GHREmpInquireAccessAP_ST
<input type="checkbox"/>	HCM	GHREmpMngResrcTransitionTasks_ST
<input type="checkbox"/>	HCM	GHREmployeeRecognitionAccess_ST
<input type="checkbox"/>	HCM	GHREmployeeSelfAccess_ST
<input type="checkbox"/>	HCM	GHREmployeeWebAppAccess_ST
<input type="checkbox"/>	HCM	GHRJobAndPositionInquiry_ST
<input type="checkbox"/>	HCM	GHRMentorHRAccess_ST
<input type="checkbox"/>	HCM	GHRSetupInquiryAccess_ST
<input type="checkbox"/>	HCM	GHRTextSearchAccess_ST

Security class naming convention example

Configurable features

Configurable features allow security administrators to control the user interface features that security roles can and cannot use. Features like Create Report, Share Reports, Export to CSV, Personalization, and Configuration Console can be enabled and disabled.

The configurable features feature itself is delivered as disabled. An administrator with access to the Configure Security in the Configuration Console and Configuration Parameters must enable configurable features on the Configuration Parameters list and then tailor each role in the Configuration Console to enable and disable the user interface and Landmark features.

Configurable features can be set up when enabled to reflect the default setup. In other words, some features are enabled by default because they have been historically delivered that way.

You can view configurable features on an actor record. The information is view-only because the information presented here is derived from all the actor's roles.

Configurable features do not replace security. This functionality hides these features from the user interface and does not do anything to secure the users from any business classes. If you need to be certain users cannot access certain business classes, it is still best to configure security classes and roles appropriately.





Demo: Enable configurable features

This demonstration shows how to enable configurable features.

Notes:

- To prepare the system for future exercises, this demo must be completed.
- If you are taking this course as classroom or virtual instructor-led training, your instructor will demonstrate this task.
- If you are taking this course as self-directed learning, you must complete the steps in this demonstration.

Demo steps

Part 1: Enable configurable features

1. Double-click the **Infor Ming.le** icon on the **Desktop**. The **Infor OS** window opens.
2. Type *IN01@gdeinfor2.com* in the **someone@example.com** field.
3. Type *Tr@in123* in the **Password** field.
4. Click **Sign In**. The **Welcome to Infor Ming.le™** window opens.
5. Select **App Menu > Infor CloudSuite Financials & Supply Management**. The desktop for **Charles Adams** displays.
6. Select **Administration Console** from the **Application Switcher**.
7. Select **Configuration Parameters** tab. The **Configuration Parameters List** form opens.
8. Select **Actions > Enable Configurable Features**. The **Enable Configurable Features** window opens.
9. Review the information.
Note: You will see the statement, "When finished review Roles to enable/disable specific features for Individual Roles."
10. Click **OK**.
11. In the **Key** field search box, type *feature* and press **Enter**. The **configurablefeaturesenabled** key displays with a value of true.

Part 2: Review roles

1. Select **Security Administration** from the **Application Switcher**.
2. Select **User Management > Role**.
3. Double-click **<a role>**. The **Role** form opens.
4. Click the **Configurable Features** tab.
5. Review each section of the form.

Part 3: Review actor roles

1. Select **Actors**.

2. Double-click **<an actor of your choosing>**. The **Actor** form opens.
3. Click the **Configurable Features** tab.
4. Review each section of the form.
5. Close the **Chrome** browser to return the **Desktop**.



Check your understanding



Which one of the following options is a set of credentials that uniquely identifies a user for a particular service or application?

1. Role
2. Identity
3. Actor
4. Username



Which one of the following options is a container for rules that provides access to a specific task?

1. Security class
2. Business class
3. Role
4. Agent



Which one of the following suffixes are appended to delivered security class templates?

1. _TP
2. _SEC
3. _ST
4. _SC



Which two of the following options applies to roles?

1. When assigning multiple roles to an actor, the most restrictive security rule takes precedence over the role with the least restrictive rules.
2. When assigning multiple roles to an actor, the least restrictive security rule takes precedence over the role with the most restrictive rules.
3. Actors can only be assigned to one role.
4. Roles are tasked based.



Lesson 10: Making security class configurations

Estimated time

3 hours

Learning objectives

After completing this lesson, you will be able to describe how to configure security classes. In this lesson, you will:

- Identify securable objects.
- Define a security policy.
- Identify the three types of security rules.
- Describe how to make modifications to security classes.
- Identify security reports.

Topics

- Security class configuration overview
- Securable objects
- Security policies and rules
- Configuring security classes
- Security reporting
- Check your understanding

Security class configuration overview

A security class is a container for security rules. A security class enables you to create a set of rules that determine the security access needed for a task. After you define your security classes and the rules they contain, you assign security classes to roles. The result is that rules within security classes govern the security for users with those roles.



A security class has no impact until it is assigned to a role, and the role assigned to an actor (user).



Securable objects

To write appropriate security rules, you need to be familiar with both the types of objects that can have security rules written against them and the specific instances of those object types that exist in the part of the system you want to control access to. All the securable object types are listed in the Configuration Console's Navigation pane whenever you select a security class to view. These object types are described briefly in the table below. The Configuration Console also exposes the available securable objects in drop-down lists when you are defining security rules.

