



Entity Modeling for Process Platform 16

Introduction

Process Suite Training Courses

For Business Analysts & Developers

- 2-4912 Entity Modeling for Process Platform 16 (2 days)
- 4-4913 Process Modeling for Process Platform 16 (3 days)

For Developers

- 4-4905 Process Platform Fundamentals 10.x (5 days)

For Systems Administrators

- 3-4903 Process Platform Administration 10.x (4 days)

Course Catalog:

<http://www.opentext.com/what-we-do/services/training-and-learning-services/course-catalogue>

Class Logistics



Introductions



- Name
- Organization
- Job title / Description
- Background
- Experience with BPM tools
- Current / Planned Projects
- Specific Objectives / Expectations

Agenda - Day 1 of 2

Section
1. Introduction
OpenText / Process Suite - Overview
Process Platform Overview
2. Entity Modeling Overview
3. Entity Properties
Entity Relationships
4. Process Experience and Lists
5. User Interfaces: Forms

Agenda - Day 2 of 2

Section
5. User Interfaces: Layouts
6. Rules
Security
7. Lifecycle
8. Integration and Advanced Features

Chapter 1 - OpenText / Process Suite - Overview

Chapter 1 - Topics

- About OpenText
- OpenText Process Suite
- OpenText Process Suite Community
- Process Platform User Start Page

- Chapter 1 - Exercises

OpenText

\$1.9B

Global Revenue

100M

Users

18B

Transactions Managed
Annually

600K

Trading Partners

#1

In ECM

90%

Fortune 500

37

Data Centers

100K

Customers

120

Global Offices

8200

Employees

OpenText is one of the most successful software companies in the world. We're a leader in Enterprise Information Management, helping companies manage information for improved productivity, competitiveness and customer experiences

NASDAQ: OTEX, TSX: OTC

OPENTEXT™

OPENTEXT

A Better Way to Work

SUITE
16



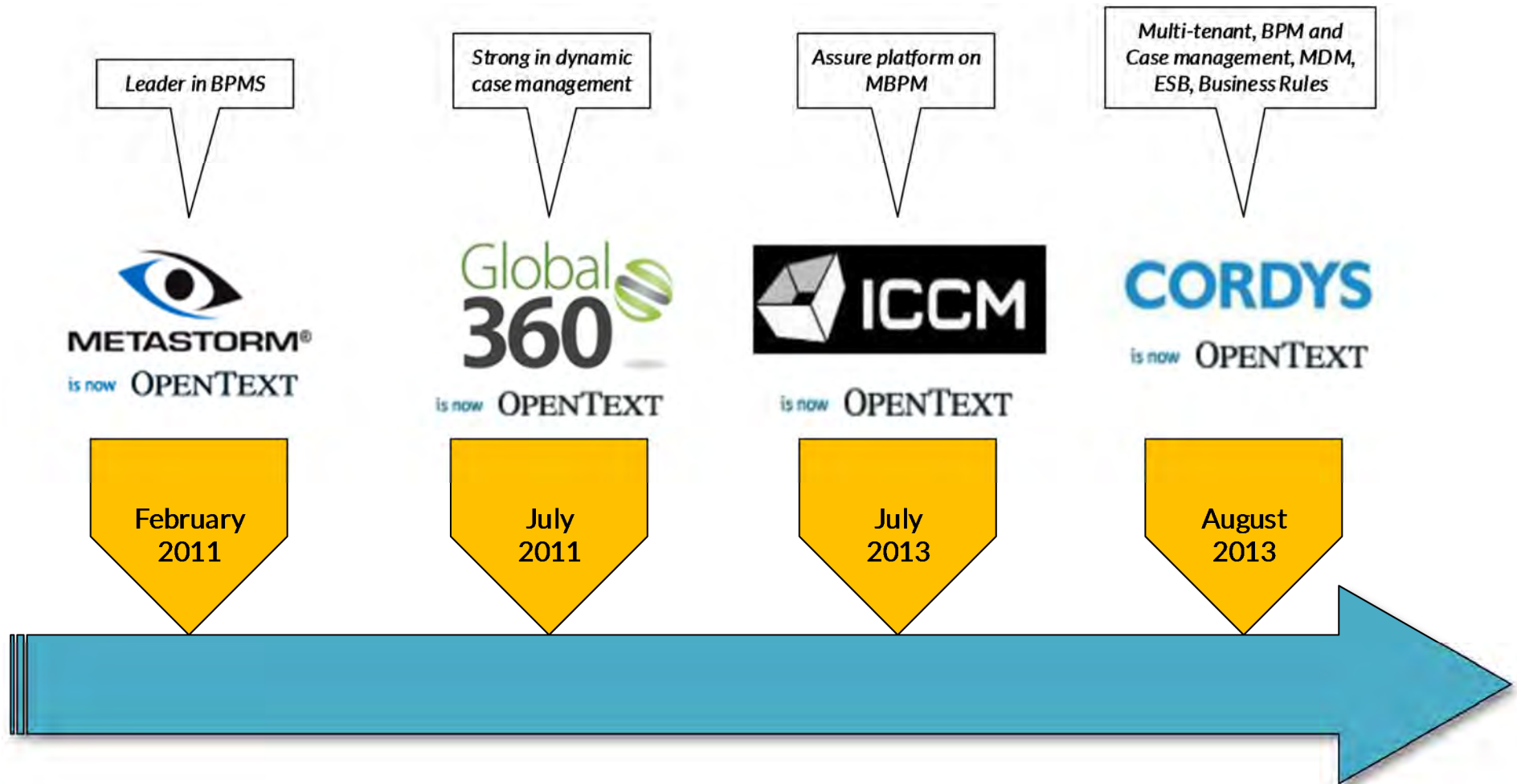
CLOUD
16



Flexible Deployment Options



History of OpenText BPM



Chapter 1 - Topics

- About OpenText
 - **OpenText Process Suite**
 - OpenText Process Suite Community
 - Process Platform User Start Page
-
- Chapter 1 - Exercises

OpenText Process Suite 16 Components

Base



- Process Platform
 - Entity Models
 - Process Models
 - User Interfaces
 - Web Services
 - SOA Integration
 - Process Experience
- Process Intelligence with iHub
- OpenText Directory Services (OTDS)

Applications



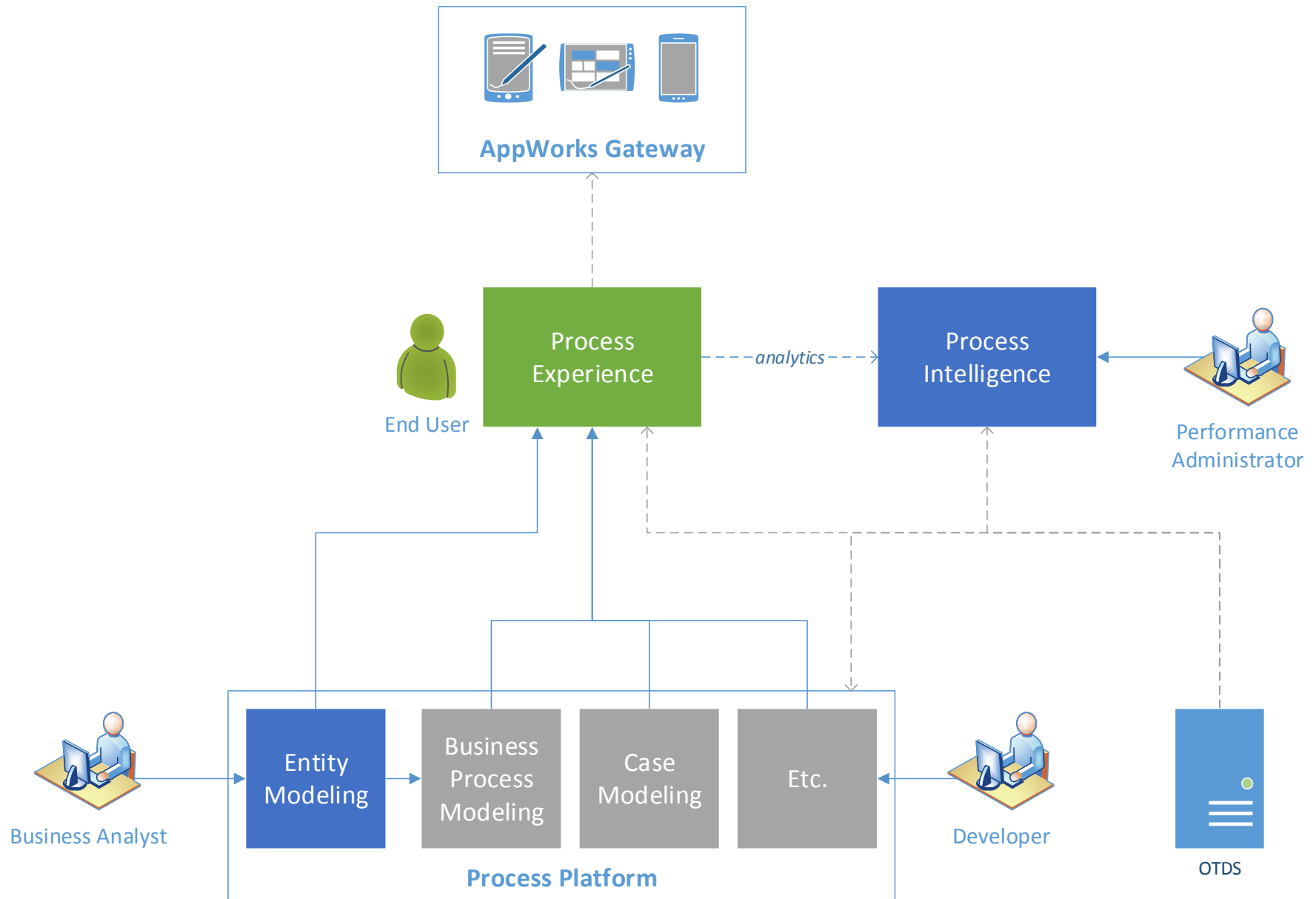
- Cloud Service Brokerage
- Contract Center
- RFx Center

Add-ons



- Media Management
- Content Server
- Archive Center
- Capture Center
- ProVision
- AppWorks Gateway

Relationship of Platform Components



Process Suite Differentiators



Flexible development

- Packaged applications
- Component libraries
- Model-driven development
- Code-level development



Broadest set of EIM services

- Enterprise Content Management, Records Management
- Info Governance Customer Experience Management
- Information Exchange
- Information Discovery



More deployment options

- SaaS
- PaaS
- On-Premises
- Hybrid



Fast time-to-value and agility

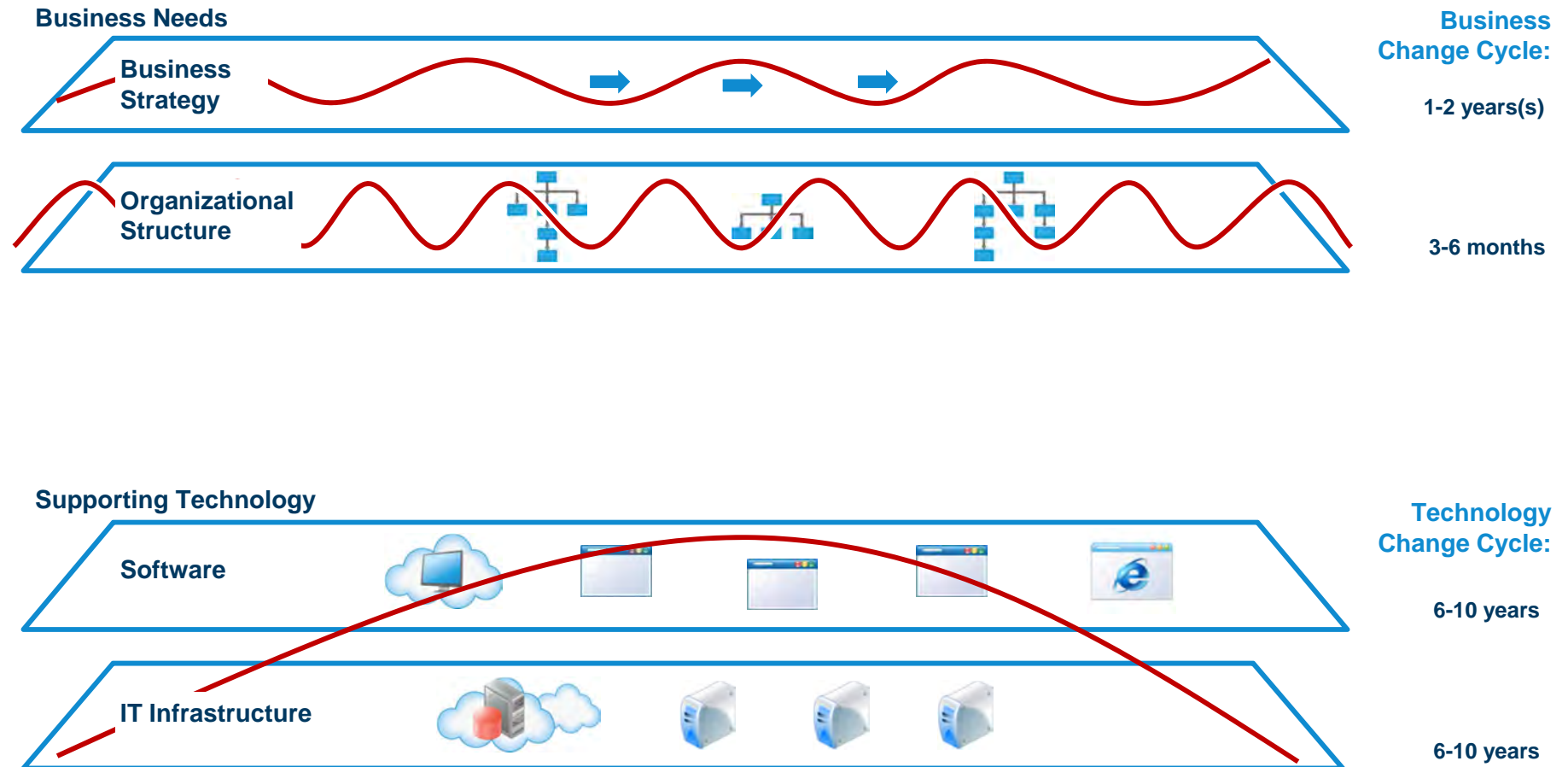
- Pre-built Service components
- Web service creation and reuse
- Pre-configured integrations and User Interfaces

Process Suite Business Drivers

- Frequent and fast changes in regulations
- Combined product offerings
- Need for an integrated client view
- Need to establish effective 'straight-through processing'
- Implementing lean process principles, eliminating waste

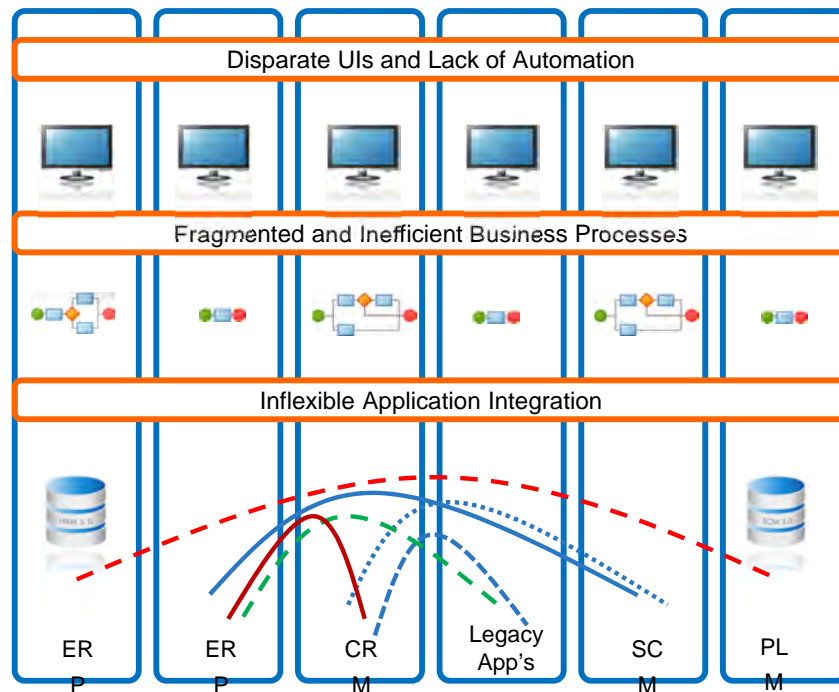


Accelerate Time to Value

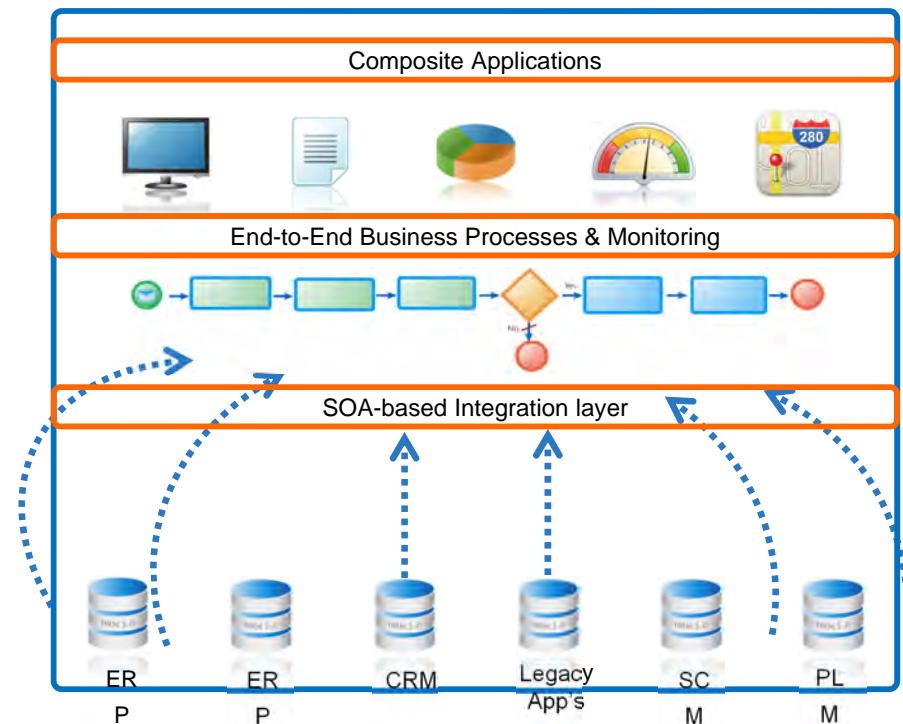


The Old and the New Way

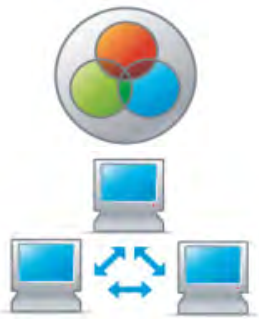
- The Old Way: Application Silos



- The New Way: OpenText Process Platform



Key Features of Process Platform



- A single platform, combining the world of Integration, Business Process Management, and Composite Application Development
- Enables true business and IT collaboration via a single Collaborative Workspace
- Support for any type of workflow including human-to-human workflows, system-to-system integration-type interactions and hybrid processes
- Designed to support multi-tenancy and cloud deployment
- Modern, open platform, built on highly available, scalable architecture



Chapter 1 - Topics

- About OpenText
 - OpenText Process Suite
 - **OpenText Process Suite Community**
 - Process Platform User Start Page
-
- Chapter 1 - Exercises

OpenText Process Suite Developer Community

- Online Community

- Knowledge sharing and exchanging of ideas, documentation and best practices
- OpenText employees, partners and customers

www.opentext.com/community > Technical Communities > Process Suite Developer Community

- Content

- Product Downloads
- Product Knowledge, Blogs & Forums
- Product Documentation
- Customer Support
- How To's
- Demos
- Implementation Methodology

Process Suite Developer Community - Landing Page

The screenshot shows the OpenText Process Suite Developer Community landing page. At the top is a dark blue header with the OpenText logo and a navigation menu. Below the header is a light blue banner with a 'Sign Out' link. The main content area has a breadcrumb trail 'Community > Process Suite Developer Community' and a title 'Process Suite Developer Community'. On the left is a sidebar with 'Tasks' and 'Forums' sections. The 'Tasks' section includes links for Documentation, Training & Certification, Get Support, Download, Expert Spaces, and Information. The 'Forums' section includes links for Training & Certification, Expert, and Information. The main content area is titled 'Recently Updated' and features a dropdown menu set to 'All Spaces'. It displays a list of recent updates, each with a user profile picture, name, and a link to the update, along with the time since it was updated.

OPENTEXT™

WHAT WE DO WHO WE ARE VIDEOS CUSTOMER STORIES **COMMUNITY** SUPPORT EVENTS AND WEB

Sign Out

Community > Process Suite Developer Community

Process Suite Developer Community

Tasks





- Documentation
- Training & Certification
- Get Support
- Download
- Expert Spaces
- Information

Forums

- Training & Certification
- Expert
- Information

Recently Updated

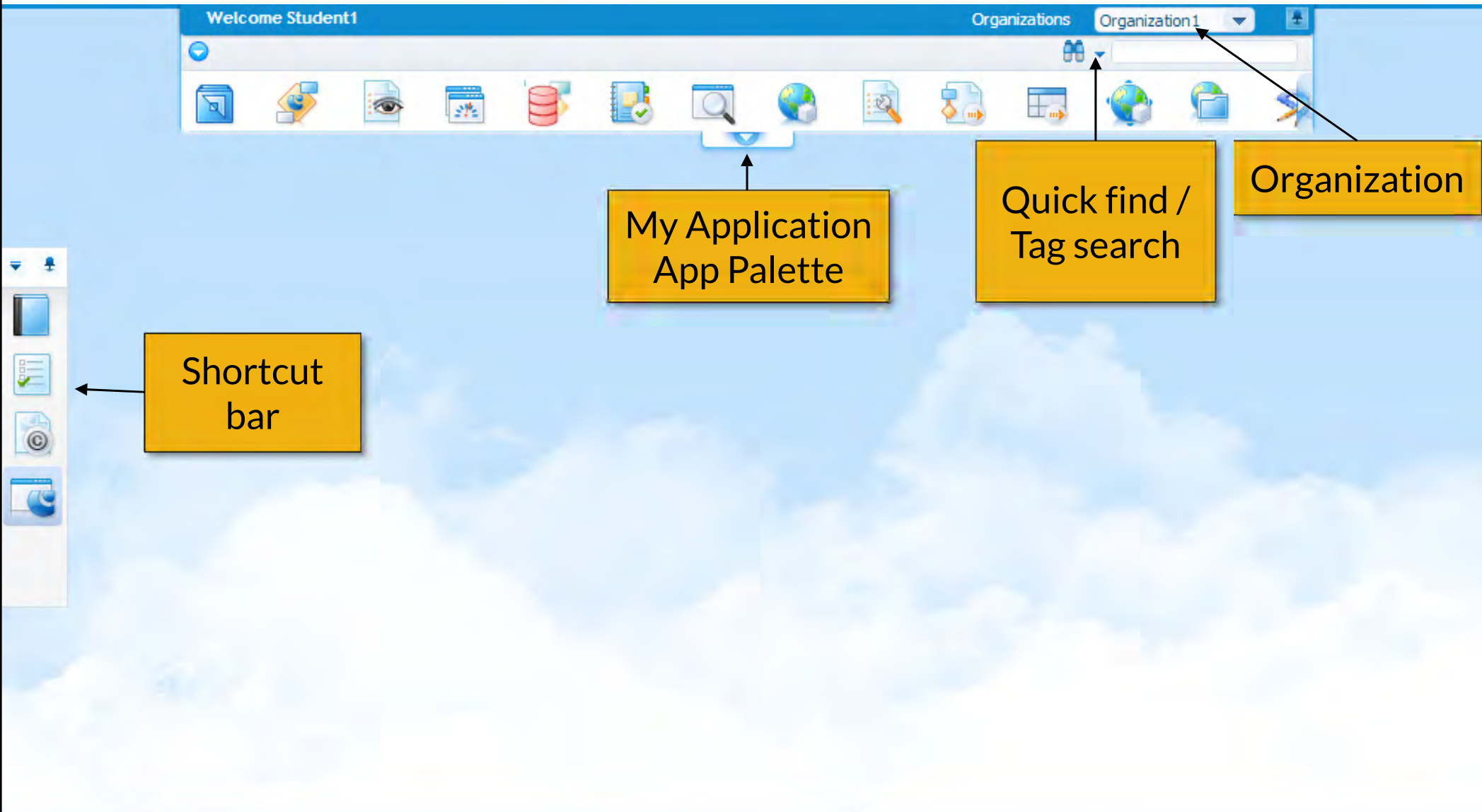
All Spaces ▼

-  **Bert Roos**
[Security on Actions](#) commented 4 minutes ago
-  **John Pratt**
[Trunk branch lock status](#) updated 17 minutes ago
(view change)
-  **James Meen**
[Open Standard - Topology and Orchestration Specification for Cloud Applications \(TOSCA\)](#)
created 32 minutes ago
-  **Gerrit van den Top**

Chapter 1 - Topics

- About OpenText
- OpenText Process Suite
- OpenText Process Suite Community
- **Process Platform User Start Page**
- Chapter 1 - Exercises

Process Platform - User Start Page (CUSP*)



*CUSP: Cordys User Start Page

User Start Page (CUSP) cont'd

The screenshot displays the User Start Page (CUSP) interface. At the top, a blue header bar contains the text "Welcome Student1" and "Organizations Organization1". Below the header, a grid of application icons is visible, including "New Document", "Process Archival Manager", "Process Instance Manager", "Product Details", "Publish Services", "Restore Process Instances", "Rule Test Tool", "SOAP Debugger", "Schedule Manager", "Security Administration", "Service Test Tool", "Synchronize Service Containers", "System Resource Manager", "Test Web Gateway", "UDDI Registry Manager", "User Manager", "Web Gateway Monitor", "Web Service Interface Explorer", "Web Task Manager", "Workspace Documents", and "XMLStore Explorer". A yellow callout box labeled "Artifact (User Manager)" points to the "User Manager" icon. Another yellow callout box labeled "App Palette view options" points to a dropdown menu with options "Roller" and "Scrollbar". A yellow callout box labeled "Recently used apps" points to a section of the interface. A yellow callout box labeled "My Application App Palette (opened)" points to a section of the interface. A yellow callout box labeled "Launched Application" points to a table of applications. A yellow callout box labeled "Task bar" points to the bottom of the interface.

Artifact (User Manager)

App Palette view options

Recently used apps

My Application App Palette (opened)

Launched Application

App-Type	Organization	Status	Process-ID	SOAP-Messages	Processing-Time	Last-Time	VirtualMemory-K
BAM	cordysserver Manual	Organization1					
Cordys Services	cordysserver Automatic	Organization1	started 4885	0	0	0	725184
External Services	cordysserver Manual	Organization1					
HRM Utilities	cordysserver Manual	Organization1					
Northwind	cordysserver Automatic	Organization1	started 5232	0	0	0	743624
Auditing	cordysserver Manual	system					
Business Activity Monitor	cordysserver Automatic	system	started 4475	0	0	0	792584
Business Process Management	cordysserver Automatic	system	started 4475	0	0	0	990272

Task bar

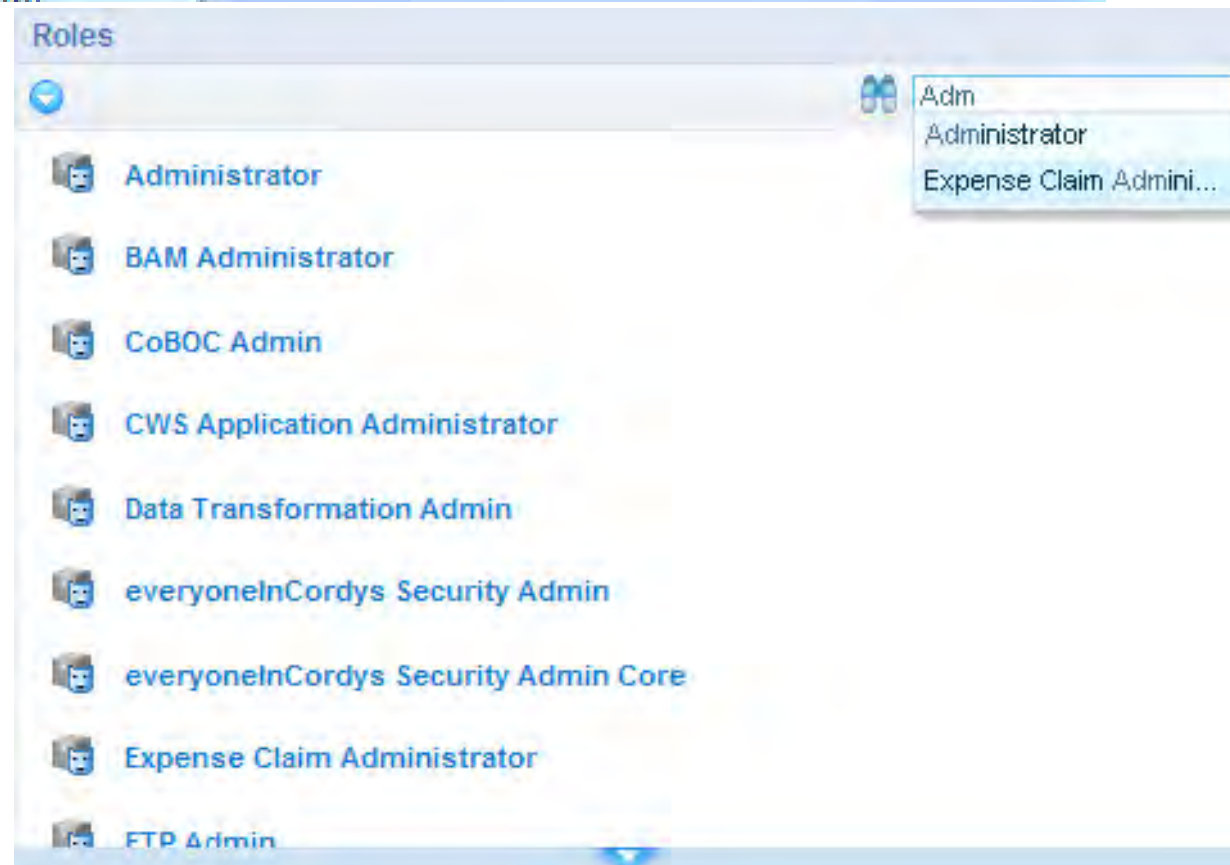
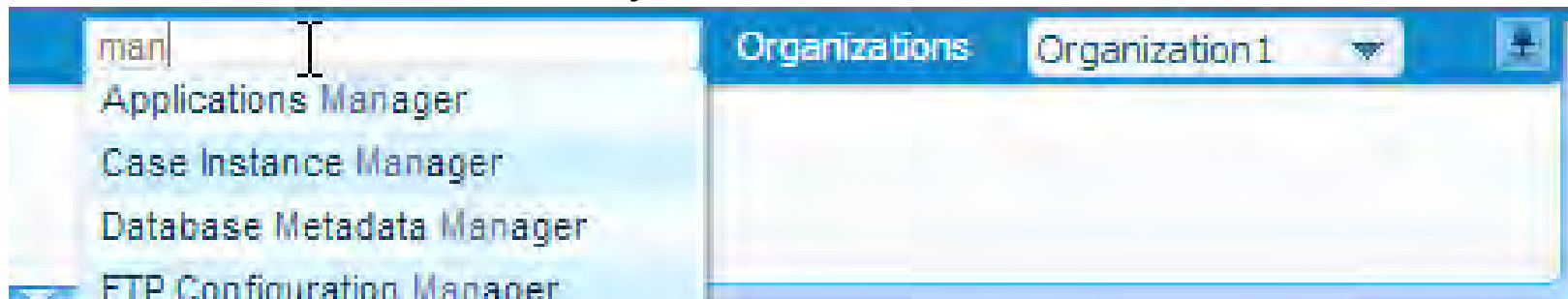
Views and Sorting

- View
 - Icon
 - Tiles
 - List
 - Detail
- Arrange by
 - Name
 - Ascending
 - Descending
- Scroll By
 - Roller
 - Scrollbar

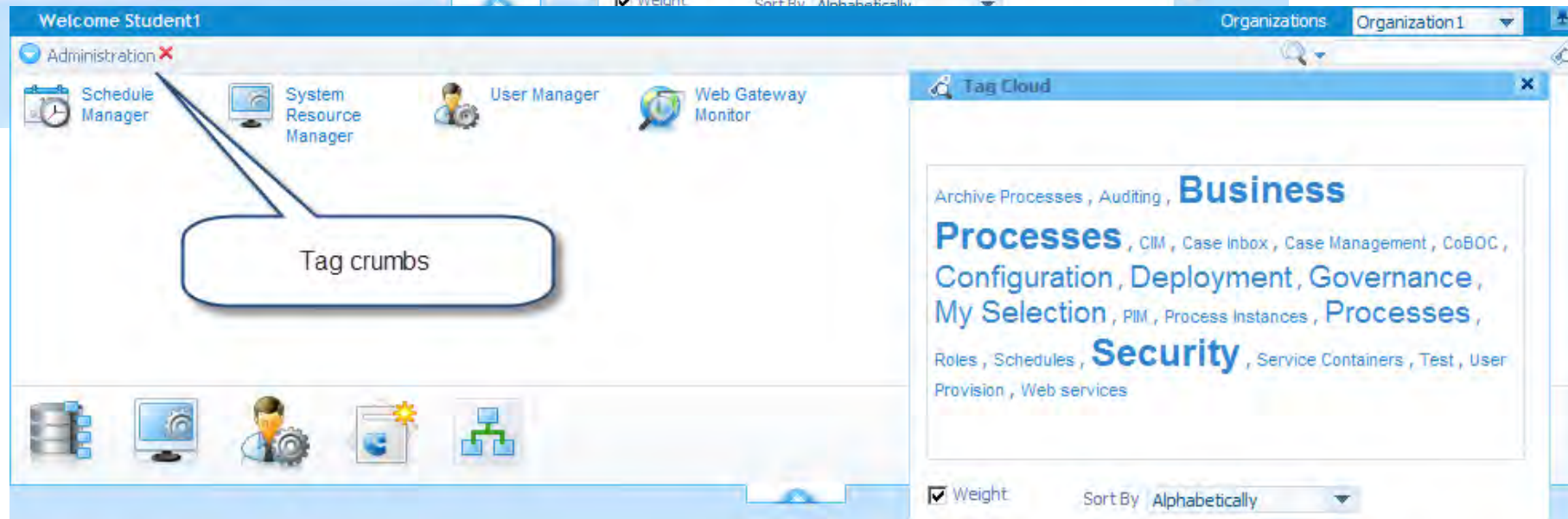
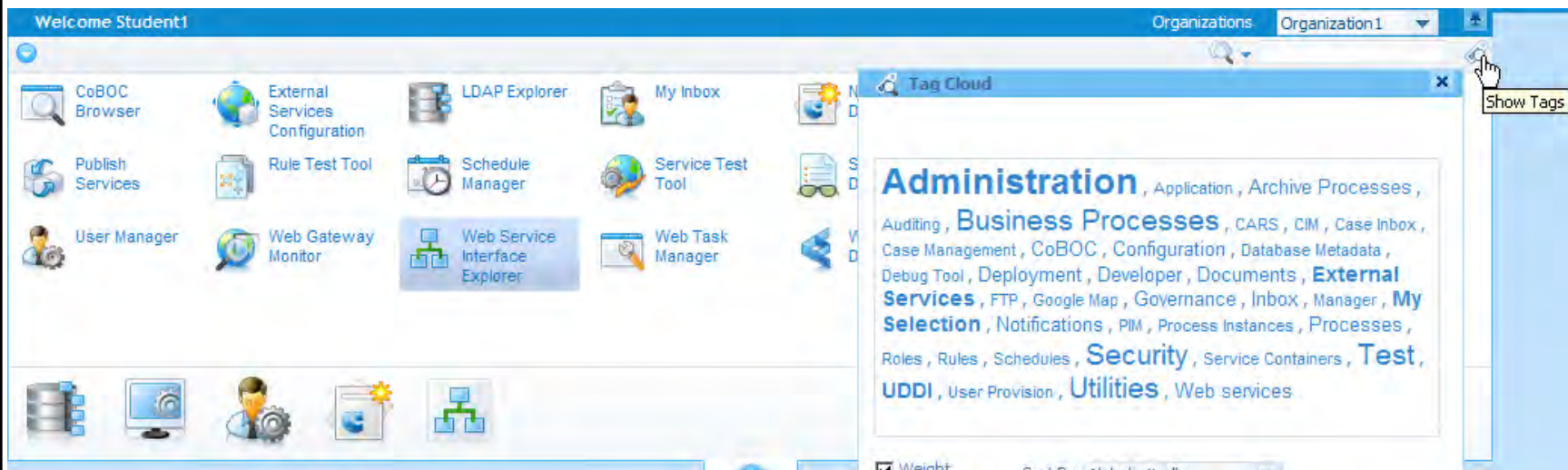


Searching

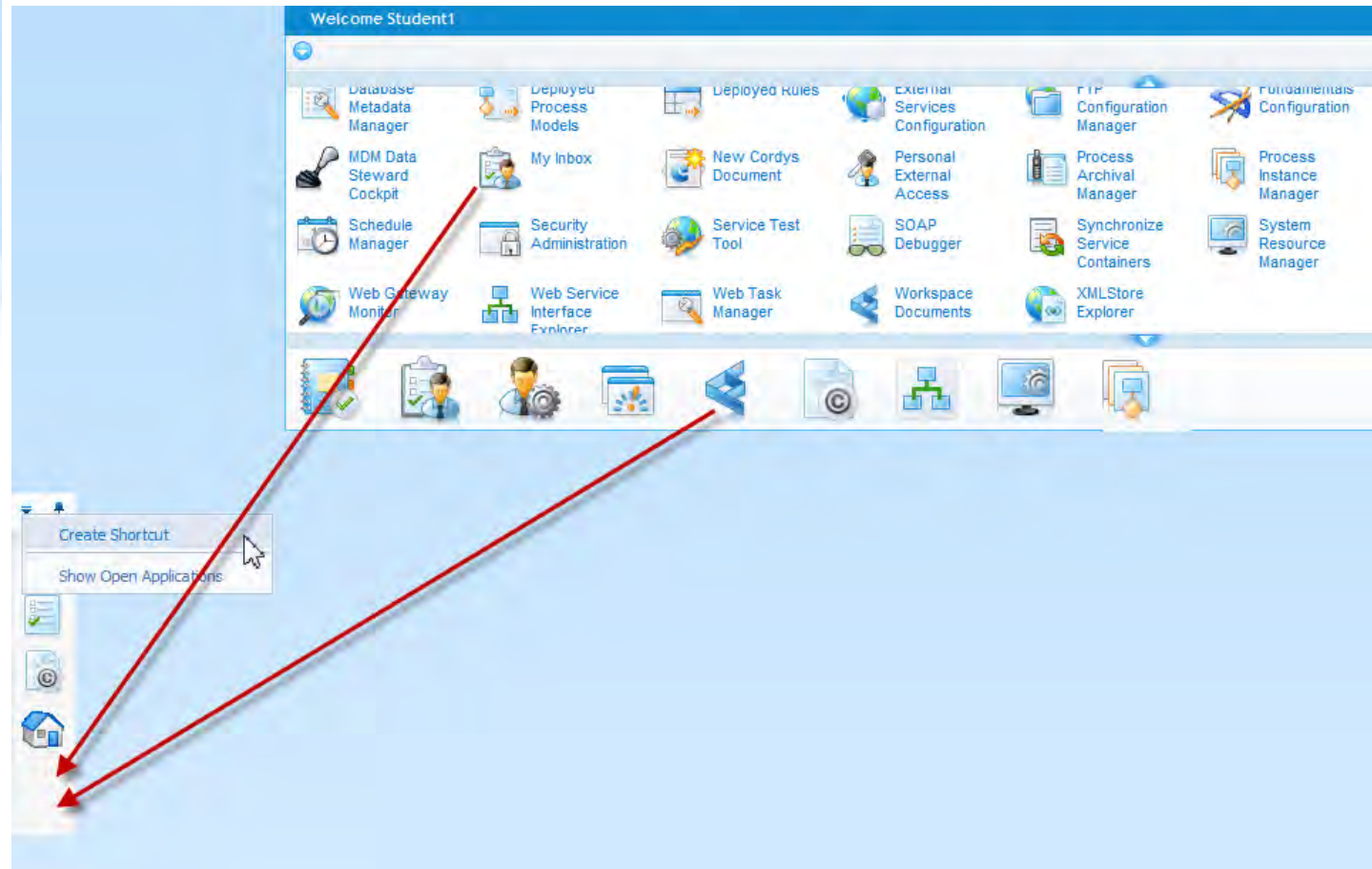
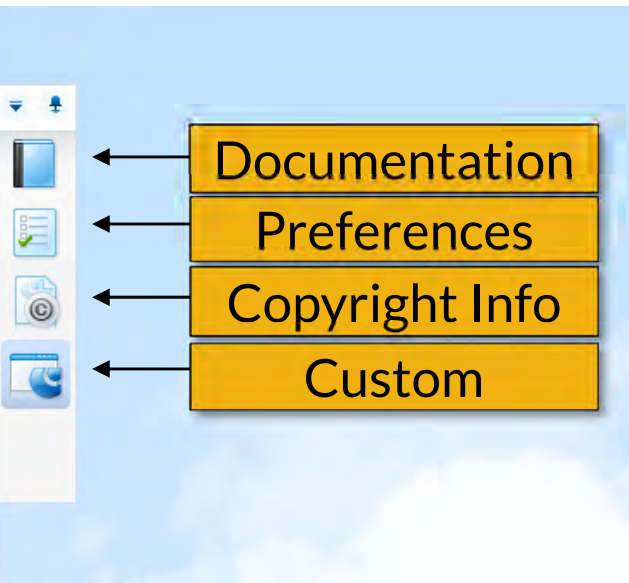
- Search boxes everywhere:



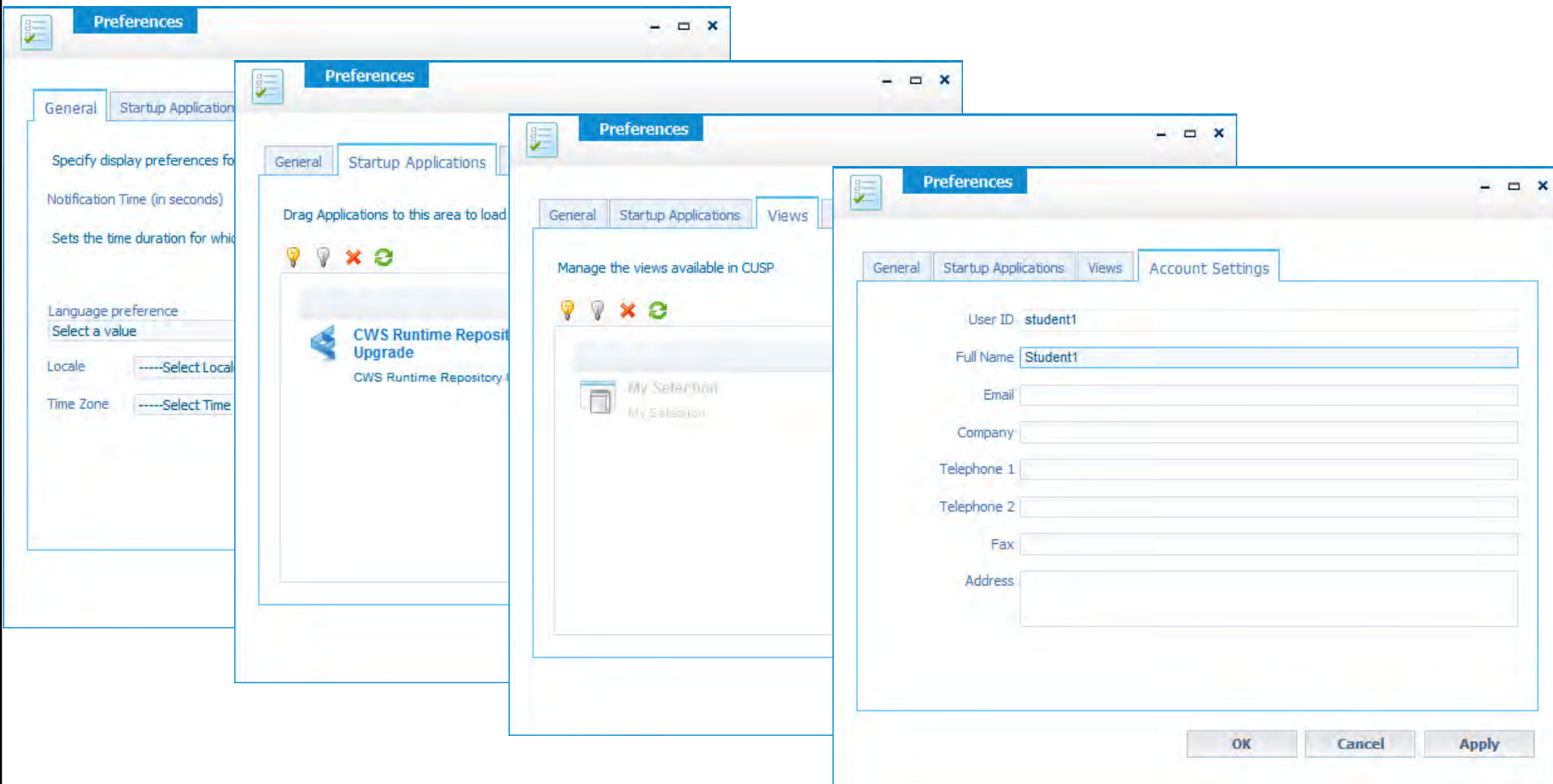
Tag Cloud



Shortcut Bar



User Start Page Preferences



URLs, User IDs and Passwords for this class

- Windows Log In - **admin** **opentext**
- Process Platform - **analyst** **opentext**
 student **opentext**
 procadmin **opentext**
- SQL Server **sa** **opentext**
- Process Platform User Start Page URL:
<http://localhost:81/home/Warehouse/>
- Process Experience URL:
<http://localhost:81/home/Warehouse/app/processExperience/web/perform/>
- Process Experience Administration URL:
<http://localhost:81/home/Warehouse/app/admin/web/config/>

Chapter 1 - Topics

- About OpenText
- OpenText Process Suite
- OpenText Process Suite Community
- Process Platform User Start Page
- Chapter 1 - Exercises (~20 min)

Chapter 1 - Summary

- About OpenText
 - OpenText Process Suite
 - OpenText Process Suite Community
 - Process Platform User Start Page
-
- Chapter 1 Exercises

Chapter 2 - Entity Modeling

Chapter 2 - Topics

- Development Management
- Organizations, Workspaces, and Projects
- Creating and Defining Entities
- Validating a Solution

- Chapter 2 - Exercises

Development Management

- Software Configuration Management (SCM)
 - Version Control
 - Branching
- Team Collaboration
 - Concurrent Development
 - Code Synchronization
- Release Management
 - Versioned Releases
 - (Automated) Testing

Application Packages (CAPs)

- Bundled application components
 - Business Process Models
 - Web Service Interfaces
 - Roles
 - Files (html, jar, xml, xsd,...)
 - Documentation
 - Connectors
 - User Interfaces
- Used to transfer solutions from one environment to another by system administrators
 - (e.g., Development, Test, Production)

Chapter 2 - Topics

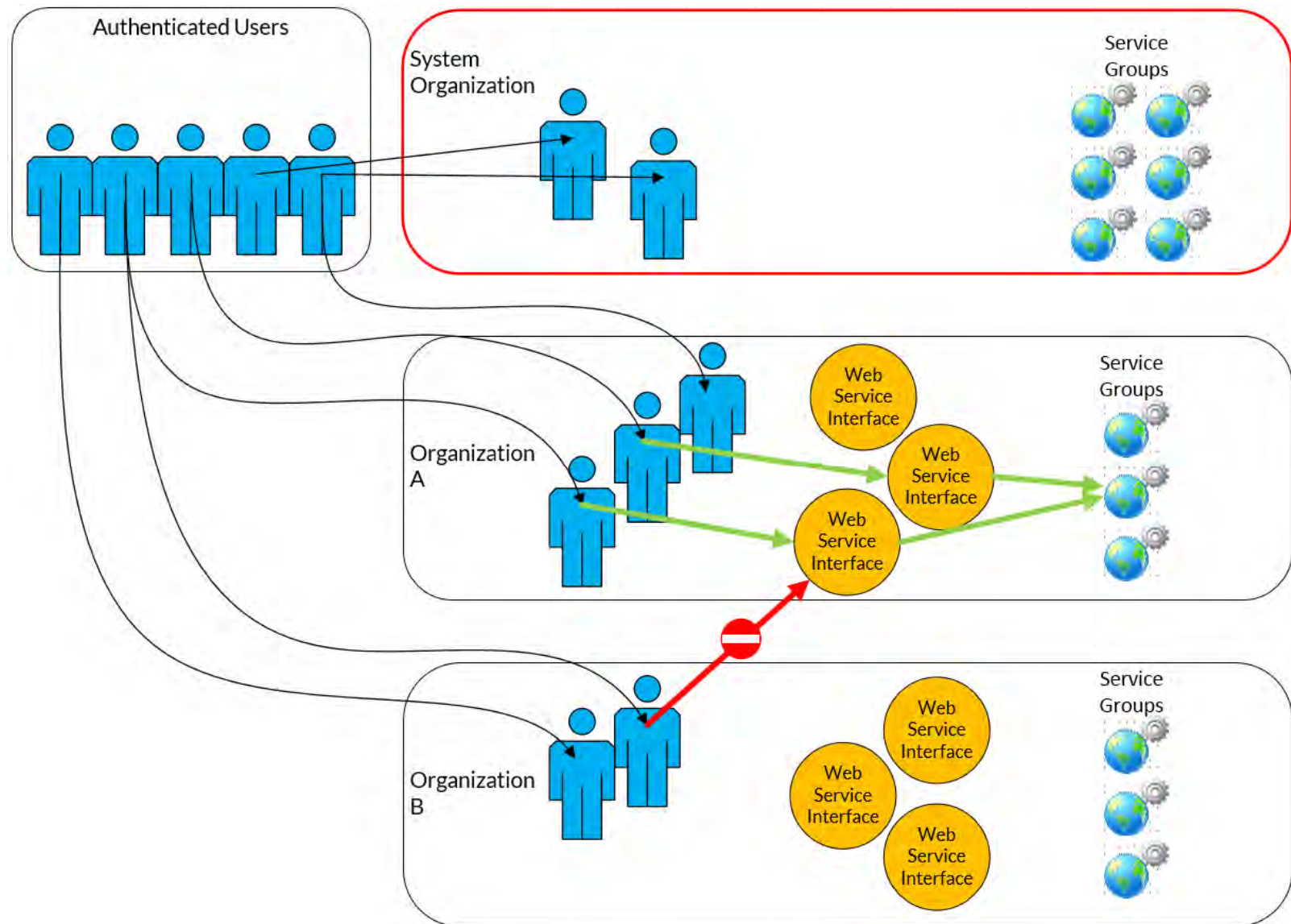
- Development Management
 - Organizations, Workspaces, and Projects
 - Creating and Defining Entities
 - Validating a Solution
-
- Chapter 2 - Exercises

Organizations

- System Organization
 - Used by the system administrator to manage
 - Process Platform Licensing
 - Organizations
 - Platform Service Groups
 - Process Platform Monitor, LDAP, XML,
 - Shared Application Service Groups
 - Loading & Unloading Process Platform Application Packages (CAPs)
 - **Never develop applications in the system organization!**
- Development Organizations
 - Used to develop and execute solutions
 - Contains applications for a specific business area (tenant)

User Management in Process Platform

- Only users who belong to an Organization can execute its Services

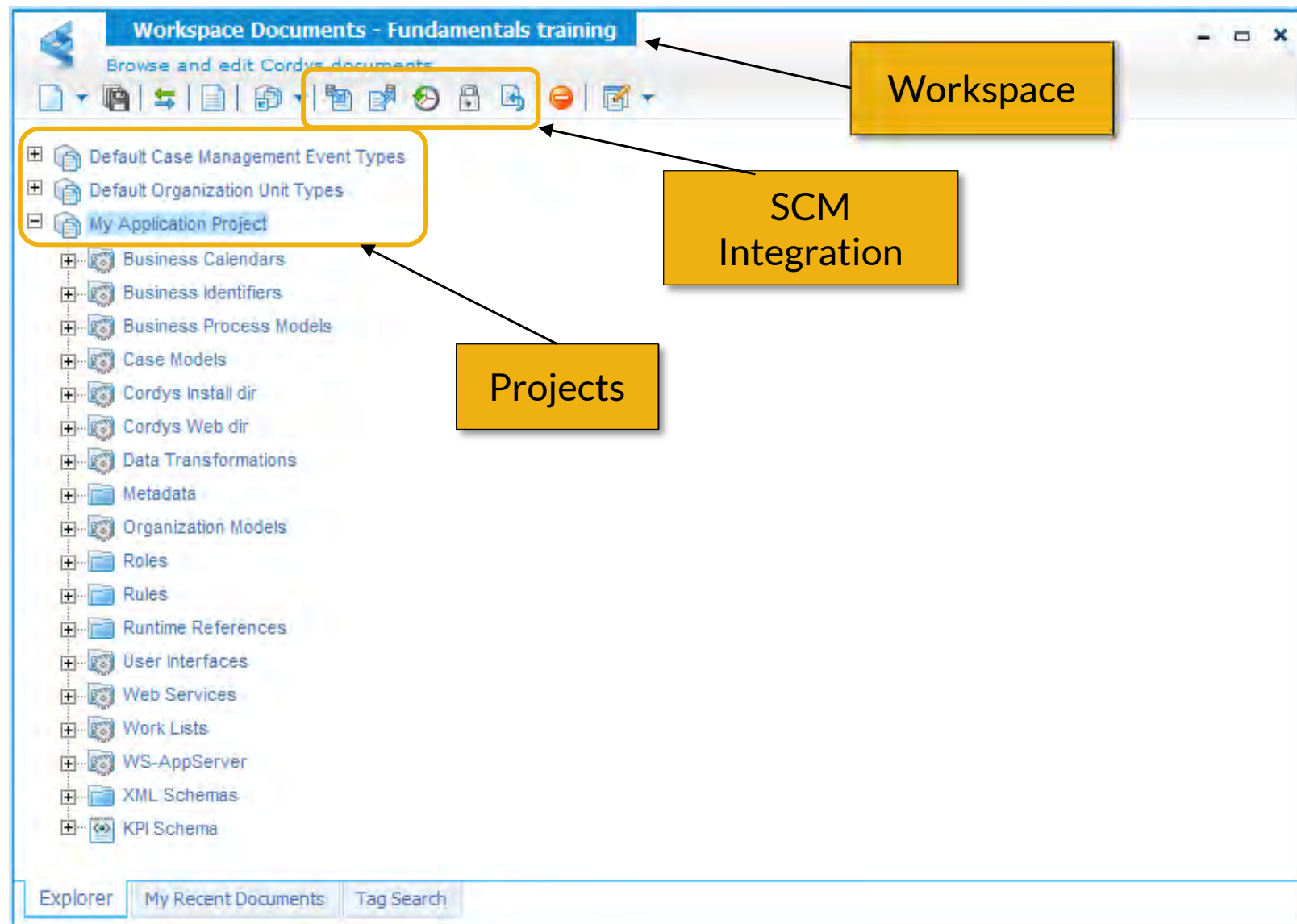


Organization Access Control

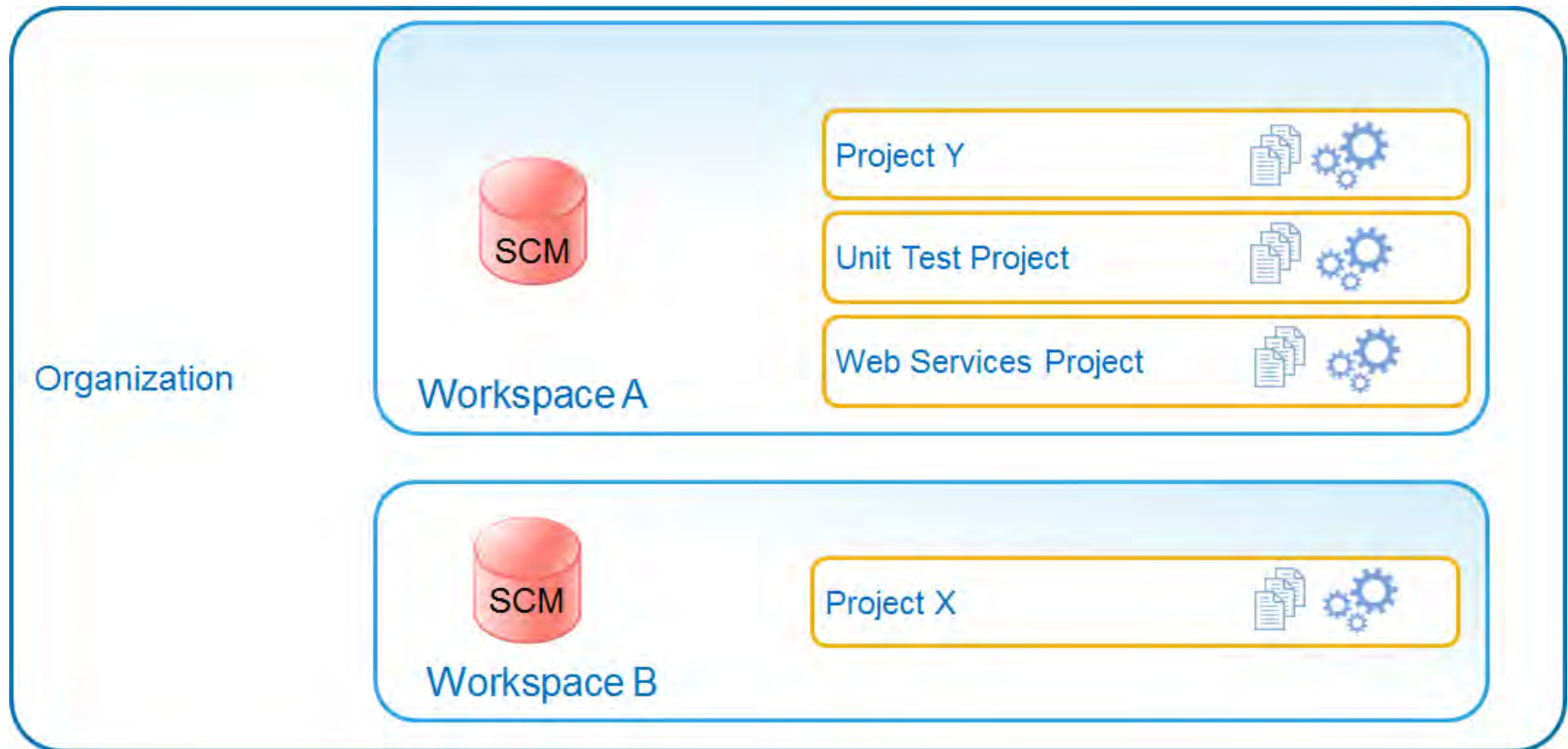
- Users work in their own organization(s)
 - An administrator must add a user to an organization before the user can execute Web service operations in that organization
- The Process Platform browser interface shows
 - The organizations of the current user
 - The roles and tasks assigned to the current user
- Single sign-on is supported through OpenText Directory Services (OTDS)
 - The user only has to log in once
- Stand alone Web Service calls
 - The URL contains the name of the organization
 - if none specified, it uses default organization of user
 - Authentication is required each time the method is invoked

Collaborative Workspace

- Development Environment for building Process Platform Applications

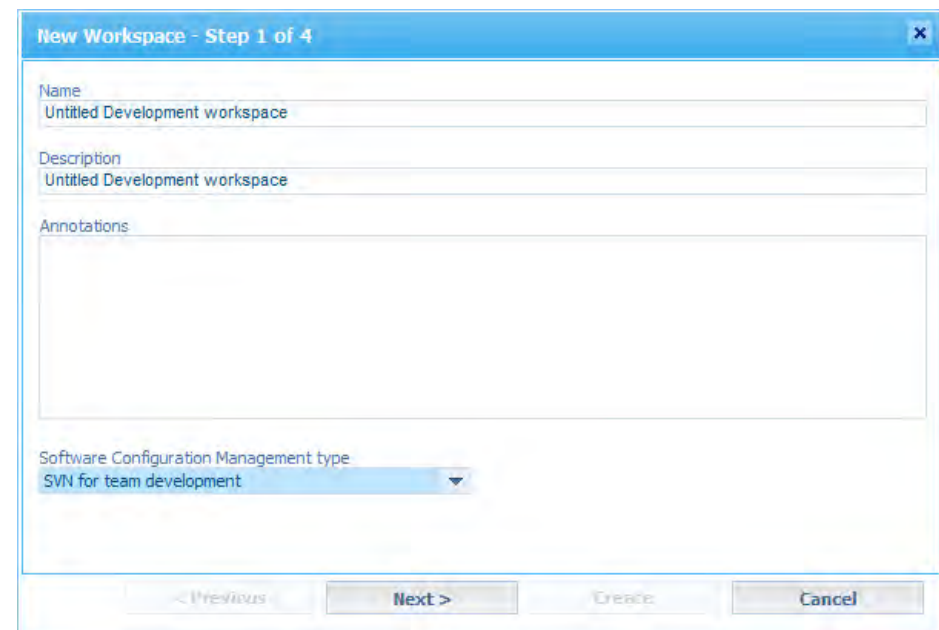
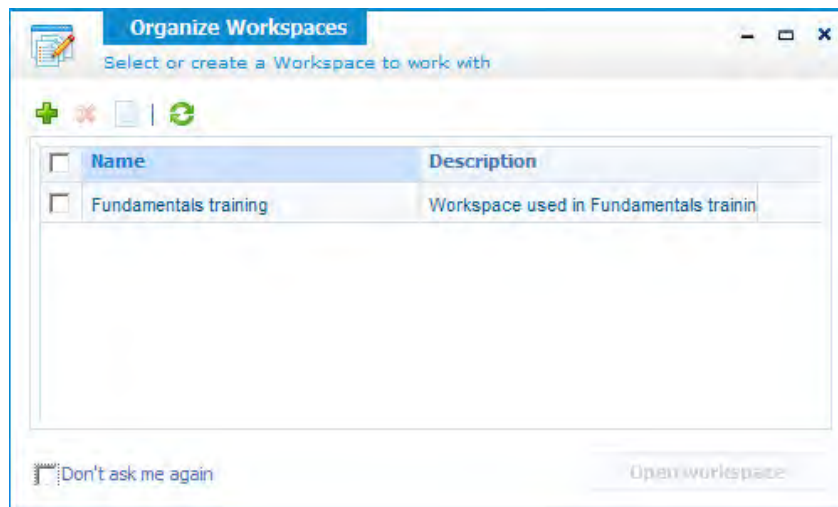


Workspace Containing Project(s)



Workspace

- A Workspace is an isolated development environment
- Typically associated to a Source Control Management system
- Contains projects



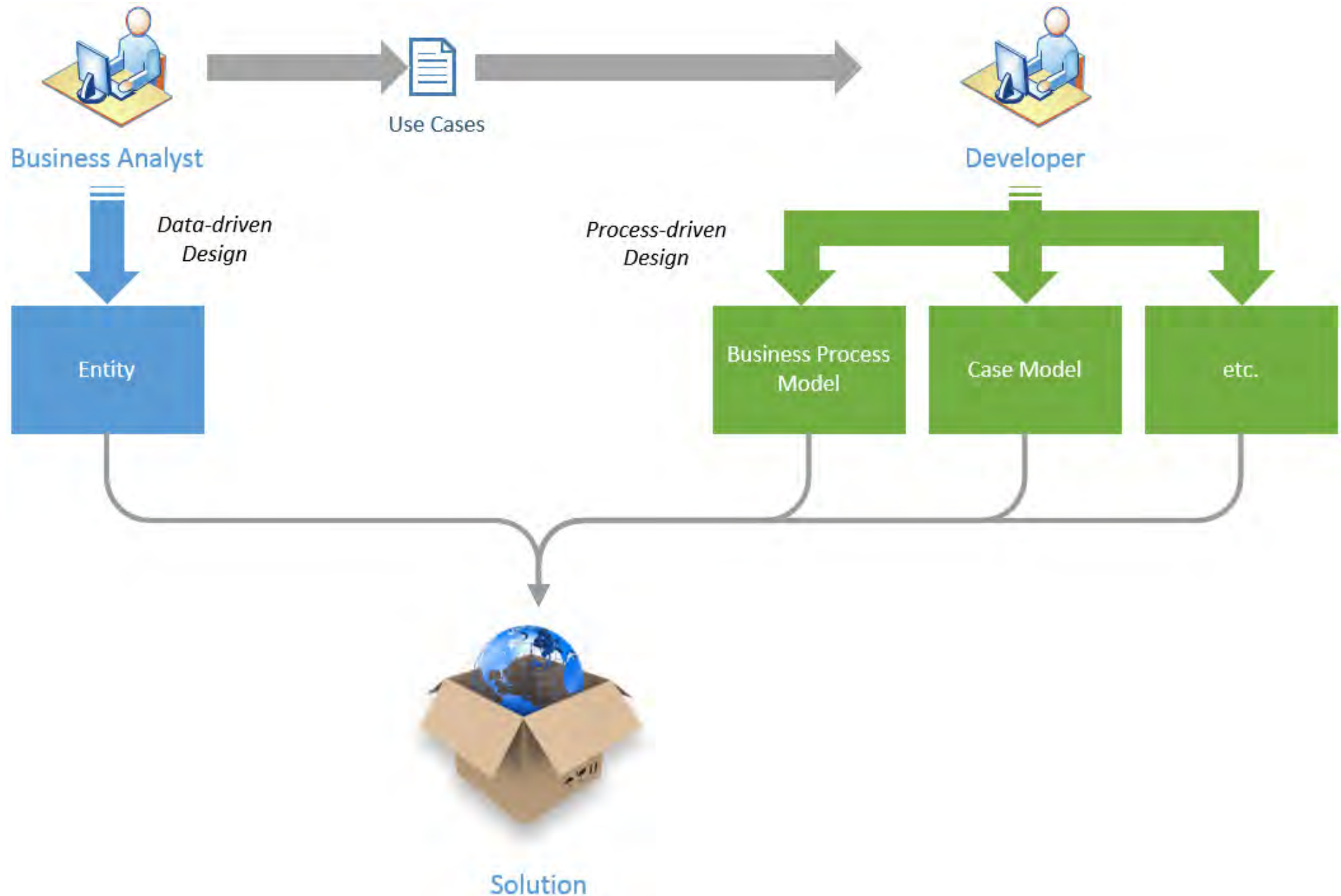
Project

- Container for all documents that together form an Application
 - Single view of the content which can be validated, published, and packaged
 - Content organized in a folder structure
 - Content viewed in the Workspace Explorer tab
 - Content can be used by multiple solutions within the same workspace
- Project contents
 - Process Platform documents
(e.g., entity models, process models, rules, etc.)
 - Run time references
(e.g., to existing Process Platform application content)
 - External content
(e.g., files, CSS, JavaScript, JAR files, HTML, images, etc.)