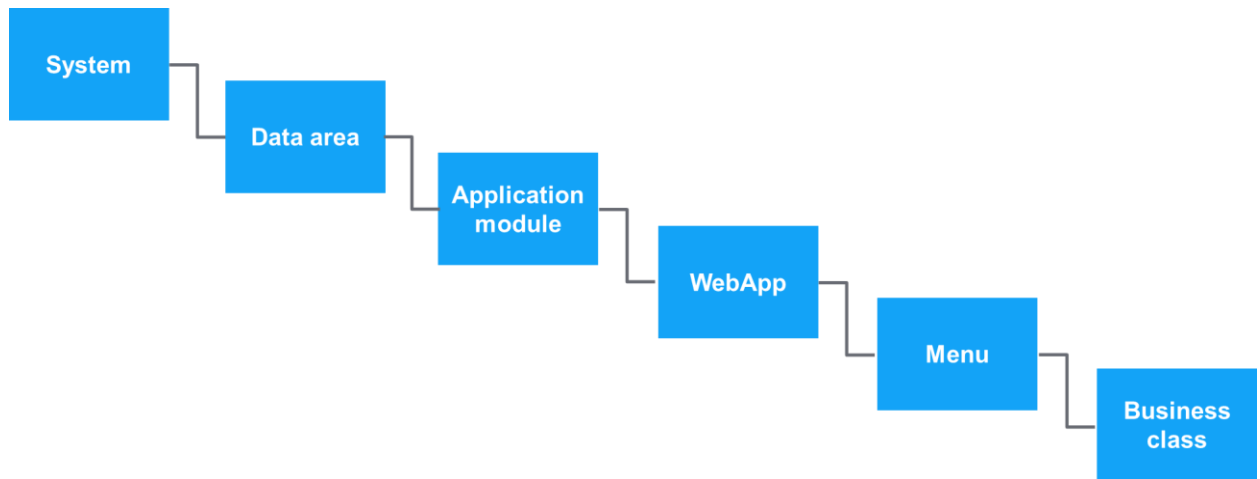
The securable object types are described in the following table:

Object	Description
Type	You can secure all securable objects of a particular type such as Data Area, Module, Menu, BusinessClass, or BusinessTask. Note: When granting unconditional access to the BusinessClass type, you are granting access to all business classes.
Data area	You can secure a data area which refers to the data areas that exist in the system. There is always a gen data area and a data area for each installed product line.
Module	A module is a subset of a data area; each module represents a set of related business classes and tasks.
WebApp	WebApp is a set of modules, menus, and pages designed as an application. For example, the Isuserapp or UserManagementWeb applications.
Menu	Within a module, you can secure access to an entire menu.
Key field	The Key field is a critical field within a business class. You can secure any field designated as a business class key field. Note: When you write security rules for a key field, you generally specify that the access is "for all ontology." An ontological rule propagates a security specification throughout the system, wherever the key field is included in the context of an object. When access is granted to a key field, any business class containing that key field in its context will inherit access. For example, if you restrict access to the key field, Employee, access is restricted to all business classes that are a child of that key field, such as EmployeeAddress or EmployeeContact. This is rarely used in security due to its implications. Business class is the preferred method for security.
Business class	You can secure a set of related fields, somewhat analogous to a database table, but more complex in that a business class also encompasses business logic.
Business task	Business tasks are actions that are securable. For example, for users to be able to work with queues, they must have access to several business tasks for the execution of the queues.

Securable object hierarchy

Securable objects belong to a hierarchy or tree of objects.

The following graphic shows a high-level illustration of the hierarchy:



Securable objects hierarchy



Security policies and rules

A security policy is the set of security rules for a securable object. A security rule is an instruction for security to use to determine the access privileges for users who attempt to use a securable object. You define rules within security classes. If you construct your security classes appropriately, each security class contains the rules needed to determine the access for a user to perform a task. In many cases, there is one rule per policy, but there can be multiple rules.



It is possible to place the rules for many tasks in a single security class, but this makes the security class of limited use. The recommended method is to have security classes correspond to individual tasks. You can then assign the same task-based security class to multiple roles that involve that task.

There are several aspects of security rules to keep in mind as you create them.

Action rules

Action rules apply to one or more actions that are available for the securable object. You can have the security rule apply to all actions or to one or more actions. You can specify to grant access to all actions, but then specify one or more individual actions to exclude.

Inclusion and exclusion rules

You can grant or deny access when you write a rule. Users do not have access to data areas, modules, business classes, and key fields unless access is explicitly granted. However, if a user is granted access to a business class, the user has implicit access to the fields in the business class unless access to one or more is explicitly denied.

Conditional rules

You can write rules that apply in specified circumstances. For example, in the ProxyInquireAccess_ST security class, a user can only have access to actor proxy records if the user is the actor to whom the proxy was granted.



Configuring security classes

There may be times when you need to modify an existing security class. You can modify the security class in the following ways:

- Copy a security class and add to a role
- Add a business class for additional security access
- Remove a business class to limit security access
- Modify business class actions
- Exclude actions
- Limit access to a field
- Limit access based on a specific condition



Modifying security does not always mean that you only make changes to the security configuration. There may be times when you also need to make changes to the application before you make changes to security.





Scenario: Set up the Payables Administrator to have access to tax setup and maintenance only

The **Application Administrator** at ABC Company is required to create a **Payables Administrator** role with access to tax administration only. The **Application Administrator** needs to do the following:

- Remove all roles from ST05 except **IEFINBaseSystemAndDataAccess_ST** and **Requester_ST**
- Copy role **PayablesAdministrator_ST** to create a new role **PayablesTaxAdministrator_ABC**
- Remove delivered security classes that are not needed
- Copy a security class **TXSetupAdmin_ST** to create a new security class **TXSetupAdmin_ABC** and add new rules
- Assign the role **PayablesTaxAdministrator_ABC** to an actor



Exercise 10.1: Modify a security class to remove access to actions

In this exercise, you will establish payables tax admin access only.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: Access the Payables Administrator role

1. Double-click the **Infor Ming.le** icon on the **Desktop**. The **Infor OS** window opens.
2. Type *st05@gdeinfor2.com* in the **someone@example.com** field.
3. Type *Tr@in123* in the **Password** field.
4. Click **Sign In**. The **Welcome to Infor Ming.le™** window opens.
5. Select **App Menu > Infor CloudSuite Financials & Supply Management**. The desktop for **Tony Cleveland** displays.
6. Select **Payables Administrator** from the **Application Switcher**.

Note: ST05 has access to all roles that are delivered. You want to remove access to all roles except for the **Payables Administrator** role. You also want to restrict access to just **Tax Setup** in the **Payables Administrator** role. You want to remove access to **Setup** and **Utilities**.

7. Close the **Chrome** browser to return the **Desktop**.

Part 2: Copy a role to create a new role

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management**.
2. Select **Security Administration** from the **Application Switcher**.