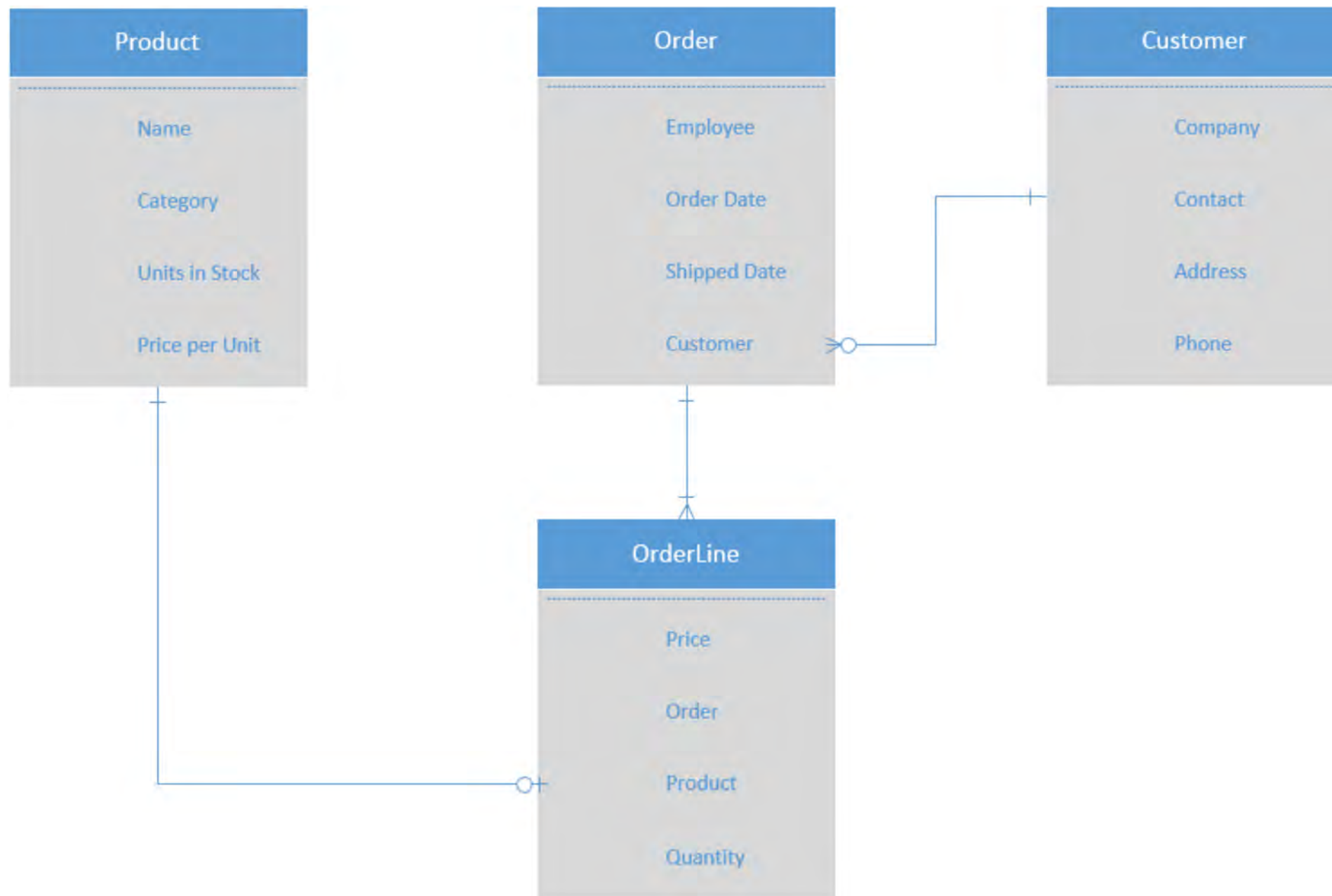
Chapter 2 - Topics

- Development Management
 - Organizations, Workspaces, and Projects
 - **Creating and Defining Entities**
 - Validating a Solution
-
- Chapter 2 - Exercises

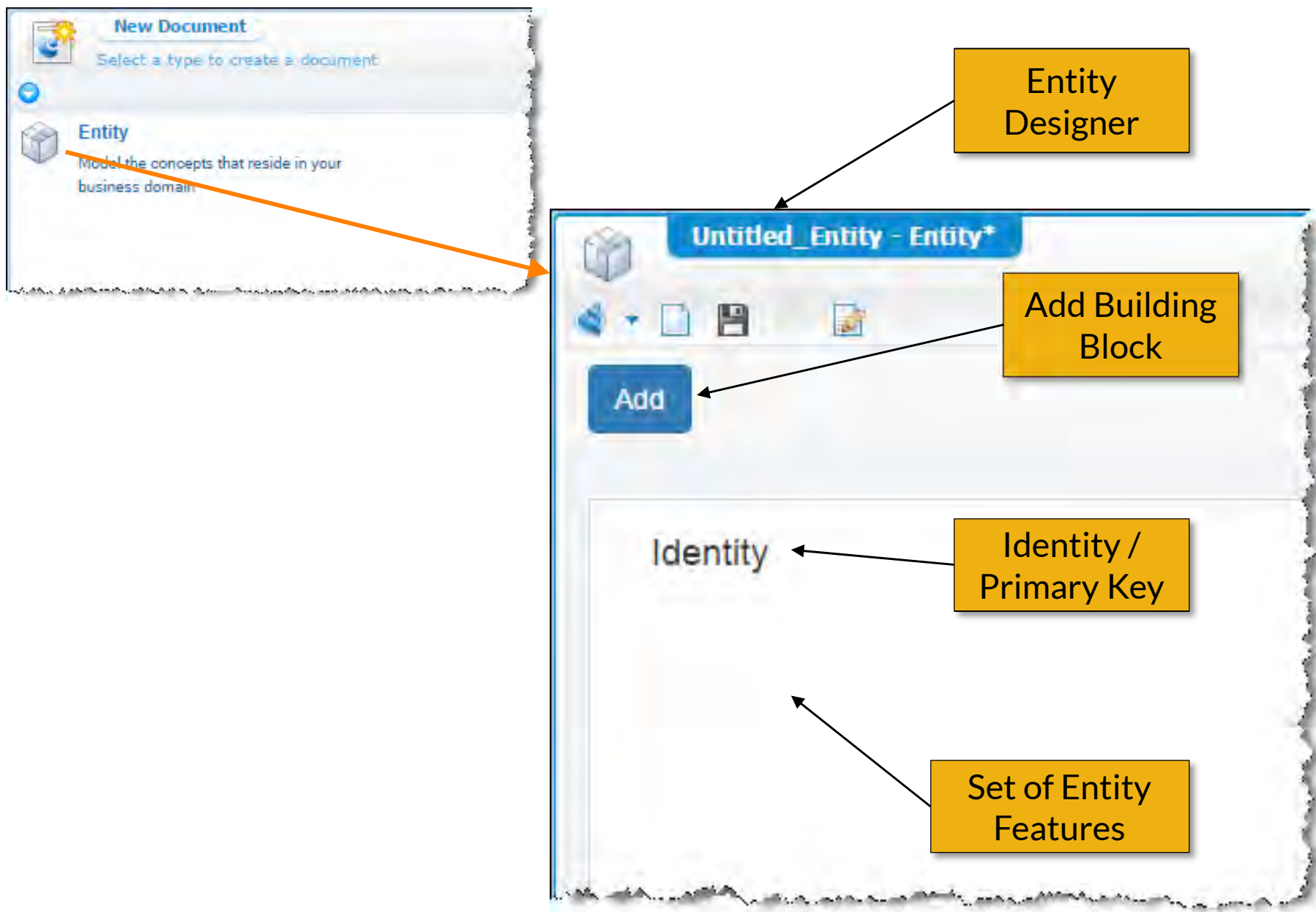
Data-driven and Process-driven Modeling



Business Objects (Entities) in Solution Scenario



Entities Designer



Entity Designer: Building Blocks

Add

☒ Action Bar
☐ Content
☐ Discussion
☐ File
☐ Form
☐ History
☐ Layout
☐ Lifecycle
☐ List
☐ Property
☐ Relationship
☐ Rule
☐ Security
☐ Title
☐ Web Service

Action Bar Details

Display Name

|

Name


UntitledActionBar

Description

UntitledActionBar

Building Blocks

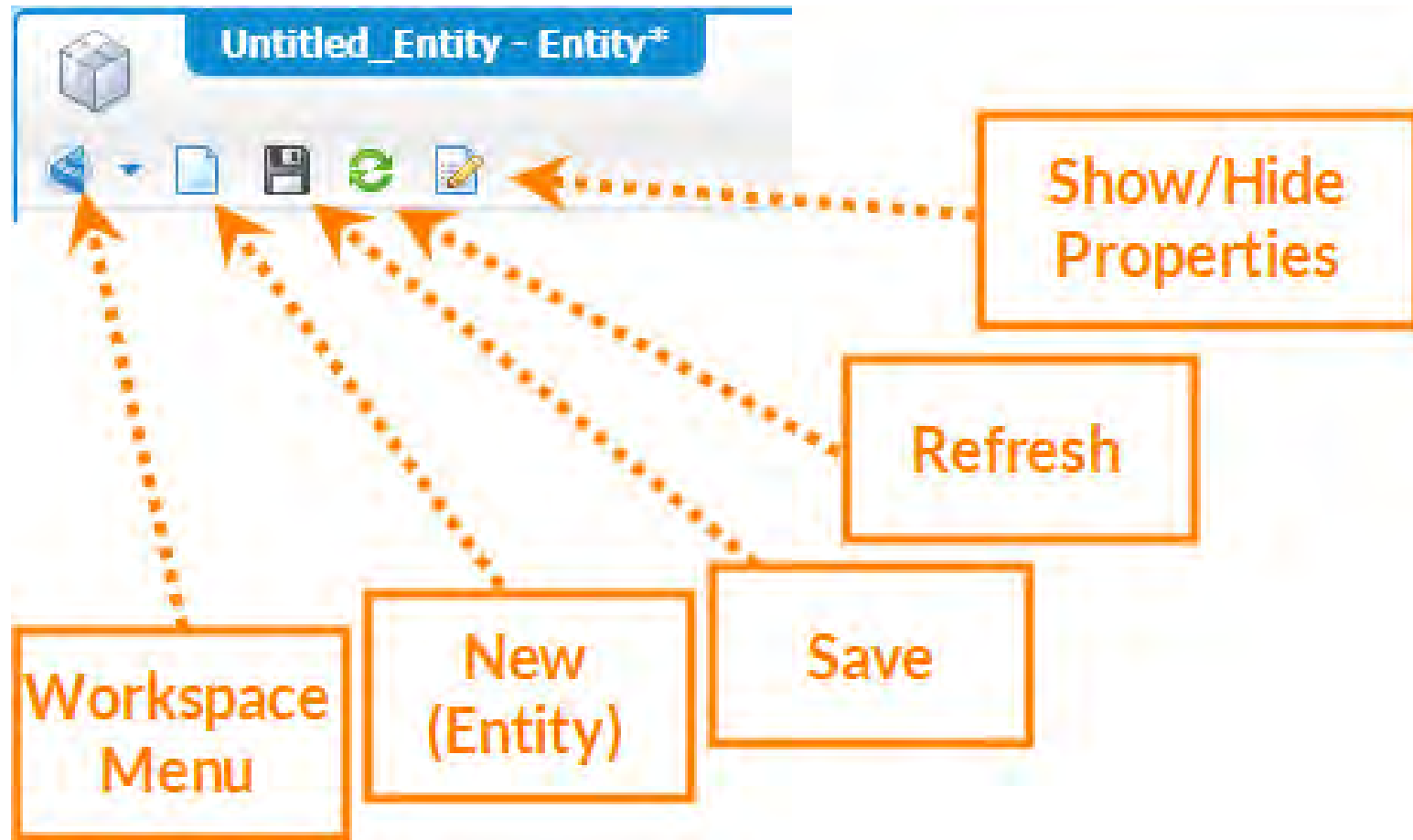
Building Block Details



Entity Building Blocks

- Action Bar
- Content
- Discussion
- File
- Form
- History
- Layout
- Lifecycle
- List
- Mobile App
- Property
- Relationship
- Rule
- Security
- Title
- Web Service

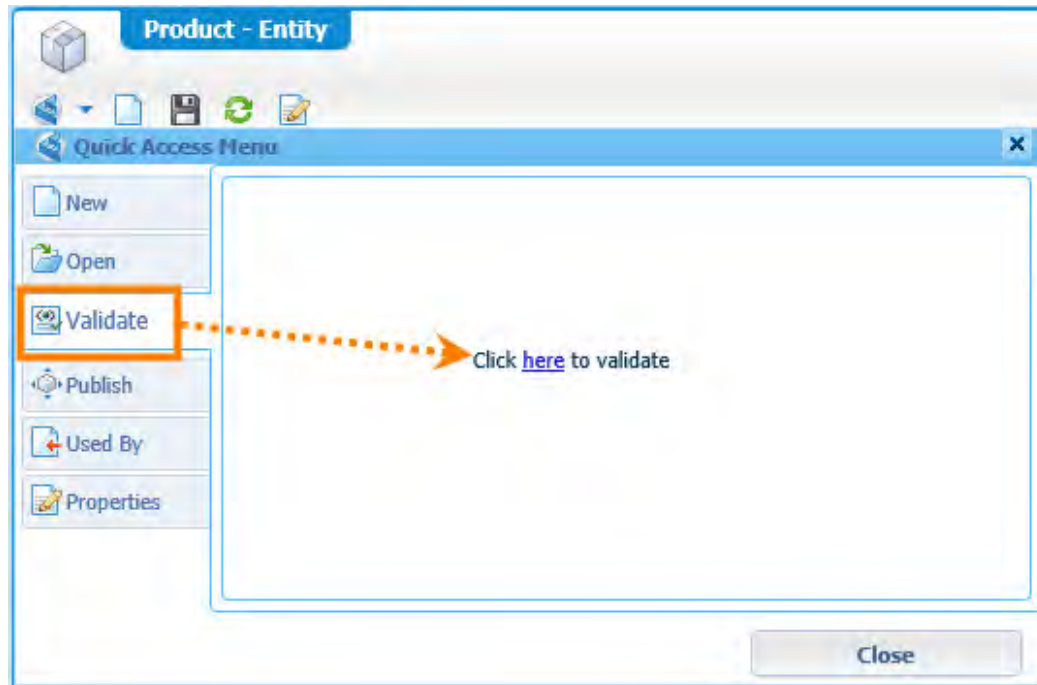
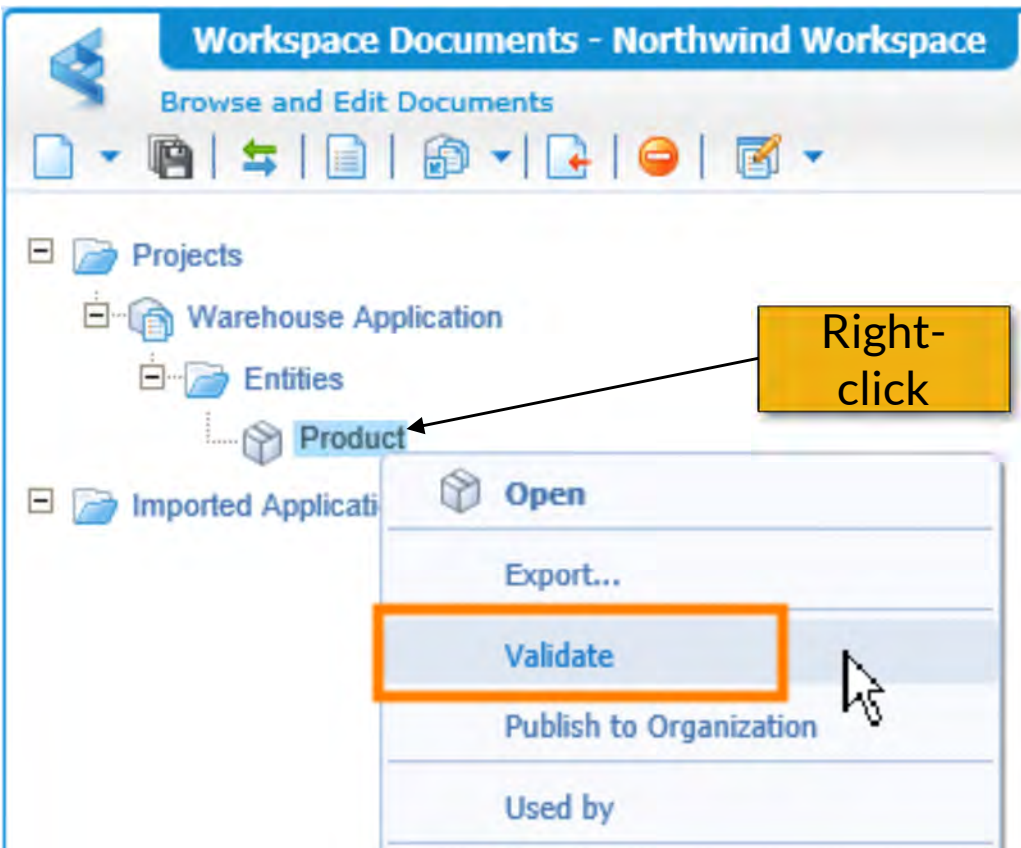
Entity Designer Toolbar



Chapter 2 - Topics

- Development Management
- Organizations, Workspaces, and Projects
- Creating and Defining Entities
- **Validating a Solution**
- Chapter 2 - Exercises

Validating Workspaces, Projects, Documents



Chapter 2 - Topics

- Development Management
- Organizations, Workspaces, and Projects
- Creating and Defining Entities
- Validating a Solution
- Chapter 2 - Exercises (~20 min)

Chapter 2 - Summary

- Development Management
 - Organizations, Workspaces, and Projects
 - Creating and Defining Entities
 - Validating a Solution
-
- Chapter 2 - Exercises

Chapter 3 - Entity Properties and Relationships

Chapter 3 - Topics

- Building Blocks
 - Property Building Blocks
 - Relationship Building Blocks
 - Title Building Block
-
- Chapter 3 - Exercises

Types of Building Blocks

- Structural
 - Property
 - Relationship
 - Rules
- Functional
 - Title
 - Content
 - File
 - Lifecycle
 - Security
 - Discussion
 - History
- Decorative
 - Form
 - Layout
 - List
 - Action Bar
 - Web Service

Chapter 3 - Topics

- Building Blocks
 - **Property Building Blocks**
 - Relationship Building Blocks
 - Title Building Block
-
- Chapter 3 - Exercises

Property Types

- Boolean
- Date
- Date and Time
- Decimal
- Duration
- Float
- Integer
- Enumerated Integer
- Text
- Long Text
- Enumerated Text

Deleting a Property

- Warning - No confirmation and No undo
But, you can undo by closing the Entity without Saving and Re-opening

Identity

Properties

ProductName

QuantityPerUnit

UnitPrice

✕ Delete

UnitsInStock

Editing a Property

- Note - You cannot change the Name or the Type of a Property

The screenshot shows a 'Property Details' form with the following fields and annotations:

- Display Name:** A text input field containing 'Name'. An annotation box labeled 'Display Name' points to this field.
- Name:** A text input field containing 'ProductName'. An annotation box labeled 'Internal Name (not editable)' points to this field.
- Property Type:** A dropdown menu showing 'Text'. An annotation box labeled 'Data Type (not editable)' points to this field.
- Length:** A text input field containing '64'. An annotation box labeled 'Length, decimal places' points to this field.
- Default Value:** An empty text input field. An annotation box labeled 'Default Value' points to this field.
- Allow participants to change the value:** A dropdown menu showing 'Anytime'. An annotation box labeled 'Allow Changes:' points to this field.
- When users work on this property at the same time, report conflicts:** A dropdown menu showing 'Never'. An annotation box labeled 'Report Conflicts When:' points to this field.
- Available for use by others:** A checkbox that is unchecked. An annotation box labeled 'Use in other solutions' points to this checkbox.

Allow Changes:

- Anytime
- Never
- Only when created

Report Conflicts When:

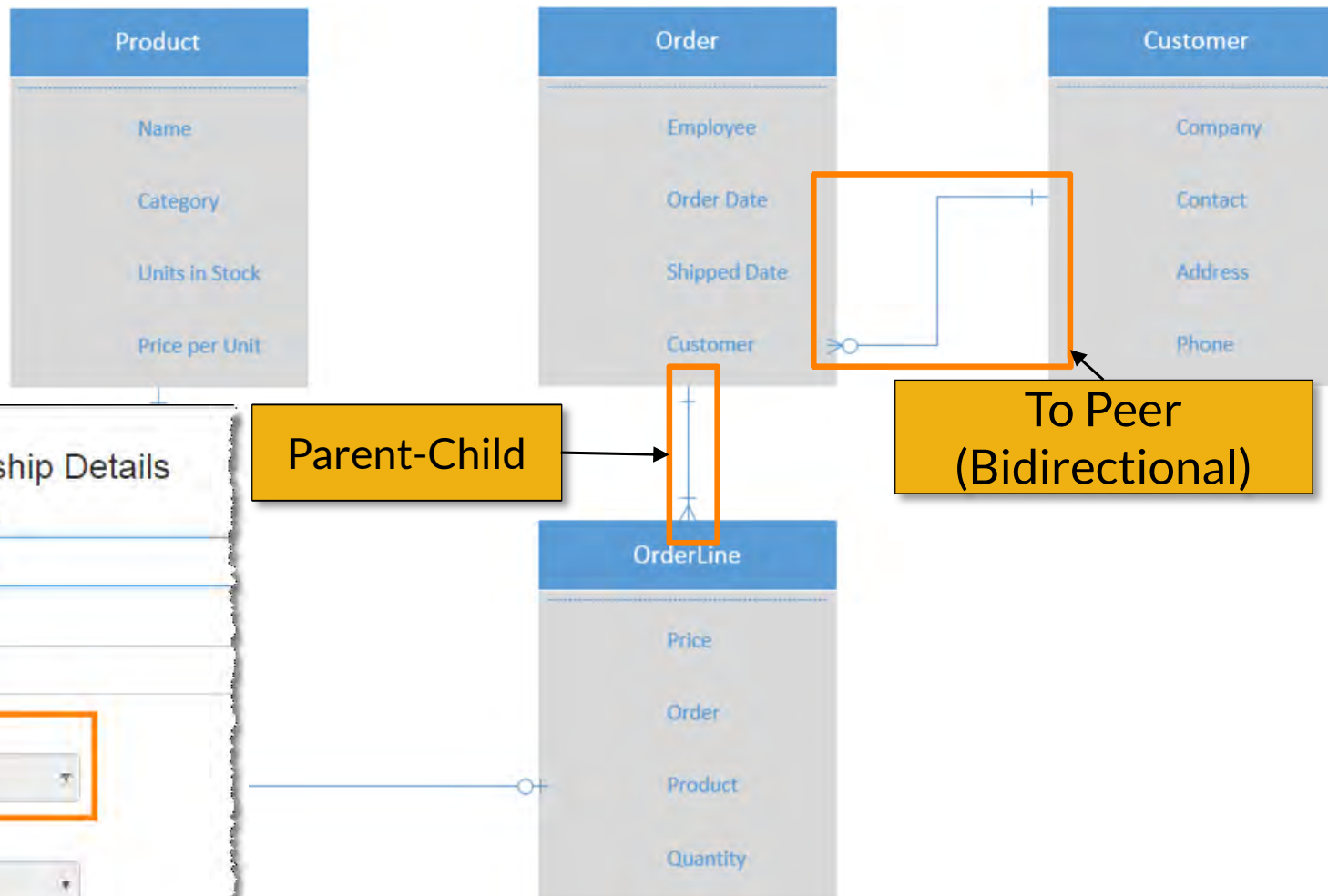
- Changed by other user
- Changed to different value
- Changed to same value
- Never

Use in other solutions

Chapter 3 - Topics

- Building Blocks
 - Property Building Blocks
 - Relationship Building Blocks
 - Title Building Block
-
- Chapter 3 - Exercises

Peer and Parent-Child Relationships



"A customer may have several orders / An order must include a customer"

Relationship Details

Display Name

Order Line

Name

OrderLine

Type

To Child

Multiplicity

To Many

Child Name

OrderLine

Relationship Details

Display Name

Customer Order

Name

CustomerOrder

Type

To Peer

Multiplicity

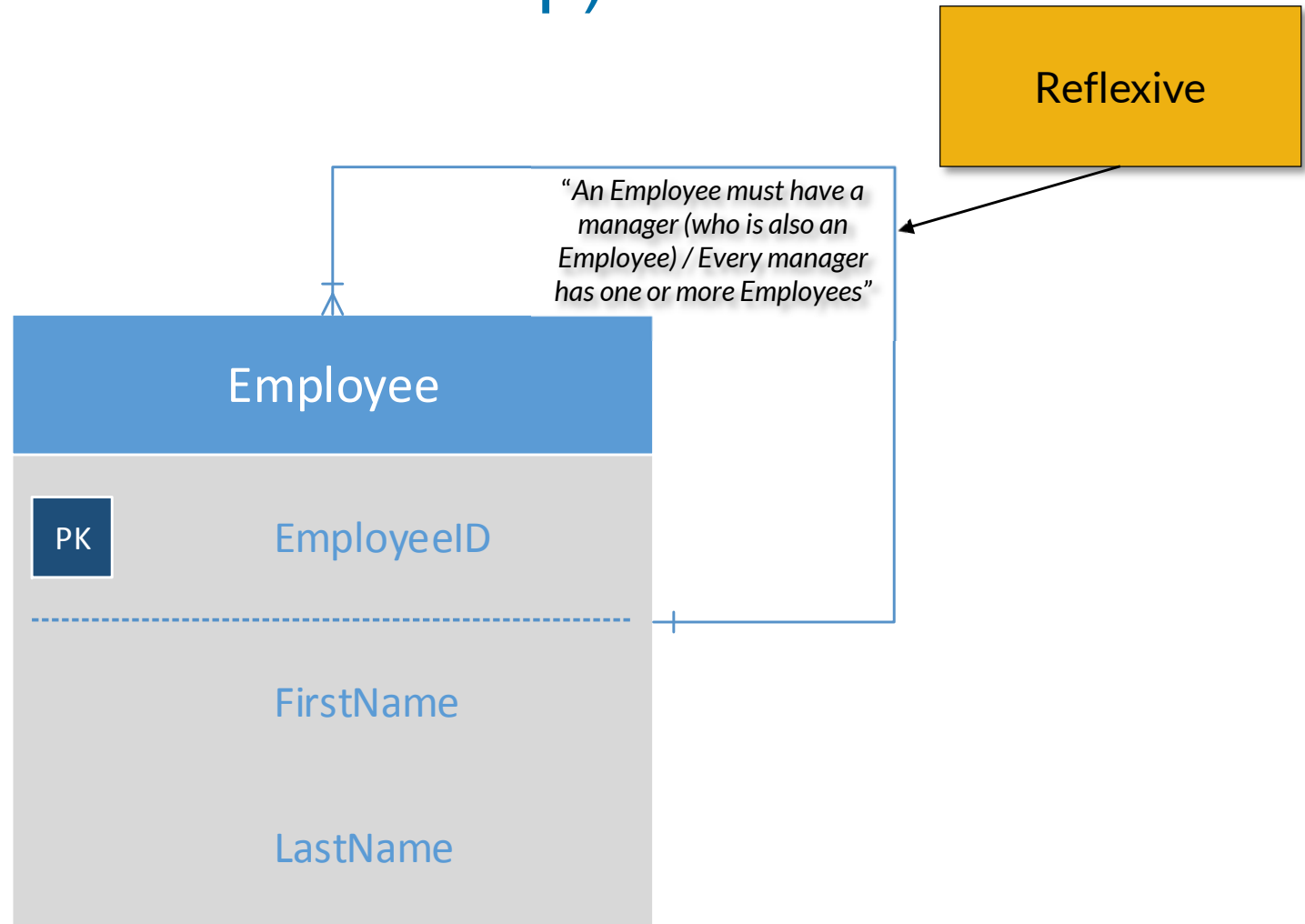
To One

Target Entity

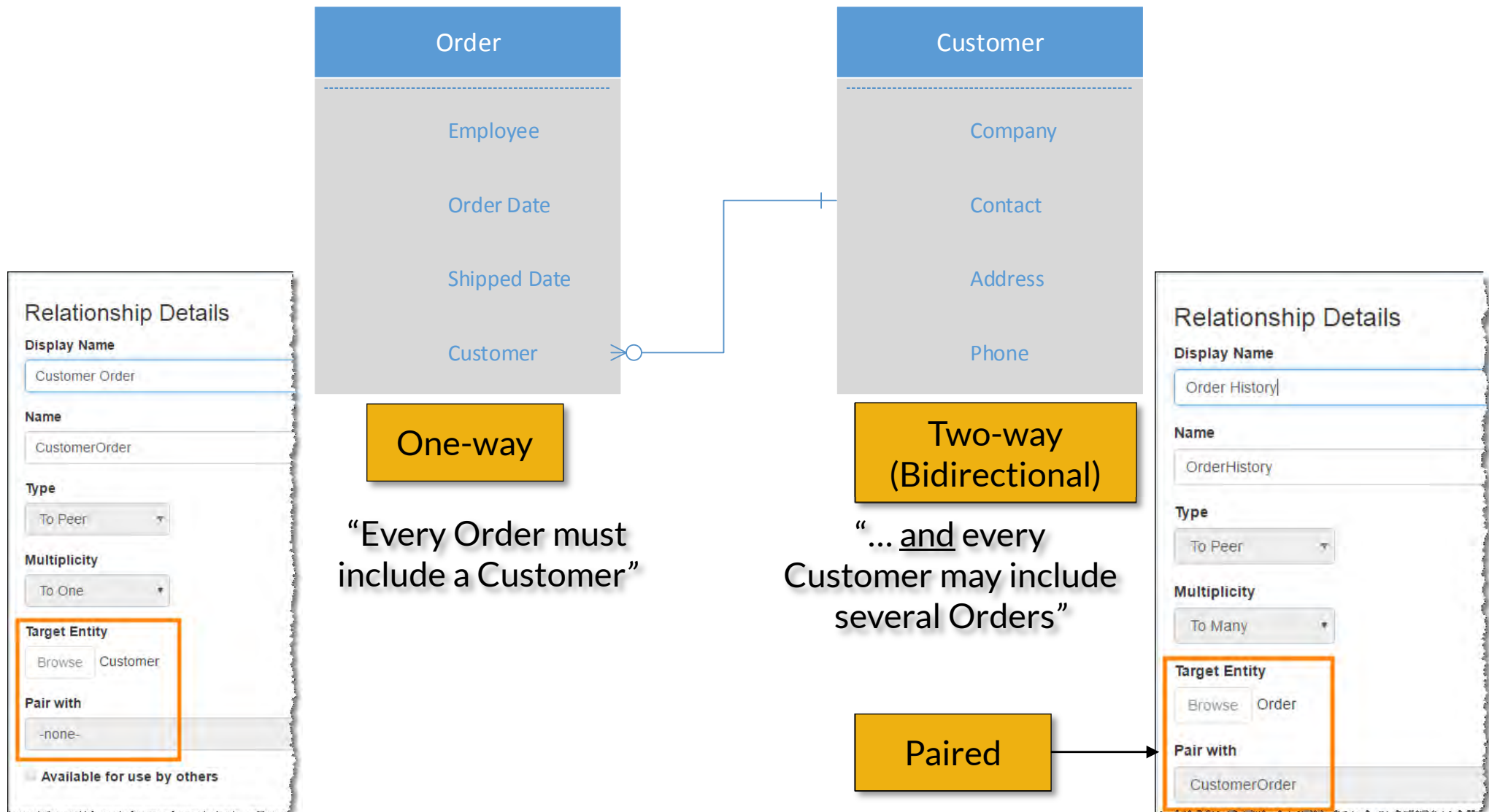
Browse Customer

"An order will have several line items / Each line item is included in one order"

Reflexive Relationship (a/k/a Recursive Relationship)

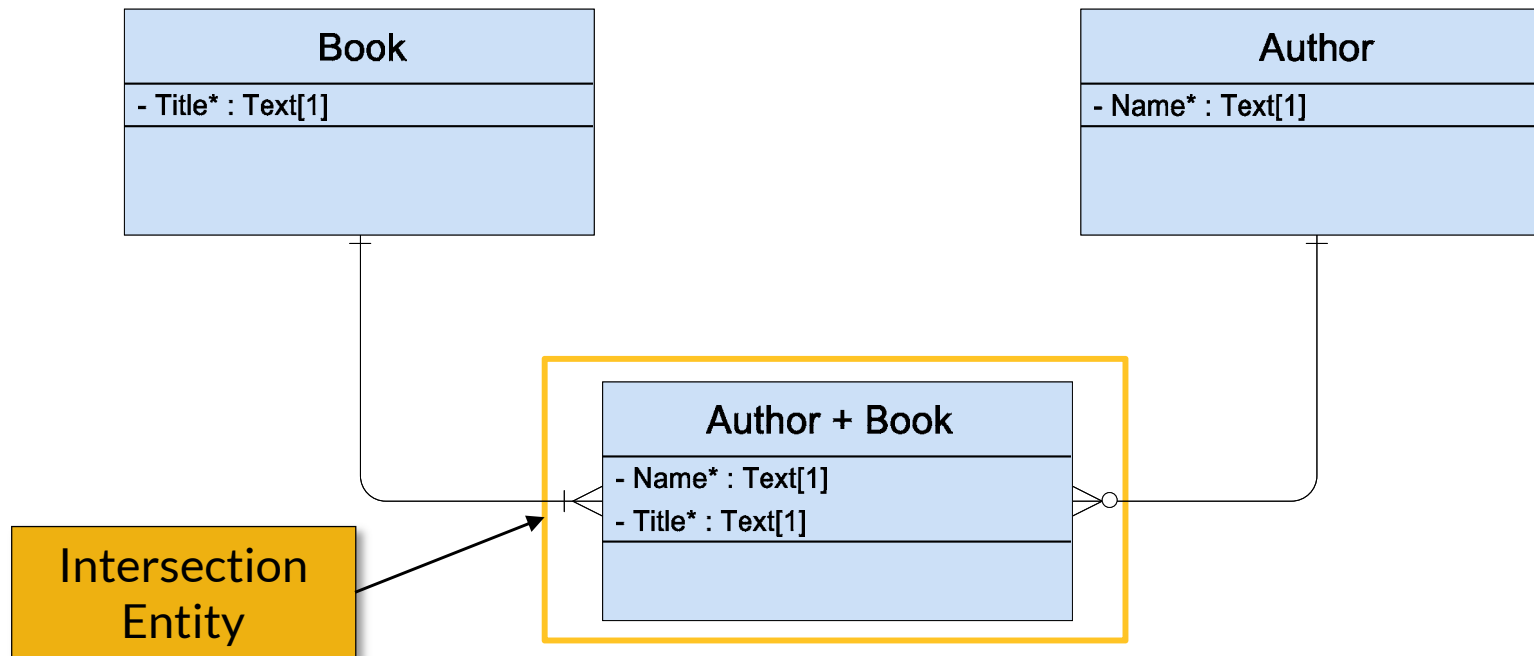


Relationship Direction



Multiplicity (a/k/a Cardinality)

- To One
 - “An Employee has one (and only one) Manager”
- To Many
 - “An Order has one to many Line Items”
- Many-to-Many
 - Implement with an intermediate “intersection” entity



Chapter 3 - Topics

- Building Blocks
- Property Building Blocks
- Relationship Building Blocks
- Title Building Block
- Chapter 3 - Exercises

Title Specification

- Distinguishes entity instances from one another

Title

This option adds the title property to an entity. The "System" Create By option.

Name

Title

Create By

User

User sets value
when instance
created

Title

This option adds the title property to an entity. The "System" Create By option.

Name

Title

Create By

System

Title Specification

Product

System sets value from
specification
(use expression language)

Chapter 3 - Topics

- Building Blocks
- Property Building Blocks
- Relationship Building Blocks
- Title Building Block
- Chapter 3 - Exercises (~45 min)

Chapter 3 - Summary

- Building Blocks
 - Property Building Blocks
 - Relationship Building Blocks
 - Title Building Block
-
- Chapter 3 - Exercises

Chapter 4 - Process Experience, Lists, and Action Bars

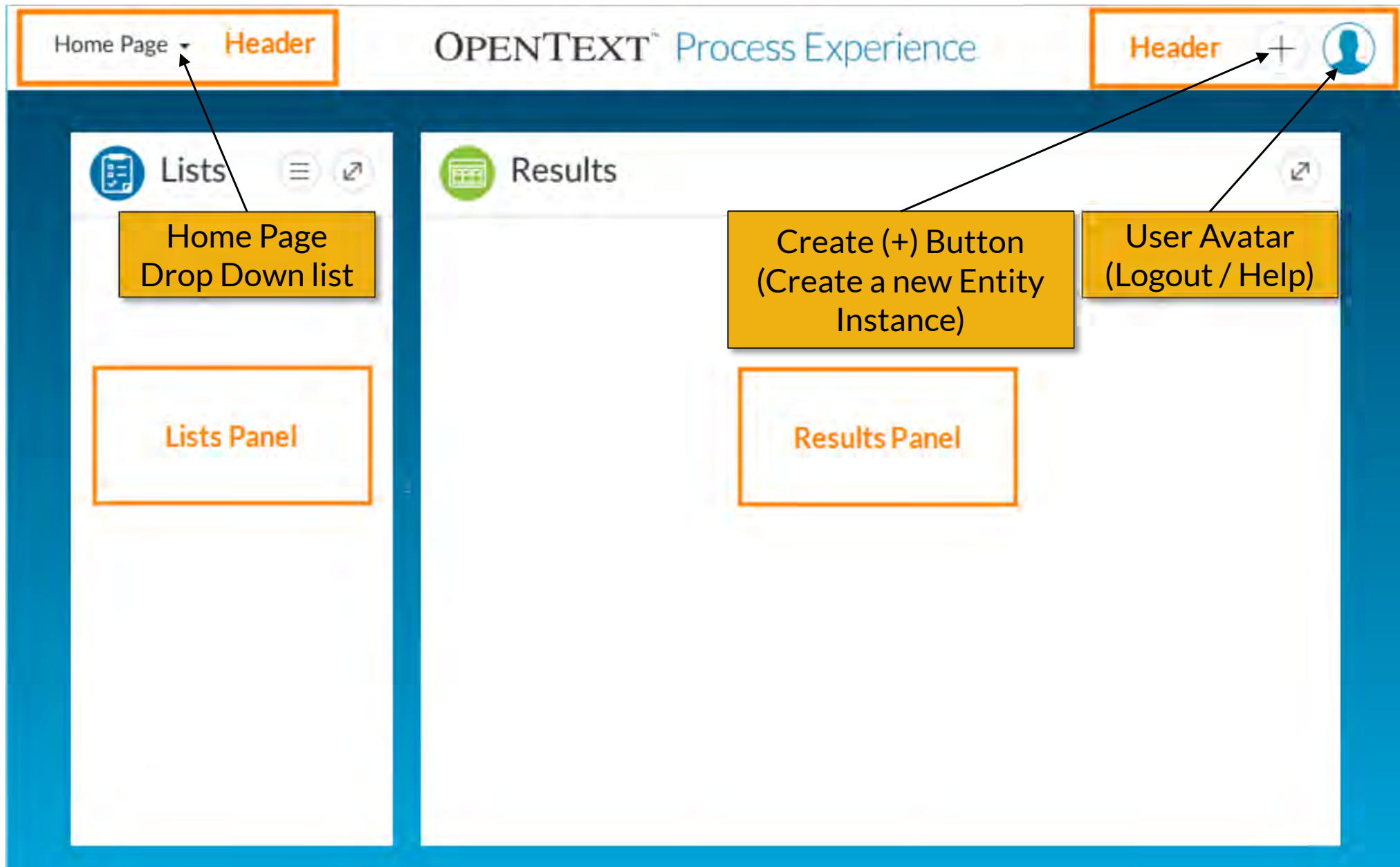
Chapter 4 - Topics

- Process Experience
- List Building Block
- Action Bar Building Block
- Publishing to Process Experience
- Configuring Solution Security
- Chapter 4 - Exercises

Process Experience

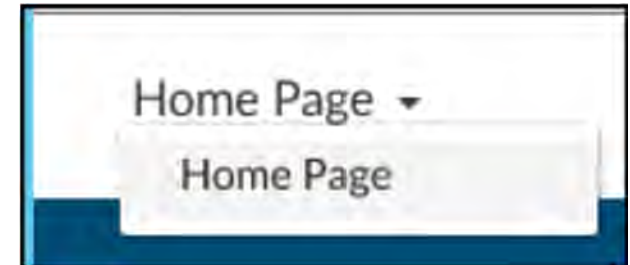
- Browser-based User Interface for Process Platform applications
 - Users can view, track, manage, process and complete tasks
 - Managers can administer and organize work into lists and assign to users
 - Builders can create home pages, data forms, user interface layouts, and Lists
 - Entity Modeling solutions (applications) are Published to enable access and execution in Process Experience
- Users must log in to Process Experience, and then their access depends on their assigned roles
 - Users and Roles are managed in OpenText Directory Services (OTDS) (not covered in this course)

Process Experience - Default Home Page



Home Pages in Process Experience

- One default Home Page included when Process Experience is installed
- Other Home Pages may be added with the Home Page Layout document
 - See Chapter 5
- Users may choose which Home Page is displayed on login



Creating Entity Instances

- Click the Create (+) Button
 - Select an Entity under Recent Items or All Items
 - Recent items
 - 10 most recent items created
 - Arranged descending by time
 - All Items - all Entities that can be created
 - Restricted by Security (User Role)
 - A Create Form will open for creating a new Entity Instance



Create (+) Button
(Create a new Entity
Instance)

Working with Panels

The diagram illustrates the components and interactions of panels in the OpenText interface. It shows three panels: 'Lists', 'Create', and 'Results'.