3. Select **User Management > Actor**.
4. Click the **Search** icon to enable search fields.
5. Type *ST05* in the **Actor ID** field.
6. Press **Enter**. **ST05** displays.
7. Double-click **ST05**. The **Actor** form opens.
8. Click the **Roles** tab. A list of roles displays.
Note: In the next steps, you will delete all the roles in the list except the **IEFINBaseSystemAndDataAccess_ST** and **Requester_ST** role.
9. Press **Shift**.
10. Select the last role you can see in the list. A list of roles is highlighted.
11. Click the **Delete** icon. A **Confirmation Required** dialog box opens.
12. Click **Yes**.
13. Repeat these steps until you have only two roles listed for the actor record, **IEFINBaseSystemAndDataAccess_ST** and **Requester_ST**.

The screenshot shows the 'Actor' form with the following fields:

- Actor:** ST05
- Presentation Name:** Cleveland, Tony
- Ming.le Id:** GDEINFOR2\ST05

Below the fields is a tabbed interface with the following tabs: Detail, Account, Contact, Identities, **Roles** (selected), and Configurable Fe.

The 'Actor Role List' table is displayed below the tabs:

<input type="checkbox"/>	Role
<input type="checkbox"/>	IEFINBaseSystemAndDataAccess_ST
<input type="checkbox"/>	Requester_ST

14. Select **User Management > Role**.
15. Click **Search**.
16. Type *PayablesAdministrator_ST* in the **Role Name** field.
17. Press **Enter**. The record displays in the list.
18. Right-click the **PayablesAdministrator_ST** record.
19. Select **Copy**. The **Copy** window opens.
20. Type *PayablesTaxAdministrator_ABC* in the **New Role** field.
21. Select **Submit**. The new role is created in the system.

Part 3: Remove security classes that are not needed

1. Search for **PayablesTaxAdministrator_ABC**. **PayablesTaxAdministrator_ABC** displays.
2. Double-click **PayablesTaxAdministrator_ABC**. The **Role** form opens.
3. Click the **Security Classes Assigned To Role** tab. A list of security classes displays.

4. Click the **check box** to select all security classes associated with this Role.
5. **Right-click** and select **Delete**. A **Confirmation Required** dialog box opens.
6. Click **Submit**.
7. Click **OK**. All security classes are removed.

Part 4: Copy a security class to create a new security class and add new rules

1. Select **Configurations > Create**.
2. Select **Copy Security Class**.
3. Type *TXSetupAdmin_ST* in the **Copied From** field.
4. Type *TXSetupAdmin_ABC* in the **Name** field.
5. Click **Submit**. The Security Class LPL displays.
6. Click **Edit**.
7. Place your cursor at the end of the line **Access Rights**.
8. Press **Enter**. A new line is created underneath Access Rights.
9. Press **Tab**.
10. Add rules to the Payables Administrator WebApp using the highlighted section of code:

```
TXSetupAdmin_ABC is a SecurityClass
description is "Setup of Tax"
Access Rights
    PayablesAdministrator WebApp
        is accessible
        |
        | for all actions
        | unconditionally
    TaxSetup MenuItem for PayablesAdministratorMenu Menu
        is accessible
        |
        | for all actions
        | unconditionally
    Utilities MenuItem for PayablesAdministratorMenu Menu
        is not accessible
        |
        | for all actions
        | unconditionally
    Setup MenuItem for PayablesAdministratorMenu Menu
        is not accessible
        |
        | for all actions
        | unconditionally
```

11. Click **Submit**.

Part 5: Assign the Security Class to a Role

1. Click **Manage Security Class**.
2. Click the **Roles** tab.

3. Click **Assign To Role**. The Role List select form opens.
4. Type *ABC* in the **Role Name** search box.
5. Press **Enter**. The role you previously created displays.
6. Select **PayablesTaxAdministrator_ABC**.
7. Press **Assign**. The security class is assigned to the role.
8. Click **Close**.

Part 6: Assign the Role to an Actor

1. Confirm there are no actors listed in the Actor Role List section of the page.
2. In the **Actor Role List** section, click **Create > Assign Existing Role To Actor**.
3. Type or select *ST05* in the **Actor** field.
4. Click **Save**.
5. Click **Back**.
6. Confirm *ST05* is assigned to the **PayablesTaxAdministrator_ABC** role and the **TXSetupAdmin_ABC** security class.

Part 7: Validate the configurations

1. Right-click the **Chrome** icon on the **Landmark 11 (Landing Server)** taskbar.
2. Select **New Incognito Window**.
3. Click the **Infor Ming.le** favorites shortcut.
4. Type *ST05@gdeinfor2.com* in the **someone@example.com** field.
5. Type *Tr@in123* in the **Password** field.
6. Click **Sign In**. The **Welcome to Infor Ming.le™** window opens.
7. Select **App Menu > Infor CloudSuite Financials & Supply Management**. The desktop for **Tony Cleveland** displays.
8. Select **Payables Administrator** from the **Application Switcher**.
9. Review the **Tax Setup** menu. **Setup** and **Utilities** are no longer accessible.
10. Select **Tax Setup**. A list of options displays.
11. Keep the **Chrome** browser open for the next exercise.



Scenario: Grant access to asset maintenance for the Payables Processor

The **Application Administrator** at ABC Company is required to create a **PayablesAndAssetsProcessor_ABC** role. This role grants access to asset maintenance. The **Application Administrator** needs to do the following:

- Copy **Payables Processor** role to create a new role
- Create a security class and write a rule granting all access to the **Asset** business class
- Create an application configuration to add the **Manage Assets** menu item to the **Payables Processor** menu
- Add the security class to the role and assign the role to the actor **ST05**
- Delete the **PayablesTaxAdministrator_ABC** role for **ST05**



Exercise 10.2: Modify a security class to have access to actions

In this exercise, you will grant access to asset maintenance for the Payables Processor.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

Part 1: View the menu bar for the Asset Manager role

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management**.
2. Select **Asset Manager** from the **Application Switcher**.
3. View the menu bar for the **Asset Manager** role.
4. Click **Manage Assets**. **Note:** There is a **Create** button in the **Manage Assets** pane.
5. Click **All Actions Menu (...)**. You have access to all actions that are available. You want to add **Manage Assets** to the menu bar for the **Payables Invoice Processor** role. **All Actions Menu** is located to the right of the **Create** button

Part 2: Copy a role to create a new role

1. Select **Security Administration** from the **Application Switcher**.
2. Select **User Management > Role**.
3. Type *PayablesProcessor_ST* in the **Role Name** field.
4. Press **Enter**.
5. Right-click **PayablesProcessor_ST**.