Lists Panel: This panel has a title 'Lists', a function menu (three horizontal lines), and a maximize/restore button (two arrows). Dotted orange arrows point from these elements to labels: 'Maximize/Restore', 'Function menu', 'Panel title', and 'Panel items'.

Create Panel: This panel has a title 'Create', a filter/search criteria input field, an edit button (pencil icon), and a maximize/restore button (two arrows). Dotted orange arrows point from these elements to labels: 'Filter/Search Criteria', 'Edit', and 'Maximize/Restore'.

Results Panel: This panel has a title 'Results', an 'Apply' button, and a filter sub-panel. The filter sub-panel has a 'Show' button (greater-than sign) and a 'Hide' button (less-than sign). A yellow box with a black border contains the text: 'Filter sub-panel (Click (>) button to Show; click (<) button to Hide)'. A solid black arrow points from this box to the 'Show' button. A dotted orange arrow points from the 'Hide' button to the label 'Hide'.

Interactions: Dotted orange arrows show the flow of information and interaction between the panels. An arrow points from the 'Lists' panel to the 'Create' panel. Another arrow points from the 'Results' panel to the 'Create' panel. A dotted orange arrow points from the 'Show' button in the 'Results' panel to the 'Filter' input field in the 'Create' panel.

Using Filters with Panels

Results

Apply ← **Apply filter**

Name ^

☒ Equal to ☐ Range ☐ Advanced

Price per Unit ^

☒ Equal to ☐ Range ☐ Advanced

Category ^

☒ Equal to ☐ Not equal to ☐ Advanced

- ☐ Beverages
- ☐ Condiments
- ☐ Confections
- ☐ Dairy Products
- ☐ Grains/Cereals
- ☐ Meat/Poultry
- ☐ Produce

Properties available for filter

Panels Functions and Types

Panel Functions

- Maximize / Restore
- Resize
- Tabbed Panels
- Sub-panels

Panel Types

- Action Panel
- Create Panel
- Results Panel
- Preview Panel
- List Panel
- External Panel
- Web Panel

Chapter 4 - Topics

- Process Experience
- **List Building Block**
- Action Bar Building Block
- Publishing to Process Experience
- Configuring Solution Security

- Chapter 4 - Exercises

List Details

The screenshot shows a 'List Details' form with the following fields and callouts:

- Display Name**: A text input field with the placeholder 'Enter a Display Name'. A callout box on the left points to this field.
- Name**: A text input field containing 'Untitled_Worklist'. A callout box on the left points to this field with the text 'Internal Name, (cannot be edited)'.
- Default Category**: A text input field. A callout box on the left points to this field with the text 'Group name for lists in Process Experience'.
- Display Count**: A dropdown menu currently set to 'Never'. A callout box on the right points to this field with the text 'Display Count Options:' and a list: '• Never', '• Only in results', '• In lists and results'.
- Results per page**: A section with two radio buttons. The first is selected and has a text input field with '200'. The second is 'All'. A callout box on the right points to this section with the text 'Pagination options:' and a list: '• All', '• Number per page'.
- Visible to end user**: A checkbox that is checked.

Configure List Properties

listActiveProducts - List*

1.) Select Properties tab to choose properties to display in List

2.) Check Properties to include in List

3.) Complete Property presentation options

Available Properties

- Identity
 - ☐ Id
 - ☐ ItemId
- Properties
 - ☐ Category
 - ☐ Discontinued
 - ☐ In Stock
 - ☒ Name
 - ☐ On Order
 - ☐ Price per Unit
 - ☐ Reorder Level
 - ☐ Shipping Units
- Title
 - ☐ Title

Properties shown in results

Expand All Collapse All Remove Move Up Move Down

Name

Column label

Column alignment

Sorting

Include as filter

Hide in results

Column label

Column alignment

Sorting options

Allow filtering

Hide Column

Configure List Filters

ActiveProducts - List*

1.) Select Filters tab to define filters to include in List

Properties Filters

If **all** one of the following are true

-select-

-select-
Category
In Stock
Name
Price per Unit

2.) Set filter inclusion / exclusion option

3.) Select an available property (column) on which to filter instances

Remove, Add, Nest conditions

- + ☰

Chapter 4 - Topics

- Process Experience
- List Building Block
- **Action Bar Building Block**
- Publishing to Process Experience
- Configuring Solution Security

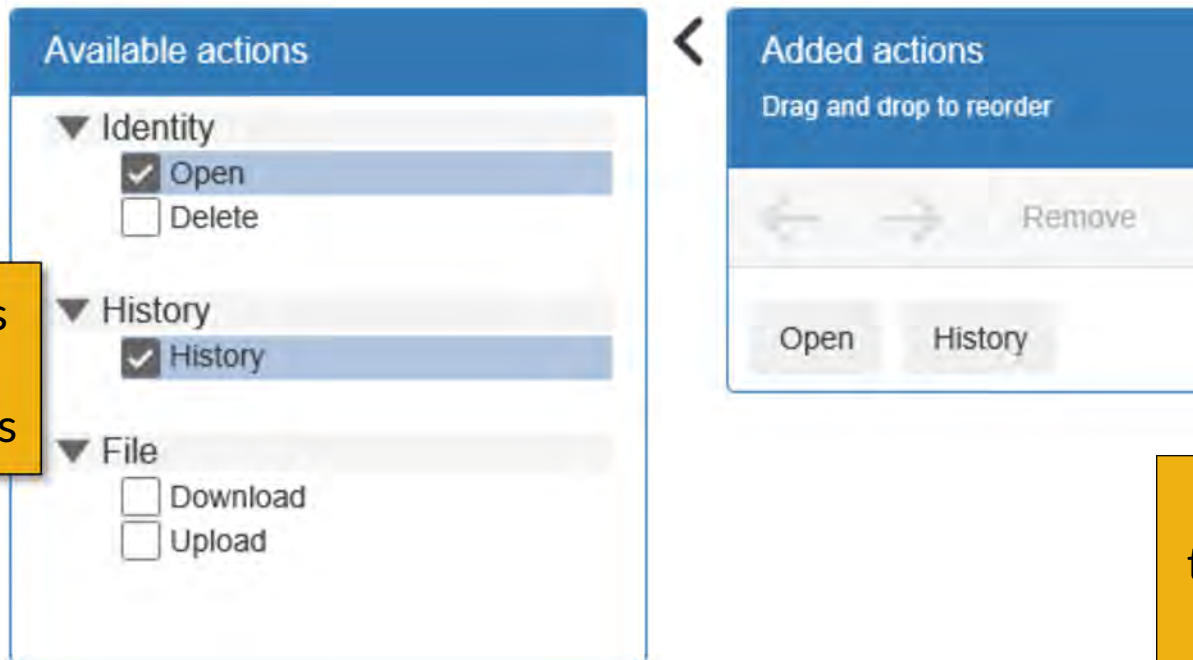
- Chapter 4 - Exercises

Action Bar Building Block

- Contains Buttons to work with an Entity Instance
- Static buttons
 - **Open** - open an Entity instance details
 - **Delete** - delete an entity instance
 - **Upload / Download** - for either File or Content Building Blocks
 - **History** - display history (for a History Building Block)
- Dynamic buttons
 - Rule-based Actions

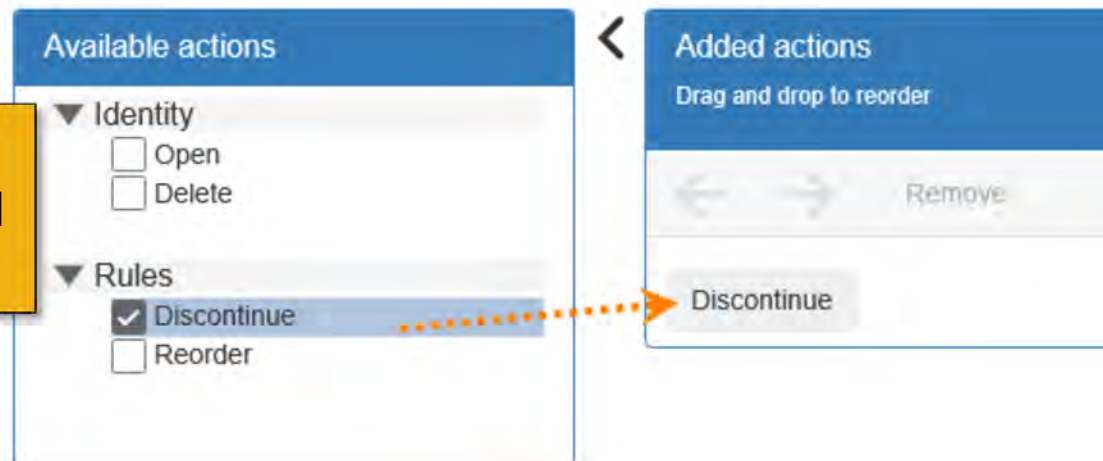
Action Bar Configuration

Static buttons
based on
building blocks



Buttons as
they appear in
Action Bar

Dynamic
buttons based
on rules

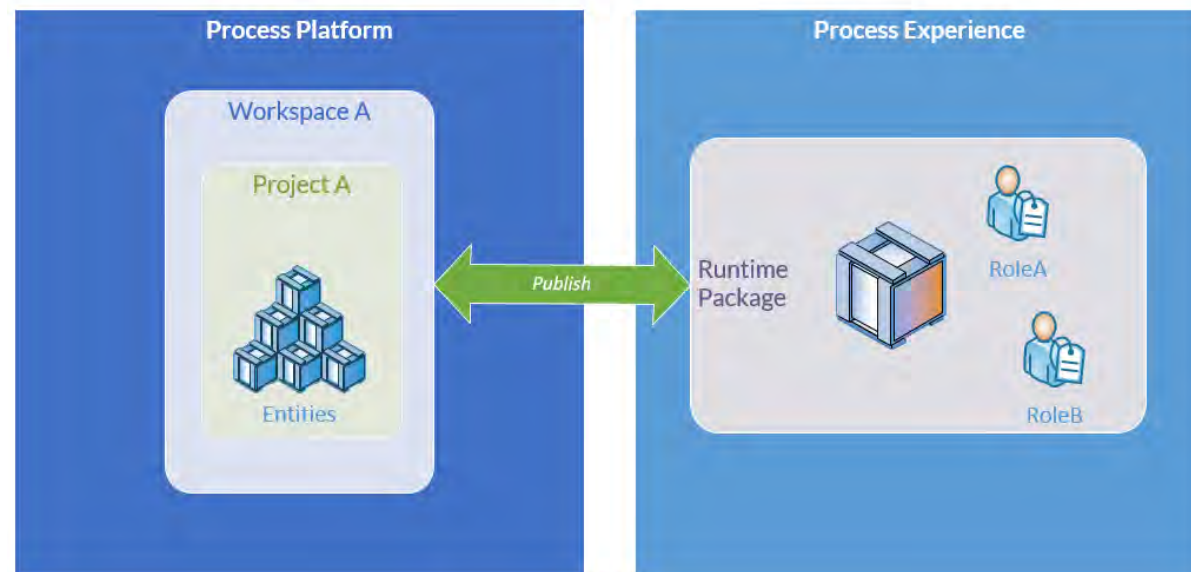


Chapter 4 - Topics

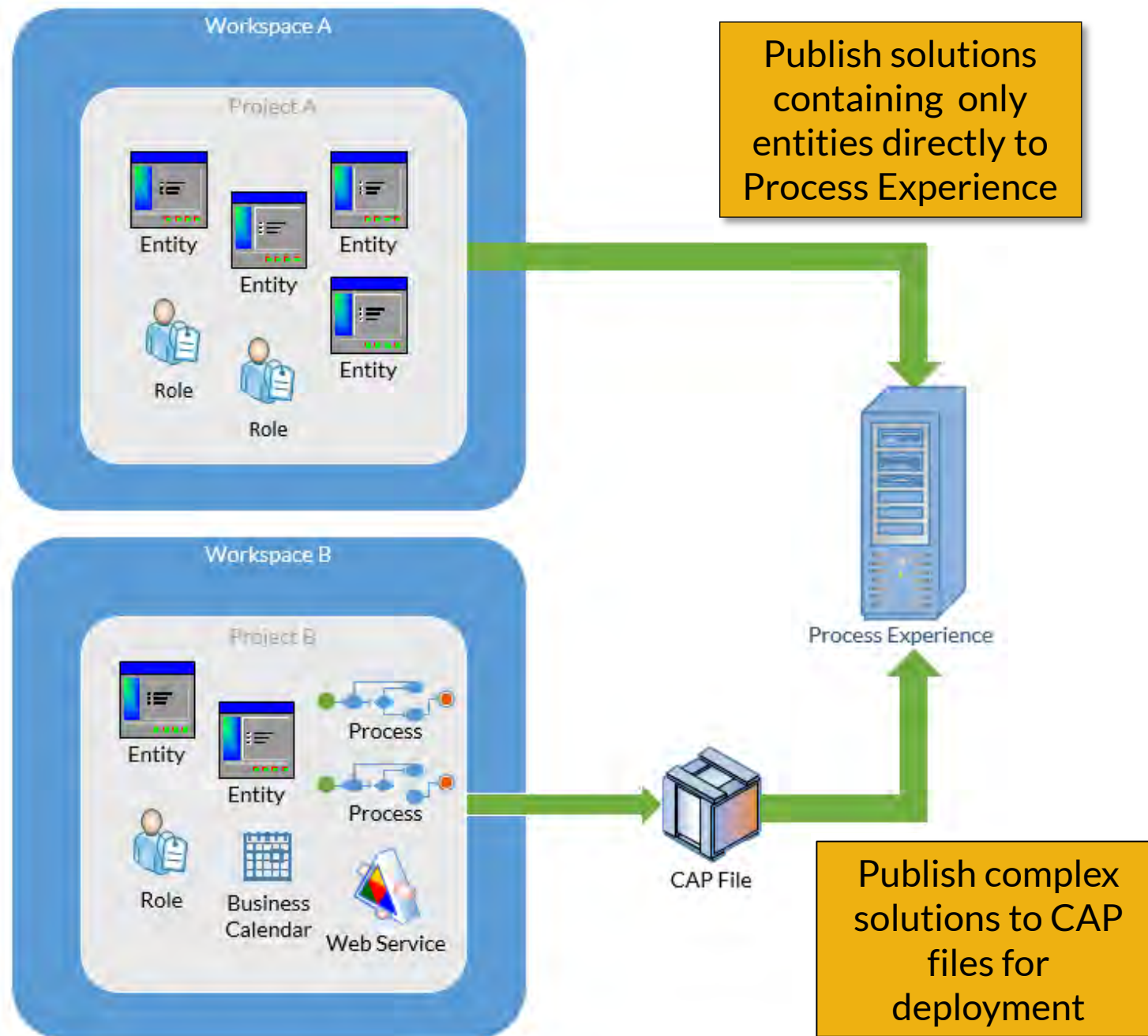
- Process Experience
- List Building Block
- Action Bar Building Block
- Publishing to Process Experience
- Configuring Solution Security
- Chapter 4 - Exercises

Publishing to Process Experience

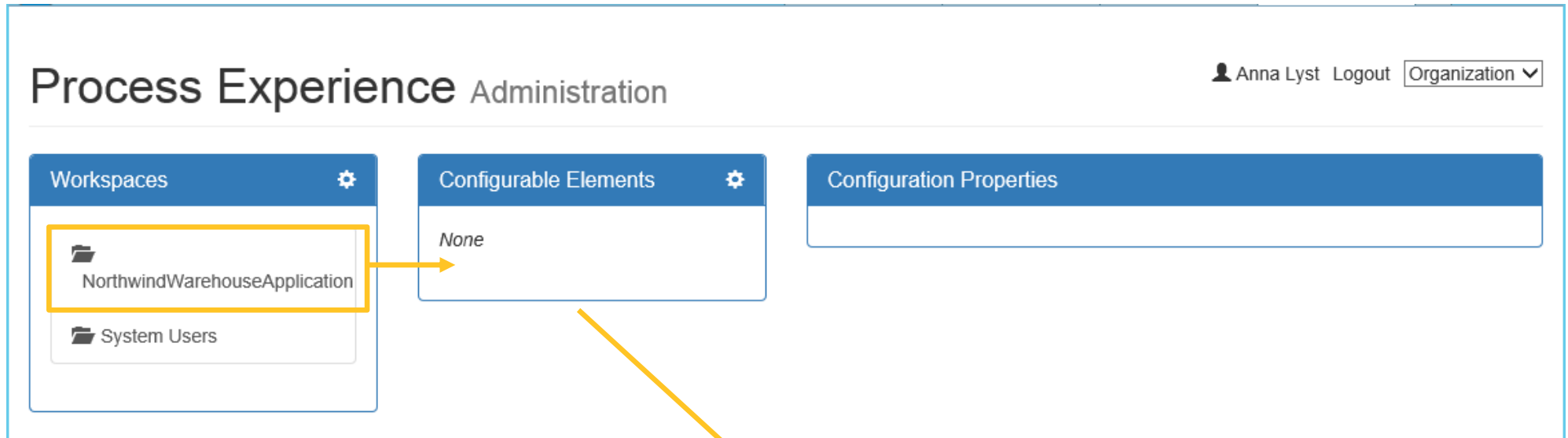
- Publishing a Solution generates runtime code from development code
- A solution must be published before it can be executed
- Publishing is easier in Process Platform v16
 - Direct publish to Process Experience
 - Less dependency on CAP* files
 - *Cordys Application Package



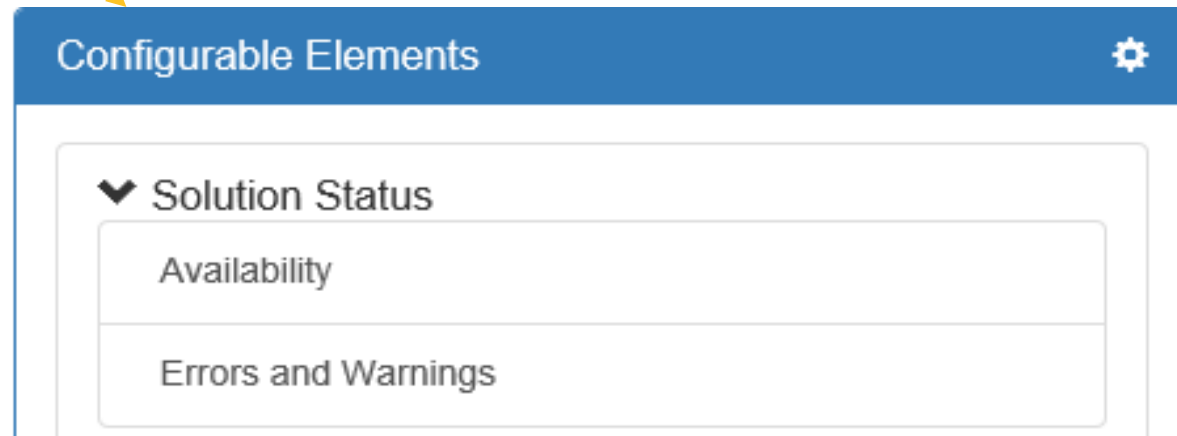
Publishing and CAP Files



Process Experience Administration



- Before a solution can be executed, it must be configured in Process Experience Administration
 - Assign roles to solutions
 - Map roles to users
 - Enable solutions and level of use