6. Select **Copy**. The **Copy** window opens.
7. Type *PayablesAndAssetsProcessor_ABC* in the **New Role** field.
8. Click **Submit**. The new role is created.
9. Type *ABC* in the **Role Name** search field.
10. Press **Enter**. The configured roles display.
11. Double-click **PayablesAndAssetsProcessor_ABC**. The **Role** form opens.
12. Click the **Security Classes Assigned To Role** tab.
13. Review the security classes that display.

Part 3: Create a security class and write a rule granting all access to the Asset business class

1. Select **Configurations > Create** in the **Navigation** page.
2. Select the **Create Security Class**.
3. Type *AssetAllAccess_ABC* in the **Security Class Name** field.
4. Type *All access to Assets for the Payables Processor* in the **Description** field.
5. Type the following highlighted LPL code in the LPL syntax window:

Security Class Name *

AssetAllAccess_ABC

Description

All access to Assets for the Payables Processor

☐ Inactive

LPL

```

Folding ▾ Commands ▾ 🔍
1 AccessAllAccess_ABC is a SecurityClass
2
3   Access Rights
4
5     Asset BusinessClass
6       is accessible
7       for all actions
8       unconditionally
  
```

6. Click **Save**. The security class is created.

Part 4: Add the security class to the role and assign the role to the actor

1. Use the left navigation pane to select **Configurations > Console**. A list of security configurations displays.
2. Confirm **AssetAccess_ABC** is selected.
3. Click **Manage Security Class**.
4. Select the **Roles** tab.

5. Click **Assign To Role**.
6. Search for **PayablesAndAssetsProcessor_ABC**.
7. Select **PayablesAndAssetsProcessor_ABC**.
8. Click **Assign**. The security class is assigned to the role.
9. Click **Close**. You return to the security class management page.
10. In the **Assigned Roles** section of the page, click the **PayablesAndAssetsProcess_ABC** role. The Actor Role List displays.
11. In the Actor Role List section, select **Assign Existing Role to Actor**.
12. Type or select **ST05**.
13. Click **Save**.
14. Click **Back**.

Part 5: Create an application configuration to add the Manage Assets menu item to the Payables Processor menu

1. Select **Configuration Console** from the **Application Switcher**.
2. Select **Configuration > Create**.
3. Select **Menu**.
4. Type or select *PayablesProcessorMenu* in the **Select Menu** field.
5. Press **Enter**. A list of options displays.
6. Select **PayablesProcessorMenu**.
7. Click **Submit**. The LPL for the menu displays.
8. Click **Edit**.
9. Scroll to the bottom of the LPL code.
10. Add a link to the Manage Assets page using this highlighted block of code:

```
Analysis
    menu is MatchAnalysisMenu
SampleDocumentTemplates
    list is SampleDocumentTemplate.SampleDocumentTemplatesForPayables
ManageAssets
    page is ManageAssets
```

11. Click **Submit**. The menu is updated.

Part 6: Validate the configurations

1. Right-click the **Chrome** icon on the **Landmark 11 (Landing Server)** taskbar.
2. Select **New Incognito Window**.
3. Click the **Infor Ming.le** favorites shortcut.
4. Type *ST05@gdeinfor2.com* in the **someone@example.com** field.

5. Type *Tr@in123* in the **Password** field.
6. Click **Sign In**. The **Welcome to Infor Ming.le™** window opens.
7. Select **App Menu > Infor CloudSuite Financials & Supply Management**. The desktop for **Tony Cleveland** displays.
8. Select **Payables Invoice Processor** from the **Application Switcher**.
9. Click **Manage Assets**. A **Create** button displays in the **Manage Assets** pane.
10. Click **All Actions Menu (...)** in the **Manage Assets** pane. You have access to all actions that are available.
11. Keep the **Chrome** browser open for the next exercise.

Security reporting

Use Security Administration to view or create security reports.

These security reports are described in the following table:

Security report	Description
User Security report	The User Security report shows all roles and security classes for the specified user in the current data area. The report can also be used to view details of each rule in LPL.
Securable Object Access Details report	Securable Object Access Details report shows the security policies that have been assigned to a specific securable object in a specific data area. This powerful report is a way to list all policies that a user has access to for a specific securable object. You can use it to determine if multiple rule assignments have been made to the same object or user causing the object or user to have unintended access.
Securable Object Policy report	The Securable Object Policy report shows the security policies that have been assigned to a specific securable object in a specific data area. This powerful report is a way to list all policies that a securable object or a user has access to.
Securable Object Prediction report	The Securable Object Predicate report shows actions that a specific user can execute on a specific securable object in a specific data area.
Securable Object Conditions report	The Securable Object Conditions report shows conditions for a which a specific user can execute Inquire actions on a specific object in a specific data area.

From the Options menu, these reports can be exported to a comma separated value (CSV) file or print to PDF.

Check your understanding



What are five ways that you can modify existing security classes?



1. _____
2. _____
3. _____
4. _____
5. _____



Lesson 11: Configuration Console administration

Estimated time

2 hours

Learning objectives

After completing this lesson, you will be able to describe the administrative tasks for managing the Configuration Console. In this lesson, you will:

- Discuss how updates are managed.
- Describe how Verify Configurations is used to verify configurations.
- Describe how to use Compare Against Base for updates and maintenance.
- Describe how to view configuration history.
- Describe how to use the Administration Console to manage configurations.
- Identify how the configuration data utilities are used.
- Identify tools for troubleshooting configuration issues.
- Discuss best practices for Configuration Console administration.

Topics

- Updates and maintenance
- Using the Administration Console
- Troubleshooting tools
- Best practices
- Check your understanding

Updates and maintenance

Infor has the potential to update MT code base monthly. The update changes are documented in the release information. KB# 1935818 contains the delta information for security and application. Customers are responsible for making sure their configurations will continue to work after the update of code. In addition, any new LPL code added into applications configured would need to be reviewed and merged by the customer.

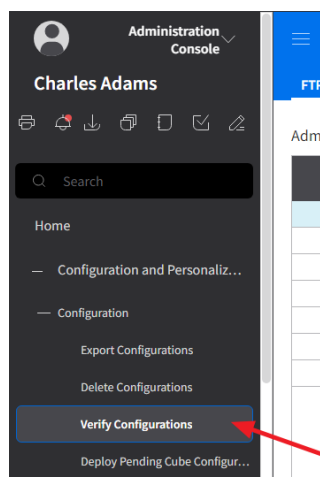
The Administration Console is used for the verification of code against the updated source. The Configuration Console can be used to review missing LPL from base to configuration. In addition, customers should know they can revert configurations to a previously saved version when needed. These items of Verify Configuration “cdverify”, Compare to Base and View History are reviewed in this section.

Using Verify Configurations

The Verify Configurations tool verifies the syntax of your configurations using your current Landmark and application version. This key utility is used to know your configurations are staying valid throughout updates. If no options other than data area are supplied, it will read through all active configurations and verify the syntax. If no type is specified, all applicable types will be included.

This verification can be useful after an upgrade and before users access the configurations to identify potential problems. It can also be used to identify potential problems in new configurations before a user attempts to access the configurations.

Access the Verify Configurations utility using **Administration Console > Configuration and Personalization > Configuration > Verify Configurations**.



Using Compare Against Base

Your configured LPL is not changed by an application upgrade. The Compare Against Base feature shows you a listing of the intersection of what you have configured with what recently changed in a specific, selected critical update (CU). This list will help you to quickly determine if your configuration is still right for you or if you need to merge in a new application feature into your configuration.

PurchaseOrderEntryMain

Active

Business Class

Type

PurchaseOrder

Form

Last changed July 6, 2022 3:31:09 PM EDT by IN01

Edit

Deactivate

Make Personalization

[View Business Class LPL](#)

[View Base UI LPL](#)

[Compare Against Base](#)

Current Application Version (left) vs Current Configuration (right)

Commands	
43	ShipToLocationName
44	no label
45	display as text
46	two column distributed
47	PurchaseOrderDate
48	DefaultDeliveryDate
49	label is "DeliveryDate"
50	two column distributed
51	Reference1
52	Reference2
43	ShipToLocationName
44	no label
45	display as text
46	two column distributed
47	PurchaseOrderDate
48+	constraint (PurchaseOrderDate >= current date)
49	DefaultDeliveryDate
50	label is "DeliveryDate"
51	two column distributed
52	Reference1
53+	required
54	Reference2
55+	two column distributed
56+	FreightTerm
57+	button of untranslatable:"OpenToReceive"
58+	link is OpenToReceiveLinesForPurchaseOrder
59+	display as link

Using Compare Against Base

You can compare your list, form, page, and menu configurations against the current LPL. If changes are detected, the system will show you the differences.

The following is a high-level overview of how to access and use Compare Against Base:

Step	Action
1.	Open Configuration Console > Configuration > Console
2.	Select the configuration in the list
3.	Select Compare Against Base . The current Infor delivered application code displays on the left, and your Current Configuration displays on the right.



Exercise 11.1 Using Compare Against Base

In this exercise, you will use Compare Against Base to compare one of your configurations.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

1. Confirm you are connected to **Infor CloudSuite Financials & Supply Management** in **Infor OS Portal/Ming.le**.
2. Select **Configuration Console** from the **Application Switcher**.
3. Select **Configuration > Console**. A list of your configurations displays.
4. Select **ManagePurchaseRequestList**.
5. Click **Compare Against Base**. The following displays:
 - **Current Configuration** displays in the right pane.
 - **Current Application Version** displays in the left pane.
6. Scroll through the right pane to view the differences between Infor delivered code and your configured code.
7. Keep the **Chrome** browser open for the next exercise.

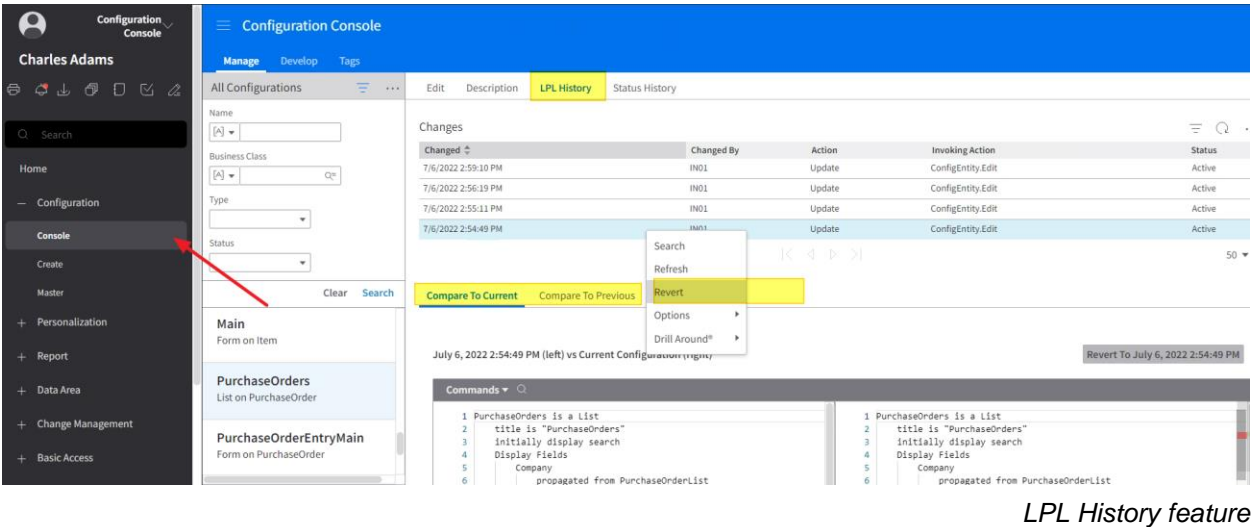
Viewing history

The Configuration Console uses an LPL History feature to allow you to view versions of your configurations. You can browse through version history by selecting the date from the list. You can compare versions by selecting the Compare to Current or Compare to Previous options. You can revert to an earlier version by selecting the version and then right-clicking to select the Revert option.