Chapter 4 - Topics

- Process Experience
- List Building Block
- Action Bar Building Block
- Publishing to Process Experience
- **Configuring Solution Security**
- Chapter 4 - Exercises

Configuring Solution Security

- Administer Solution
 - User roles able to use the Administration Console
- Build Solution
 - User roles able to modify the definition of the deployed solution
- Include Solution
 - Determines the interaction between solutions
- Manage Solution (Security):
 - Determine which users are able to manage (security) configuration by role
- Use Solution:
 - Determine which users are able to use solution by user role

List and Layout Security

- Worklist Security
 - User roles able to access each solution worklist
- Layout Security
 - User roles able to access each home page layout
- Entities:
 - User roles able to access each Entity
- Solution Variables
 - Set value of solution variables

Default Entity Roles

- Entity Runtime Administrator
 - User with access to administer deployed entity solution
- Entity Runtime Developer
 - User with access to develop and build entity solutions
- Entity Runtime User
 - User with access to work on entity solution

URLs, User IDs and Passwords for this class

- Windows Log In - **admin** **opentext**
- Process Platform - **analyst** **opentext**
 student **opentext**
 procadmin **opentext**
- SQL Server **sa** **opentext**
- Process Platform User Start Page URL:
<http://localhost:81/home/Warehouse/>
- Process Experience URL:
<http://localhost:81/home/Warehouse/app/processExperience/web/perform/>
- Process Experience Administration URL:
<http://localhost:81/home/Warehouse/app/admin/web/config/>

Chapter 4 - Topics

- Process Experience
- List Building Block
- Action Bar Building Block
- Publishing to Process Experience
- Configuring Solution Security
- Chapter 4 - Exercises (~50 min)

Chapter 4 - Summary

- Process Experience
- List Building Block
- Action Bar Building Block
- Publishing to Process Experience
- Configuring Solution Security

- Chapter 4 - Exercises

Chapter 5 - Process Experience User Interface: Forms and Layouts

Chapter 5 - Topics

- Forms
- Forms Exercises
- Layouts
- Homepage Layouts
- Discussion Building Block
- Layouts Exercises
- Chapter 5 - Exercises

Form Building Block

- Decorative-type building block
- Used to create, view and edit entity instances (“items”)
 - Create new instances - must use a Form named “Create”
 - View / Modify instances - use a Form named “Default”
- Create forms are automatically added to Create New button
- Default forms are automatically used to modify instances
- Other forms may be added to Layouts which are attached to lifecycle stages and actions

Creating a Form Building Block

- Display name used for easy recognition
- Name is internal name
 - “Create” for new instances
 - “Default” for viewing / editing instances
- Description is optional and arbitrary
- UI is prepared when configured

Form Details

Display Name

Name

UntitledForm

Description

UntitledForm

Form Configuration

The screenshot shows the 'Create - Form+' window in OpenText. It is divided into two main sections: 'Components' on the left and 'Presentation' on the right. The 'Components' section has a 'Properties' tab showing a tree view of form fields: Identity (Id, ItemId), Properties (Company, Contact, Contact Title, Address, City), and Other (Container, Stack Container, Tab Container). The 'Presentation' section has an 'Align' toolbar and a visual representation of the form. A yellow box labeled 'Properties to add to Form as fields' points to the 'Properties' tree. Another yellow box labeled 'Visual representation of Form' points to the central canvas. A third yellow box labeled 'Attributes of fields' points to the 'Form Display Name' and font settings on the right. A fourth yellow box labeled 'Constructs: used to group fields and add graphics' points to the 'Other' section of the 'Components' tree.

Components

Properties

- Identity
 - Id
 - ItemId
- Properties
 - Company
 - Contact
 - Contact Title
 - Address
 - City
- Other
 - Container
 - Stack Container
 - Tab Container

Presentation

Align

Form Display Name:
Create Customer

- Default Text Font
- Default Label Font
- Background

Annotations:

- Properties to add to Form as fields
- Visual representation of Form
- Attributes of fields
- Constructs: used to group fields and add graphics

Types of Constructs

- Container
 - Groups fields/components in a titled box
- Tab Container
 - Groups fields/containers into tabbed panes
- Horizontal Line
 - Add a decorative border
- Image
 - Insert a graphic file
- Text
 - Insert read-only, static text

Types of Constructs

The diagram illustrates a web form with three main sections. On the left, a vertical column contains three fields: 'Order Date' (a date input), 'Required Date' (a date input), and 'Employee' (a dropdown menu with 'N/A' selected). On the right, a 'Tabbed Container' is shown with three tabs: 'Customer' (active), 'Shipping Info', and 'Items'. The 'Customer' tab contains a search bar with a magnifying glass and a plus icon, followed by input fields for 'Company', 'Contact', 'City', 'Country', and 'Phone'. Three yellow callout boxes with arrows point to specific elements: 'Property (Date type)' points to the 'Required Date' field; 'Property (Enumerated Integer type)' points to the 'Employee' dropdown; and 'Tabbed Container' points to the 'Customer' tab.

Property (Date type)

Property (Enumerated Integer type)

Tabbed Container

Order Number

Order Date

Required Date

Employee

N/A

Customer X

Shipping Info X

Items X

Company

Contact

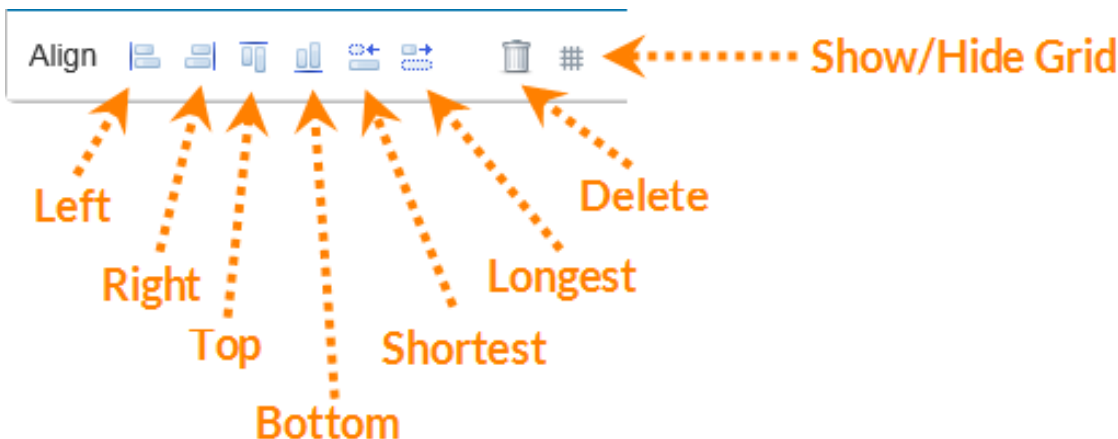
City

Country

Phone

Alignment and Attributes

- Selected fields may be aligned
 - Left, right, center, top, bottom, shortest, longest



- Field properties to be configured
 - **Presentation:** type of field displayed to user (drop-down, checkbox, list, radio buttons, etc.)
 - **Text and Label font:** size, color, style
 - **Required**
 - **Read Only**
 - **Show label:** show a label over the field
 - **Category:** arbitrary name to group related fields

Forms and Relationships

- Relationships may be included and presented in a Form Configuration
 - Drag the Relationship from the components list into the Form
 - A “To One” relationship allows user to:
 - Create new ad hoc instances
 - Browse and link existing instances
 - Clear (sever link between) related instances
 - Delete a related instance
 - “To Many” relationships allow users to add several items
- Repeating Group Container
 - Special container
 - Automatically created when you drag a “To Many” relationship to the form
 - Captures several items from a To Many relationship

Functions Available for Relationships in Forms

- **Create**
 - Create a new instance of a related item from within the primary item (default for a “Parent-child” relationship)
- **Browse**
 - Browse through a set of existing related items and attach one to the primary item (default for a “To One” relationship)
- **Clear**
 - Disconnect a related item from the primary item and keep the related item
- **Delete**
 - Disconnect a related item from the primary item and delete that related item

Sub-Forms

- Also called a “nested forms”
- Create a group of related fields on a sub-form
- Use the sub-forms to quickly create new Forms
- Changing fields in a sub-form automatically propagates the change to all forms that use the sub-form

Chapter 5 - Topics

- Forms
- Forms Exercises (~70 min)
- Layouts
- Homepage Layouts
- Discussion Building Block
- Layouts Exercises
- Chapter 5 - Exercises

Chapter 5 - Topics

- Forms
- Forms Exercises
- **Layouts**
- Homepage Layouts
- Discussion Building Block
- Layouts Exercises
- Chapter 5 - Exercises

Layout Building Block

- Layouts support working with Entity Instances directly in Process Experience
 - After an Entity Instance has been created on a Create form
- A Layout is an arrangement of Panels that may contain Forms
- An Item Layout is used for specific Entity Instances
- A Homepage Layout is used for applications, tools, and navigation, not related to any entity
- Layout Types:
 - Preview - for display purposes only
 - Full - a separate page with full edit capabilities
- You must create at least one item Layout that includes a Form (in a panel) in order to make the entity instance visible and/or editable in Process Experience

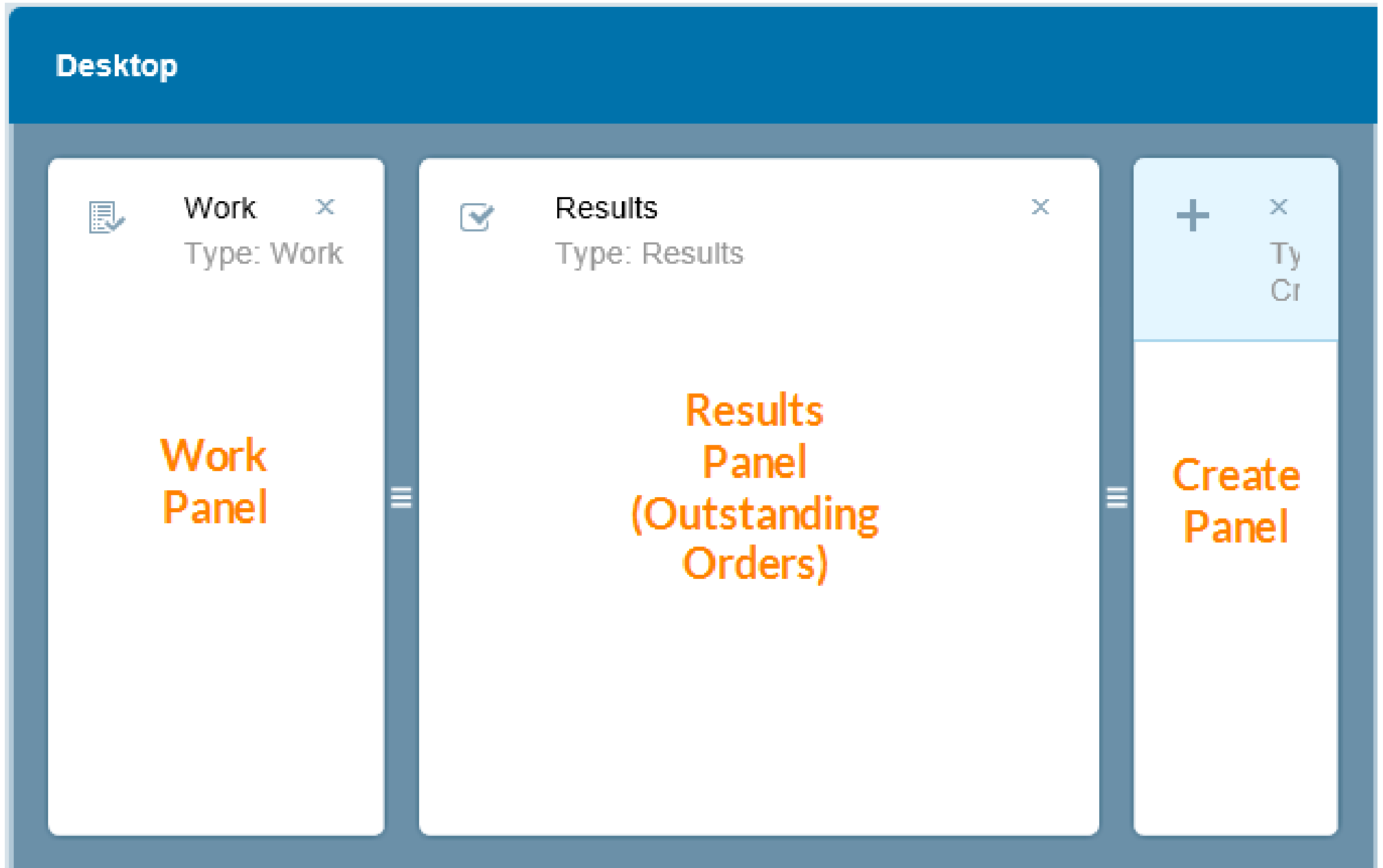
Types of Panels

- Actions
- Breadcrumbs
- Contents
- Create
- Discussions
- External UI
- Form
- Layout
- Lists
- Preview
- Results
- Web Content
- Work
- XForm
- iHub

Panel Properties

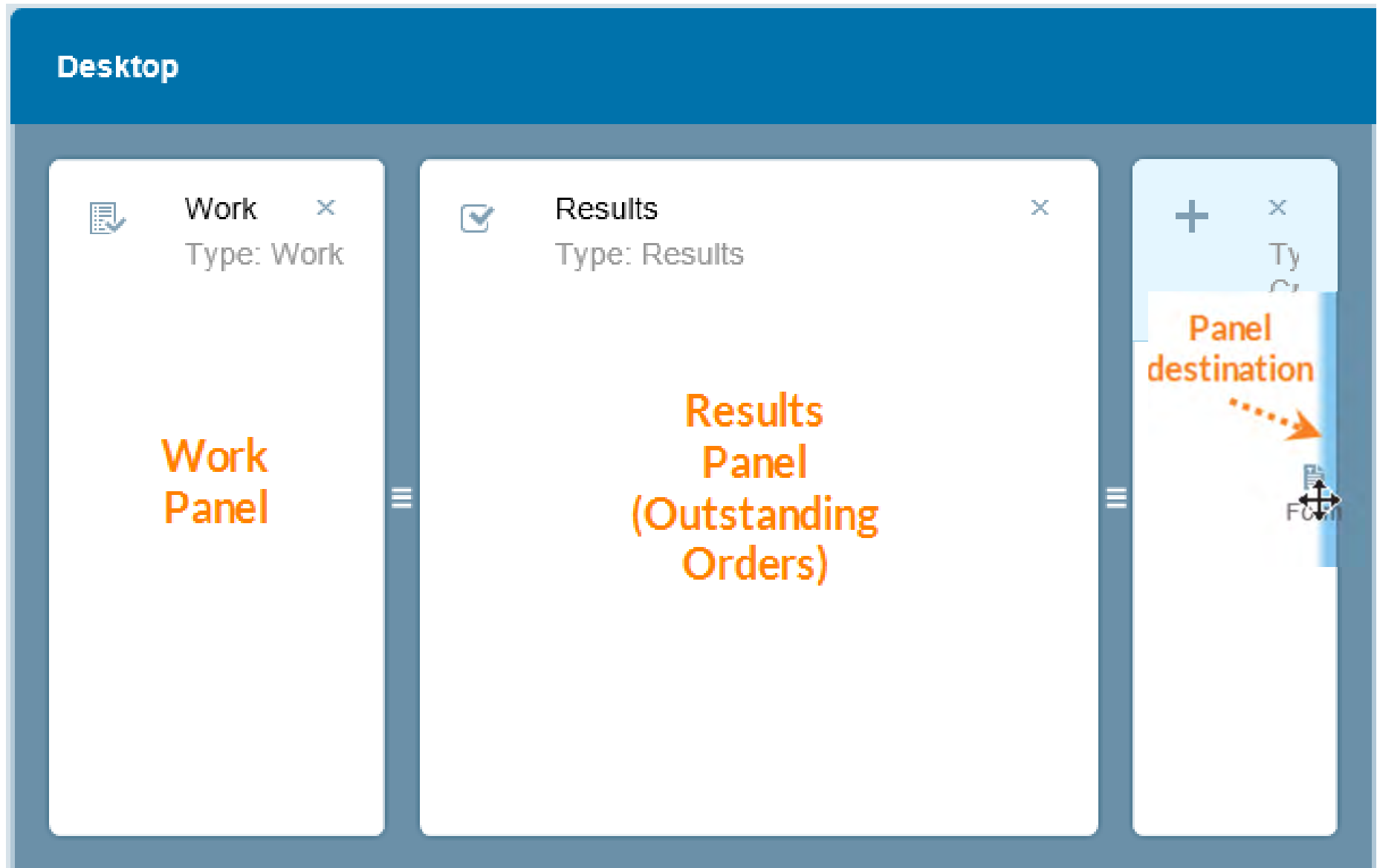
- **Name**
 - Display name to help identify the panel
- **Element Name**
 - Internal (unique) name for the panel
- **Description**
 - Optional, arbitrary description
- **Chrome**
 - Specifications for how to display the Panel border and decorative dividers
 - **Full**: include header and borders on white background
 - **Container Only**: display just the container, no header or borders
 - **None**: no header or borders

Sample Layout



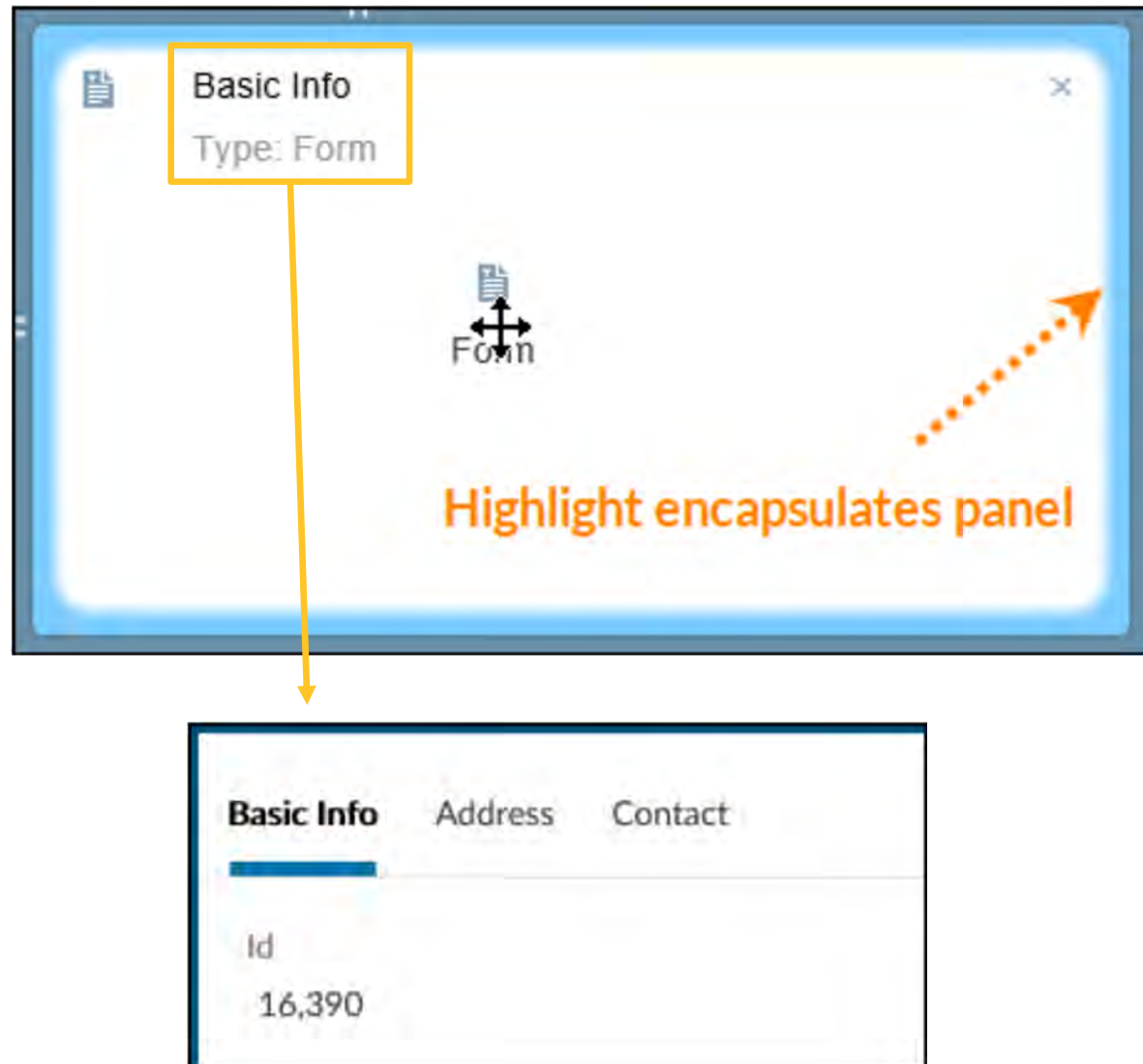
Destination of Panel when Dragged to Layout