The following is a high-level overview of how to access and use LPL History:

Step	Action
1.	Open Configuration Console > Configuration > Console
2.	Select the configuration in the list
3.	Select the LPL History tab.

The following image is an example of the LPL History feature:



Using Configuration Console > Change Management

Change Management option is a tool that you use to manage your configurations, personalizations, reports and security classes for transfer to another location. Exporting from TST instance to the PRD instance of your system as an example. The Configuration Console > Change Management is accessed through the Landmark Web UI.

Change Management is used to perform the following functions:

- Tag items to be grouped together for export
- Bundles the Tags together for export
- Create a Snapshot of the Bundle for export (Package)
- Export the Snapshot to FTP location from Source
- Import the Snapshot from FTP location into Target
- Validate the imported Snapshot before applying
- Applying the configurations, personalizations, reports and security classes to the Target

Managing your developed objects

As the system is used by users and administrators, objects are created such as configurations, personalizations, reports and security classes. These objects will be maintained within the data area of the system for which they are created.

There is a challenge then to maintain these objects across the instances of Landmark. It's not always a straight forward scenario like from TST to PRD.

1) Exporting/Importing from a TST to PRD instances

You can use a TST instance to create configurations and then export those to the PRD instance. You must take care in this process to preserve the existing configurations. You never want to develop new configurations or security classes directly to Production. Therefore, after construction and thorough testing it's proper to move these items to ensure that no errors are made in replication to PRD. Rebuilding the objects are a risk.

2) Exporting/Importing from a PRD to TST or TRN instances

Users will typically build their personalizations and reports directly into PRD instance. You may be requested to move these items to a TST or TRN instance. It's the reverse of our typical development change migration path.

Tags

A way to group changes for project tracking and for use in bundles to export to other systems.

Bundle

A named definition that specifies one tag or several tags. Bundles are dynamic and reflect changes in the LPL as updates are made. They are not a fixed point in time version or copy of your configurations.

Snapshot

A full copy of the configurations as defined by the bundle definition at the point in time that the snapshot is created. Snapshots are static copies of the LPL and are locked for export or review only. If you change something in the system after a snapshot is created, it is not reflected unless you create a new snapshot.

Package

An exported snapshot.

Validation

An action to perform a deep parse of the staged imported package combined with the live configurations, simulating as if the imported package were live.

Apply

An action to copy the imported and validated snapshot items into the live runtime system.

Rollback

An action to revert the application of a package out of the simulated live runtime configurations that were performed in pre-validation. During validation, items that are about to be changed are backed up by the system. When the rollback action is performed, the system is reverted to the backup.



Exercise 11.2: Executing Change Management process

In this exercise, you will execute a Change Management process of tagging, bundling, creating snapshot, package via export, import, validate and apply. The exercise will apply over the top of the data area selected on your assigned server. Technically not exporting across instances but allows attendee to experience the process.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

1. Select **App Menu > GHR**. The desktop for **Charles Adams** displays.
2. Select **Configuration Console** from the **Application Switcher**.
3. Select **Change Management > Manage Changes**. The **Manage Changes** page opens.
4. Select All Action (...) **Create** on the **Tags** tab.
5. Type *ParkingLotProject* in the **Tag** field.
6. Type *Parking Lot Project tag* in the **Description** field.
7. Select the **Active** check box.
8. Select **Save**.
9. Select **Back** on browser. Notice the tag has been created.
10. Select **Configuration > Master**.
11. Select **ParkingLotLocation** Business Class.
12. Right click on a selected object **ParkingLotLocation** record.
13. Select **Tag item**.

14. Select **ParkingLotProject** in **Tag** field. Notice the Tag Known Related Configured Items is selected. This will cause the system to automatically tab objects related to this configuration.
15. Select **Submit**.
16. Select the remaining object of **LRCAdminMenu**, **EmpParkingLocation**, **LRCDetail**.
17. Right click on a selected object **LRCAdminMenu** record.
18. Select **Tag item**.
19. Select **ParkingLotProject** in **Tag** field.
20. Select **Submit**.
21. Select **Security Administration** from the **Application Switcher**.
22. Select **Configuration>Master**.
23. Verify the **UBC_ParkingLotLocation** is already tagged. This was done on the tagging of the Business Class with Known Related Configured Items.
24. Select **Configuration Console** from the **Application Switcher**.
25. Select **Change Management > Manage Changes**. The **Manage Changes** page opens.
26. Select the **Bundles** tab.
27. Select **Create**. The Create Bundle Definition form displays.
28. Type *ParkingLotProjectBundle* in **Name** field.
29. Select *ParkingLotProject* in **Tags** field. Only one tag will be included in this course example.
30. Type *Parking Lot Project Bundle* in the **Description** field.
31. Select **Save**.
32. Select **Back** on browser. Notice the bundle has been created.
33. Select **CreateSnapshot**.
34. Type *ParkingLotProjectSS* in **Snapshot Name** field.
35. Type *Parking Lot Project Snapshot* in **Description** field.
36. Select **Submit**. File field is left blank.
37. Select **Local Snapshot** tab.
38. Select **Export** on **ParkingLotProjectSS** snapshot.
39. Select **Submit**. The default zip name should be used and no subdirectory added for the GHR FTP server location output.
40. Select Windows File Explorer.
41. Navigate to **E:\LawsonFTP\Local\GHR** folder.
42. Verify the **ParkingLotProjectSS.zip** exists.
43. Close the **Windows File Explorer**.
44. Select the Imported Snapshots tab.
45. Select All Actions (...) Import.

46. Type **ParkingLotProjectSS.zip** in File Name field.
47. Select **Submit**.
48. Select the **Refresh** action. The ParkingLotProjectSS should now display. Notice the objects have not been validated.
49. Select the **Validate** action on the ParkingLotProjectSS snapshot.
50. Select **Submit**.
51. Verify all the object are now in **Passed** status.
52. Select **Apply**.
53. Select **OK** on message. This is occurring because we sourced the objects from the same data area being targeted for application.
54. Select the **Applied Snapshot** tab.
55. Review the objects that were updated and Rollback Details tab. If needed these applied object could be rolled back to the original backed up on the application action.

Using the Administration Console

The Administration Console is a tool that you use to manage the Configuration Console and Security Administration objects as well. The Administration Console is accessed through the Landmark Web UI.

The Administration Console is used to perform the following functions:

- Export configurations
- Verify configurations
- Delete configurations
- Export personalizations
- Delete personalizations
- Clear Cache
- Manage Cache
- Import configurations and personalizations

Exporting and importing configurations

The exporting and importing using this feature is less controlled. Exports of items done through utilities have limited filter features. Often the zip file created may contain objects not desired to be moved to the target. The zip file can have the objects removed but this can cause integrity problems if all the objects referenced are not removed. This is not recommended. The previous Change Management feature is recommended for moving objects from Source to Target. The exports can be used if complete object export and imports is desired.



Exercise 11.3: Export configurations using the Administration Console

In this exercise, you will verify and export configurations using the Administration Console. In addition, you will review the UI Configuration Cache Manager and Clear Configurations utility.

Notes:

- If you are taking this course as classroom or virtual instructor-led training, observe as your instructor first demonstrates this exercise.
- If you are taking this course as self-directed learning, complete the steps below.

Exercise steps

1. Select **App Menu > GHR**. The desktop for **Charles Adams** displays.
2. Select **Administration Console** from the **Application Switcher**.
3. Select **Configuration and Personalization > Configuration > Verify Configurations**. The **Verify Configurations** form opens.
4. Type *verify* in the **Subdirectory** field.
5. Select the **Include Warnings** and **Print Out Syntax Errors** check boxes in the **Options** section.
6. Click **Submit**. The **Run Command Submitted** message displays.
7. Select **Configuration and Personalization > Configuration > Export Configurations**. The **Configuration Data Export to FTP** form opens.

8. Type *export* in the **Subdirectory** field.
9. Type *configurations.zip* in the **File Name** field.
10. Click **Submit**. The **Run Command Submitted** message displays.
11. Select **Configuration and Personalization > UI Configuration Cache Manager**. The Configuration Cache Manager form displays.
12. Review the **Application Server** and **Grid** objects. This can be used to clear cache for specific object by select the object right clicking and choosing that action.
13. Select **Configuration and Personalization > Clear Configurations**. The Clear Caches form displays.
14. Type *clear* in the **Subdirectory** field.
15. Review the option to target just security cache clearance.
16. Select **Submit**. This will clear both the Security and Application Caches.
17. Open **File Explorer** in the taskbar.
18. Select **E:\LawsonFTP\Local\GHR**. Folders for **clear**, **export**, and **verify** display.
19. Open the **verify** folder.
20. Open the **CdVerifyOut.txt** file. The output data displays in **Notepad**. The hcm data area has been verified and there are errors that require attention.
21. Close the **CdVerifyOut.txt** file. You return to File Explorer.
22. Click **Back**.
23. Open the **export** folder.
24. Open the **CdExportOut.txt** file. The output data displays in **Notepad**.
25. Close the **CdExportOut.txt** file.
26. Open the **configurations.zip** file.
27. Open **<an output file of your choosing>**.
28. Click **Back**.
29. Open the **clear** folder.
30. Open the **ClearConfigurationsOut.txt** file. The output data displays in **Notepad**.
31. Close **File Explorer**.
32. Close the **Chrome** browser to return the desktop.

Configuration data utilities

On-premise customers use configuration data utilities at the command line. These utilities allow a user to copy security classes, import and export security class data, and import and export other configuration data. These utilities are described in the following table:

Utility	Description
sccopy - security class copy	The sccopy utility enables you to create a new security class by copying an existing one, or to modify an existing security class by overwriting it with another security class.
scexport - security class export	The scexport utility enables you to export the customized security classes for a data area to a zip file so that they can be imported to a different system.
scimport - security class import	The scimport utility enables you to import the security classes into a data area from a zip file created through scexport or delivered by Landmark.
scupdate - security class update	The scupdate utility enables you to update the security classes for a data area from the zip files containing the delivered framework and application data area security classes.
cdexport - cd export	The cdexport utility enables you to export configuration data for a Landmark system to either a directory or zip file. This data includes configuration data for applications, security authorization, MIME types, Infor Process Automation, and Web services. You can choose to export all configuration data or just selected types of data. You can also choose to export configuration data for specific actors or for the "global" actor.
cdimport - cd import	The cdimport utility enables you to import configuration data for a Landmark system from either a directory created through cdexport or a zip file created through either cdexport or the Configuration Console Export option. This data includes configuration data for applications, security authorization, Infor Process Automation, and Web services. You can choose to import all configuration data or just selected types of data. You can also choose to import configuration data for specific actors or for the "global" actor.
cddelete – cd delete	The cddelete utility enables you to delete various types of configuration data (such as the data for global user interface changes).



These utilities can also be run from the Command Prompt.

Troubleshooting tools

You have a choice of tools to help you identify configuration issues. These are in addition to any error messages that you may see as you are working in the Configuration Console on a configuration. These tools can help you identify invalid configurations, locate specific errors within configurations, and compare different versions of a configuration to better understand what may be causing a problem.

Configuration Console

The Configuration Console itself includes tools for comparing configurations, locating invalid syntax, and identifying invalid configurations.

Verify configurations using Verify Configurations

The Verify Configurations utility can be used to quickly list invalid configurations and show any syntax errors in configurations.

Configuration business class forms

Using Configuration Console, you can view a list of configurations, identify invalid configurations, and compare any two versions of the configuration, and search on a status value of Invalid.

Disable user interface configurations for a session

There are times where it is helpful to be able to look at the base product without customization for testing and verification. Rather than having to inactivate configurations in Configuration Console, you can disable the user interface configurations for a session.

When you use the disable user interface configurations context session key, only user interface configurations are disabled, i.e., page, menu, form, and list. All other configurations remain active, because it will be too disruptive to processing and possibly corrupt data.

Infor recommends you use this feature only when you are troubleshooting a Landmark issue. Use caution when using the disable user interface configurations feature, particularly in a production environment. Disabling the user interface configurations could potentially cause issues. For example, if you have added fields using Configuration Console and they are no longer there, processing the form could cause missing data in your system.



Configuration Console for the web

Please see this guide for more information on troubleshooting.

Best practices

You should use Change Management to ensure that you have all your production configurations and personalizations (optional) are duplicated in a test environment prior to taking a critical update On Premise or MT, PRD, TST, and TRN instances receiving the code at the same time.

After taking update, you should run the Verify Configurations command from the Administration Console and review the results. If there are any impacted configurations, you should resolve them (or invalidate them) until the Verify Configurations comes back clean.

There are several other best practices to follow for Configuration Console administration.

Testing configurations

When you create configurations in the Configuration Console, it is best to execute a test scenario before making the configurations available to all users. If you make the configuration changes directly to a production instance, the changes will be applied as soon as you save them in the Configuration Console.

The two ways to test the changes before committing them to all users are described in the following table:

Ways to test changes	Description
My Personalizations	My Personalizations allows a user to make most of the same changes as an administrator who uses the Configuration Console. However, those changes are available only to the user who made them. Thus, you can review the changes and then use the Make Global feature in My Personalizations to make the configuration available to all users. The configuration will then be listed in the Configuration Console where you can modify it further.
Test /TST instance	If you use a TST instance, you can fully develop the configuration changes you want and then move them to the production environment by using the configuration export and import utilities.

Editing LPL

It can be useful to view the LPL in the Configuration Console to better understand possible configuration changes. For example, you might want to view the LPL for your configuration and then compare that to the delivered LPL.

The LPL is exposed through the Edit and View Base LPL link. If you View LPL within the Configuration Console, you can press Ctrl+F to open a search box at the bottom of the LPL pane so that you can search through the LPL text.

Documenting configurations

You should document all your configurations. This ensures that you have a record of what, why and how you changed it or added the object. This is one of the most important “Best Practices”. You can use the

description field on the configuration to capture Design Document references and general information about the configuration. In addition, you can add a limited commented out code line in LPL with `//` starting line syntax. Using comments sparingly inside the code but may be needed to explain a pattern of LPL used.



Check your understanding



What are best practices for Configuration Console administration?





Course summary

Estimated time

.5 hour

Learning objectives

Now that you have completed this course, you should be able to:

- Describe the Configuration Console.
- Describe how to navigate the Configuration Console.
- Describe how to configure application objects and settings.
- Describe how to make application user interface configurations.
- Describe how to make application business logic configurations.
- Describe how to configure the data area.
- Describe how to use the My Personalizations Console.
- Describe how to create and manage Landmark application reports.
- Describe Landmark Security.
- Describe how to configure security classes.
- Describe the administrative tasks for managing the Configuration Console.

Topics

- Course review

Course review



Which one of the following options supersedes any configuration changes made in the Configuration Console?

- a) Personalizations
- b) Configurations
- c) Data area configuration
- d) Business class configurations



Which one of the following options contain the basic definition of what data is in an application, how it is organized, and how it is processed?

- a) MIME types
- b) Data areas
- c) Security classes
- d) Business classes



Which one of the following options allows you to change the attributes on layouts of a form, list, page, and menu?

- a) Business rules
- b) Ctrl + Shift + click functionality
- c) WYSIWYG interface
- d) Business logic



What configuration improves usability for simple data entry so that the user can create a record directly within a list?

- a) Inline create
- b) Horizontal scroll
- c) User-defined actions
- d) Pinnable actions



Which one of the following actions allow you to override some action settings, such as whether an effective date is required?

- a) User action request
- b) User-defined actions
- c) Restricted actions
- d) Action Configurations



Where does a user add a business subject in the Configuration Console?

- a) Configured Business Classes
- b) DataArea
- c) WYSIWYG interface
- d) Configured Pages



Which one of the following options is a specific access right to the system?

- a) Business rule
- b) Business logic
- c) Security class
- d) Security rule



Which one of the following options is a feature in the Configuration Console that allows you to view list, form, page, and menu configurations against the current LPL?

- a) Compare Against Base
- b) Verify Configurations utility
- c) View History
- d) Administration Console



Which one of following security roles is required to perform application configurations?

- a) ConfigurationAccess_ST
- b) AllAccess_ST
- c) ConfigAccess_ST
- d) SecurityAdministrator_ST



Appendices

The following are included in this section:

- Appendix A: User accounts

Appendix A: User accounts

Landmark Technology: Designing and Administering Configuration Console-11_0121100_IEN1737_S3O			
Training Environment entry point (VM)	ID	User	Password
Landmark 11 Landing Server for 1/student	All	landmark11\lawson	Tr@in123
Application	ID	User name	Password
Instructor login (for course demos):			
Infor Rich Client	IN01	IN01@gdeinfor2.com	Tr@in123
Infor OS\Infor Ming.le	IN01	IN01@gdeinfor2.com	Tr@in123
Infor Spreadsheet Designer	IN01	IN01@gdeinfor2.com	Tr@in123
MailEnable-Webmail	IN01	user00@edu.com	Tr@in123
Student logins (for course exercises):			
Infor Rich Client	IN01	IN01@gdeinfor2.com	Tr@in123
Infor OS\Infor Ming.le	IN01	IN01@gdeinfor2.com	Tr@in123
Infor Spreadsheet Designer	IN01	IN01@gdeinfor2.com	Tr@in123
MailEnable-Webmail	IN01	user00@edu.com	Tr@in123

Account details:

MailEnable Webmail: <http://landmark11.gdeinfor2.com:8080/Mondo/lang/sys/login.aspx>. (shortcut on the desktop)

Note: For further Information on MailEnable e-mail functionality please read the README doc found in My Documents folder.

“Spaces” are apps in Mingle Xi:

- Employee
- Manager
- Recruiter
- Compensation Analyst
- Benefits Analyst
- Absence Administrator
- Administrator
- Health and Safety Administrator

- Health and Safety Facility Manager
- Position Budget Manager
- Time Administrator

The following apps are sub-categories of the apps above, thus do not get their own icon:

- Talent Acquisition (under Administrator)
- Development (under Employee)
- Succession (under Administrator)
- Compensation (under Administrator)
- Goals (under Administrator)
- Performance (under Administrator)