- Blue Bar shows where Panel will be placed



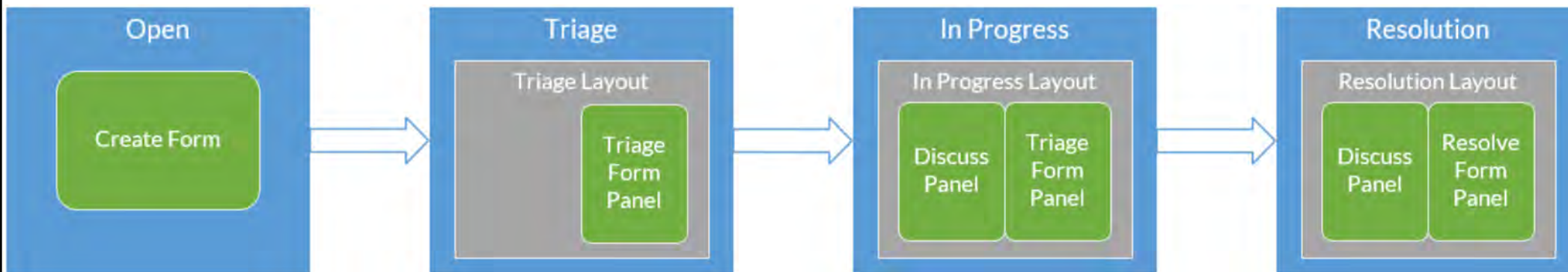
Tabbed Panels

- Drag one panel on top of another to create tabs
- Use Element Name property to set tab names
- Tip: Use Sub-Forms and Form Panel to create tabbed panes instead of tabbed container



Layouts and Lifecycle

- Lifecycle describes different stages of an Entity Instance (item)
- Each stage of the Lifecycle may use a different Layout
- Useful for distributing work amongst teams (different roles can access an item at different stages)
- Lifecycle is covered in Chapter 7



Chapter 5 - Topics

- Forms
- Forms Exercises
- Layouts
- **Homepage Layouts**
- Discussion Building Block
- Layouts Exercises
- Chapter 5 - Exercises

Homepage Layout



- Special Layout with no connection to an Entity or an item
- Used exclusively as a Process Experience home page
- Use to launch tools, applications, etc.
- Built as a separate document in the Workspace (not a Building Block for an Entity)

Chapter 5 - Topics

- Forms
- Forms Exercises
- Layouts
- Homepage Layouts
- Discussion Building Block
- Layouts Exercises
- Chapter 5 - Exercises

Discussion Building Block

- Used for team members to share messages and collaborate on items
- Topics and replies are added to entity instances
- Discussion is pre-configured child entity
 - Contains properties: DiscussionNote, Display Organization
 - Properties should NEVER be modified/deleted
- Must create a Layout containing a Discussion panel to access a Discussion

Chapter 5 - Topics

- Forms
- Forms Exercises
- Layouts (~20 min)
- Homepage Layouts
- Discussion Building Block
- Layouts Exercises
- Chapter 5 - Exercises (~1:15)

Chapter 5 - Summary

- Forms
- Forms Exercises
- Layouts
- Homepage Layouts
- Discussion Building Block
- Layout Exercises
- Chapter 5 - Exercises

Chapter 6 - Rules and Security

Chapter 6 - Topics

- Rule Building Block
- Expression Language for Rules
- Security Building Block
- History Building Block
- Chapter 6 - Exercises

Rule Building Block

- Three parts to a Rule
 - Trigger (When): what causes the rule to fire?
 - Condition (If): on what condition(s) will the rule be executed?
 - Action (Then): what does the rule do?
- Example:
 - Trigger: a new item is created
 - Condition: if the order total is more than \$300...
 - Action: set the discount to 10%

Rule Configuration Modes

- Basic Mode

- Use rule building tools

Rule Properties

When:

A property changes

Basic **Advanced**

If of the following are true

Then:

Disable

Trigger:
"When"

Condition:
"If"

Action:
"Then"

- Advanced Mode

- Use expression language

Basic **Advanced**

item.Identity.Id is null && item.Properties.Name is not null

Then:

Error

Identity is invalid

Trigger (Event) Types

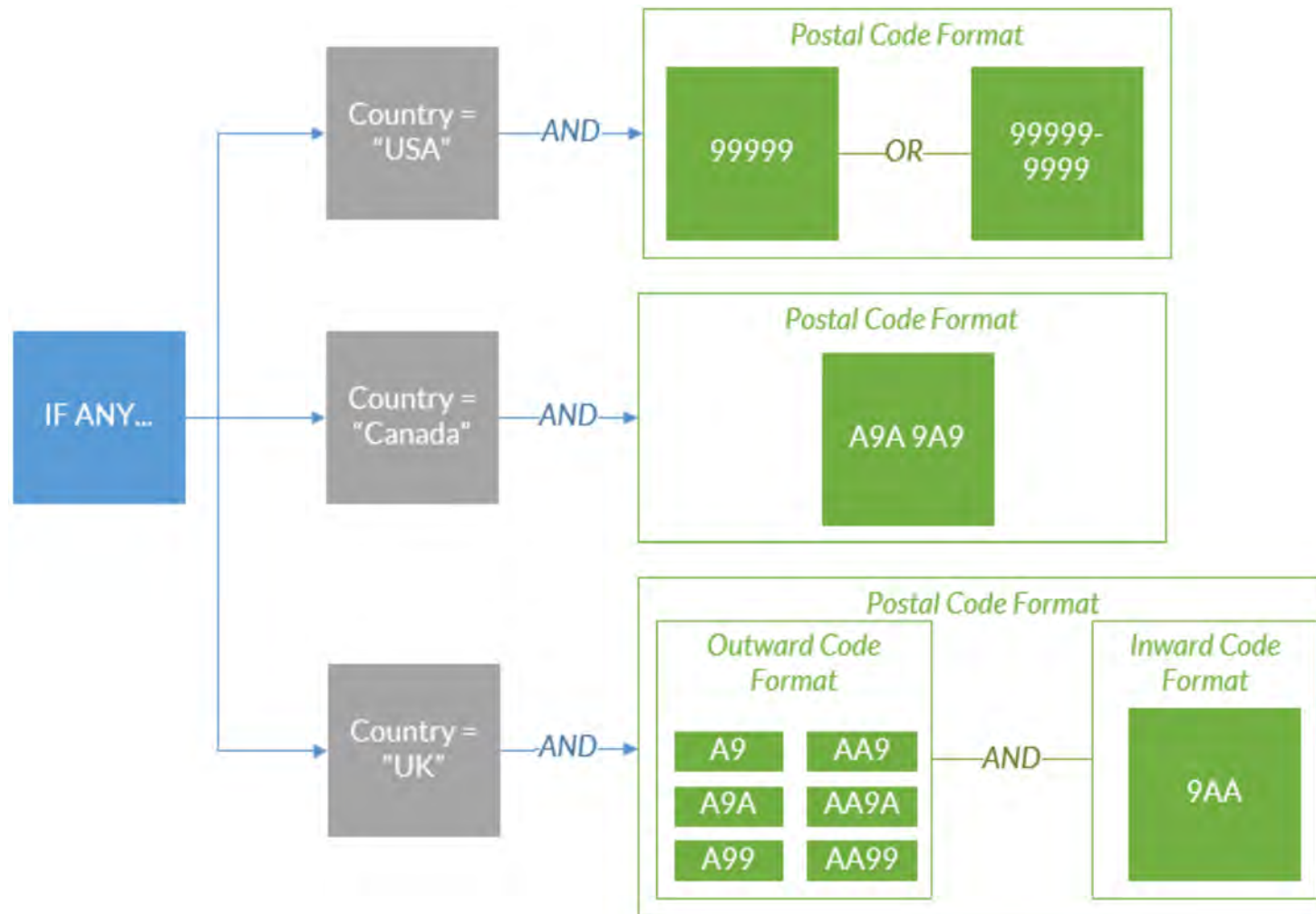
- A property changes value
 - When a specified property in an item changes value, normally in a Form
- Action is triggered
 - A user clicks a button added to Action Bar
- An Entity Instance is created
 - New item is added
- An Entity Instance is deleted
 - Item is deleted

Conditions

- Conditions built from entity properties
 - Inclusive: ALL conditions must be true
 - Exclusive: ANY condition may be true
- Rule builder sensitive to property types
 - Integer properties can use greater/less than operators
 - Date properties can use before/after operators
- A rule may have many conditions

Nested Conditions

- Condition(s) inside of a condition
 - May be inclusive or exclusive
 - Example: postal/zip codes

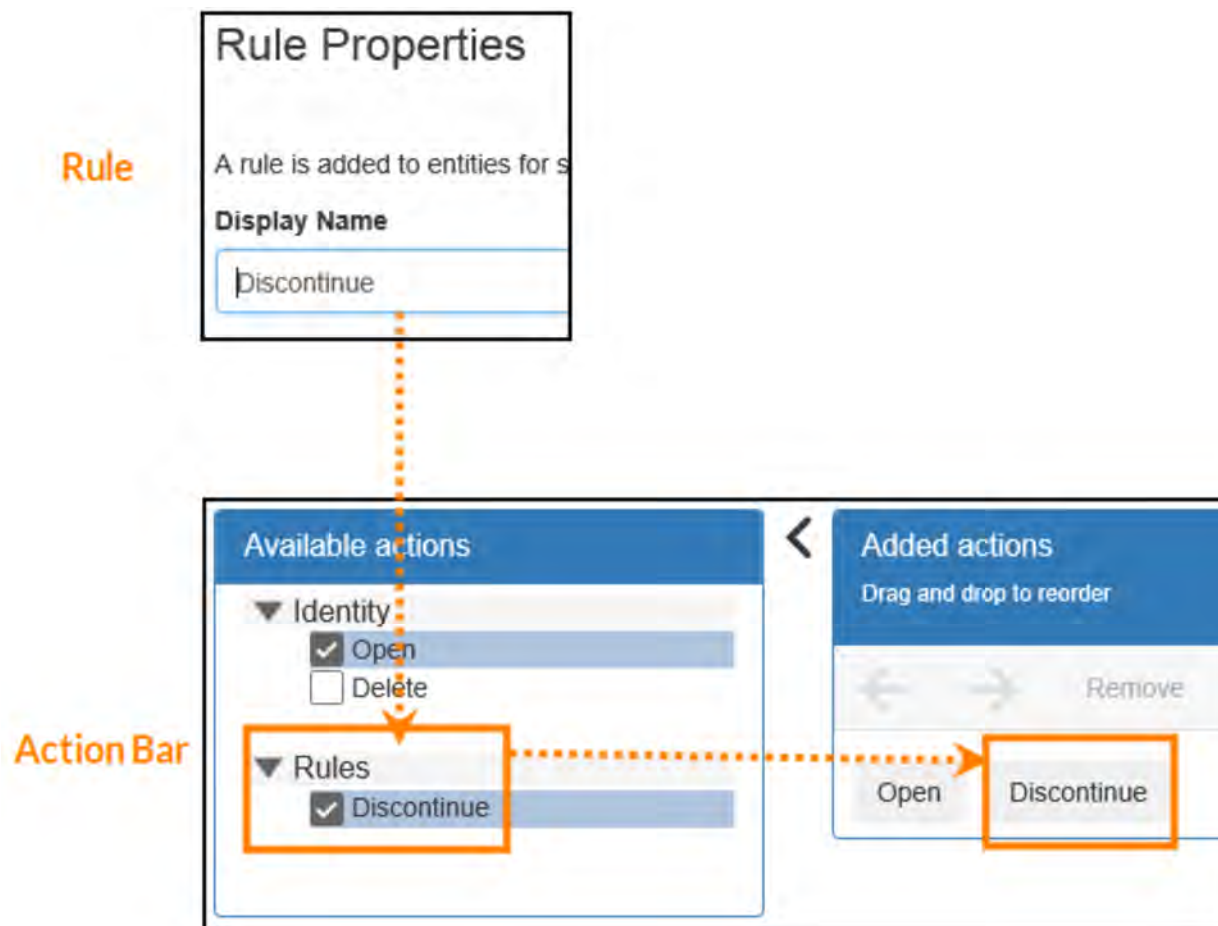


Actions

- Warn
 - Present message to user in Process Experience
- Error
 - Prevent user from making changes/saving
- Set
 - Set a value for a property
- Hide/Show
 - Hide or show a field or category of fields
- Disable
 - Lock ('gray out') a field or category of fields
- Start Process
 - Start a Business Process Model (built in Process Platform)

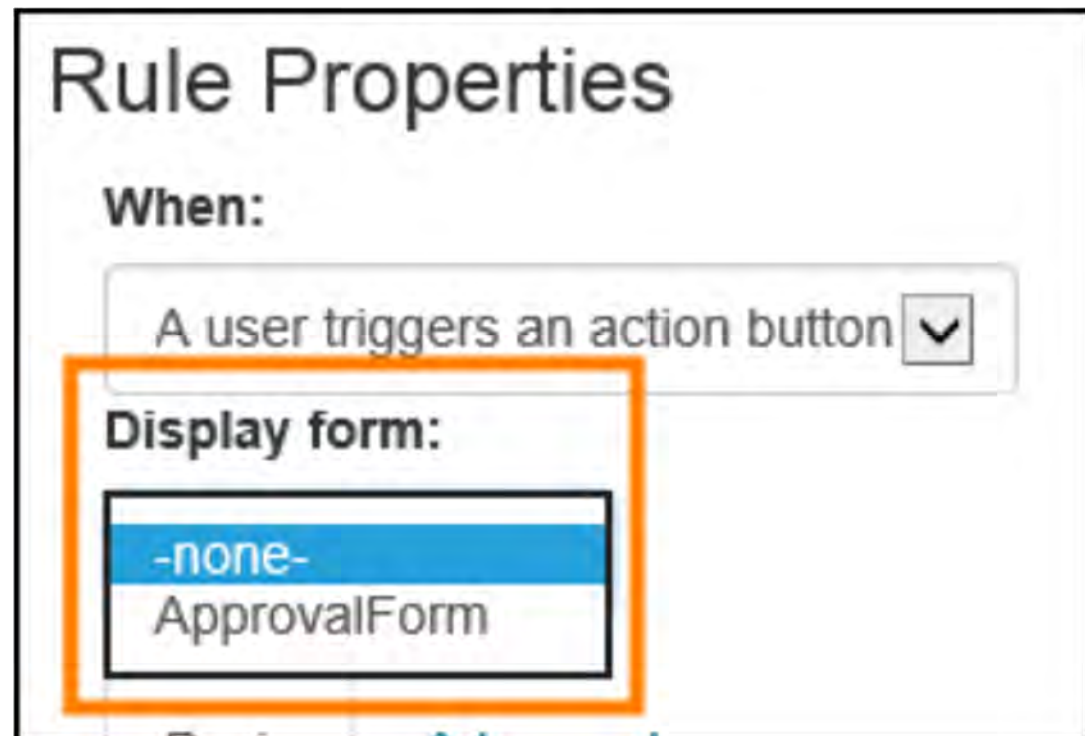
Dynamic Actions

- Dynamic actions on Action Bar are Rules
 - Set trigger to “User triggers action button”
 - Display name of Rule → text on button
 - Action of Rule → button function



Display Form

- Show a Form when a Rule is triggered
- Build the Form in an Entity
- Set the Display Form property to Form name
- Examples:
 - Approve/Reject
 - Reason
 - Yes/No/Cancel
 - User info



The screenshot shows a 'Rule Properties' dialog box. Under the 'When:' section, there is a dropdown menu with the text 'A user triggers an action button' and a downward arrow. Below this, the 'Display form:' section has a dropdown menu. This menu is highlighted with an orange border and shows two options: '-none-' (highlighted in blue) and 'ApprovalForm'.

Chapter 6 - Topics

- Rule Building Block
 - Expression Language for Rules
 - Security Building Block
 - History Building Block
-
- Chapter 6 - Exercises

Expression Language

- Development language for complex rules
- Logical operators (e.g., ||, &&, true, false, ==, !=, etc.)
- Mathematical operators (e.g., <, >, +, -, *, /, mod, etc.)
- Some property-specific functions:
 - substring(sVal, iStart, iEnd)
 - length(sVal)
 - sVal in list(val1, val2, val3, etc.)

Keywords

- Used as Qualifiers in Expressions
- item
 - Represents the current instance of the entity
 - Usage:
 - `item.Properties.FirstName`
 - `item.Identity`
- system
 - Represents Process Platform system
- user
 - Represents the current user logged in

Tips for Expression Language

1. Build some rules in Basic Mode, then switch to Advanced to use expression language.
2. Rules built in Basic Mode are still displayed in expression language in the entity editor.
3. Use expression language in system-generated Title building blocks.
4. Entities can be saved – but not published – if the rule logic is invalid.

Chapter 6 - Topics

- Rule Building Block
- Expression Language for Rules
- **Security Building Block**
- History Building Block
- Chapter 6 - Exercises

Security Building Block

- Security is either added or not
- Security restricts access to Entity Instances
 - Access is role-based
 - Roles must be mapped to users
- Permission types:
 - Create
 - Read/View
 - Update
 - Delete

Security Permissions Example

Permissions			
Name		<input type="checkbox"/> Read	<input type="checkbox"/> Update
Entity Product	Entity Instances	<input type="checkbox"/> View	
			<input type="checkbox"/> Other
			<input type="checkbox"/> Create
			<input type="checkbox"/> Delete
Properties			
ProductName	Property building blocks	<input type="checkbox"/> Read	<input type="checkbox"/> Update
Category		<input type="checkbox"/> Read	<input type="checkbox"/> Update
QuantityPerUnit		<input type="checkbox"/> Read	<input type="checkbox"/> Update
UnitPrice		<input type="checkbox"/> Read	<input type="checkbox"/> Update
UnitsInStock		<input type="checkbox"/> Read	<input type="checkbox"/> Update
UnitsOnOrder		<input type="checkbox"/> Read	<input type="checkbox"/> Update
ReorderLevel		<input type="checkbox"/> Read	<input type="checkbox"/> Update
Discontinued		<input type="checkbox"/> Read	<input type="checkbox"/> Update
Title	Other building blocks		<input type="checkbox"/> Update

Chapter 6 - Topics

- Rule Building Block
- Expression Language for Rules
- Security Building Block
- **History Building Block**
- Chapter 6 - Exercises

History Building Block

- Adds an Audit History to Entity
- Audit History captures date, time, username for
 - New instances
 - Instance updates
 - Deleted instances
 - Access to instances (optional)
- Requires a Log document
 - History saved to log

Instance Deletion

- When an instance is deleted, you can:
 - Discard the instance history from the Log document
 - Retain the history
 - Add a note that the instance was deleted

The screenshot shows a web form titled "History Details". It contains a description: "This option is used to track all activity within an entity instance to maintain an audit trail." Below this are three sections: "Name" with a text input field containing "History"; "History Log" with a search input field containing "Use search to select History Log" and a magnifying glass icon; and a checkbox labeled "Record access events" which is unchecked. At the bottom, there is a section titled "On Deletion" which is highlighted with an orange border. This section contains a dropdown menu with three options: "Discard history" (which is selected and highlighted in blue), "Retain history", and "Only note deletion".

History Details

This option is used to track all activity within an entity instance to maintain an audit trail.

Name

History

History Log

Use search to select History Log

Add a History Log to the project to define a place where history information is to be recorded.

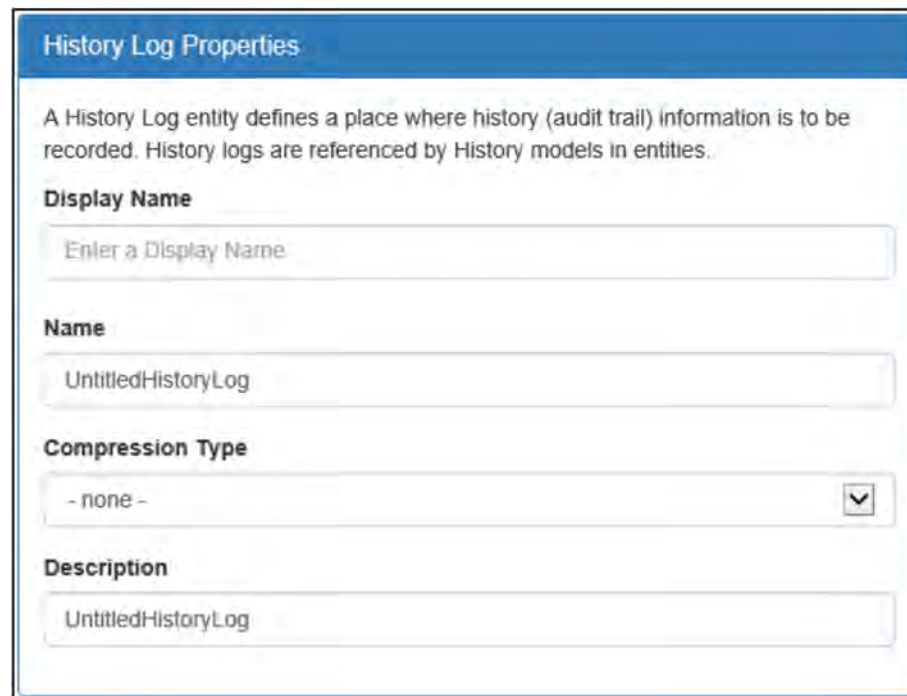
☐ Record access events

On Deletion

Discard history
Retain history
Only note deletion

History Log

- Additional document created in Process Platform
- Document may be compressed



The screenshot shows a dialog box titled "History Log Properties". It contains a descriptive paragraph, followed by four labeled input fields: "Display Name", "Name", "Compression Type", and "Description".

History Log Properties

A History Log entity defines a place where history (audit trail) information is to be recorded. History logs are referenced by History models in entities.

Display Name

Enter a Display Name

Name

UntitledHistoryLog

Compression Type

- none -

Description

UntitledHistoryLog

Chapter 6 - Topics

- Rule Building Block
- Expression Language for Rules
- Security Building Block
- History Building Block
- Chapter 6 - Exercises (1:10)

Chapter 6 - Summary

- Rule Building Block
- Expression Language for Rules
- Security Building Block
- History Building Block

- Chapter 6 - Exercises

Chapter 7 - Entity Lifecycle

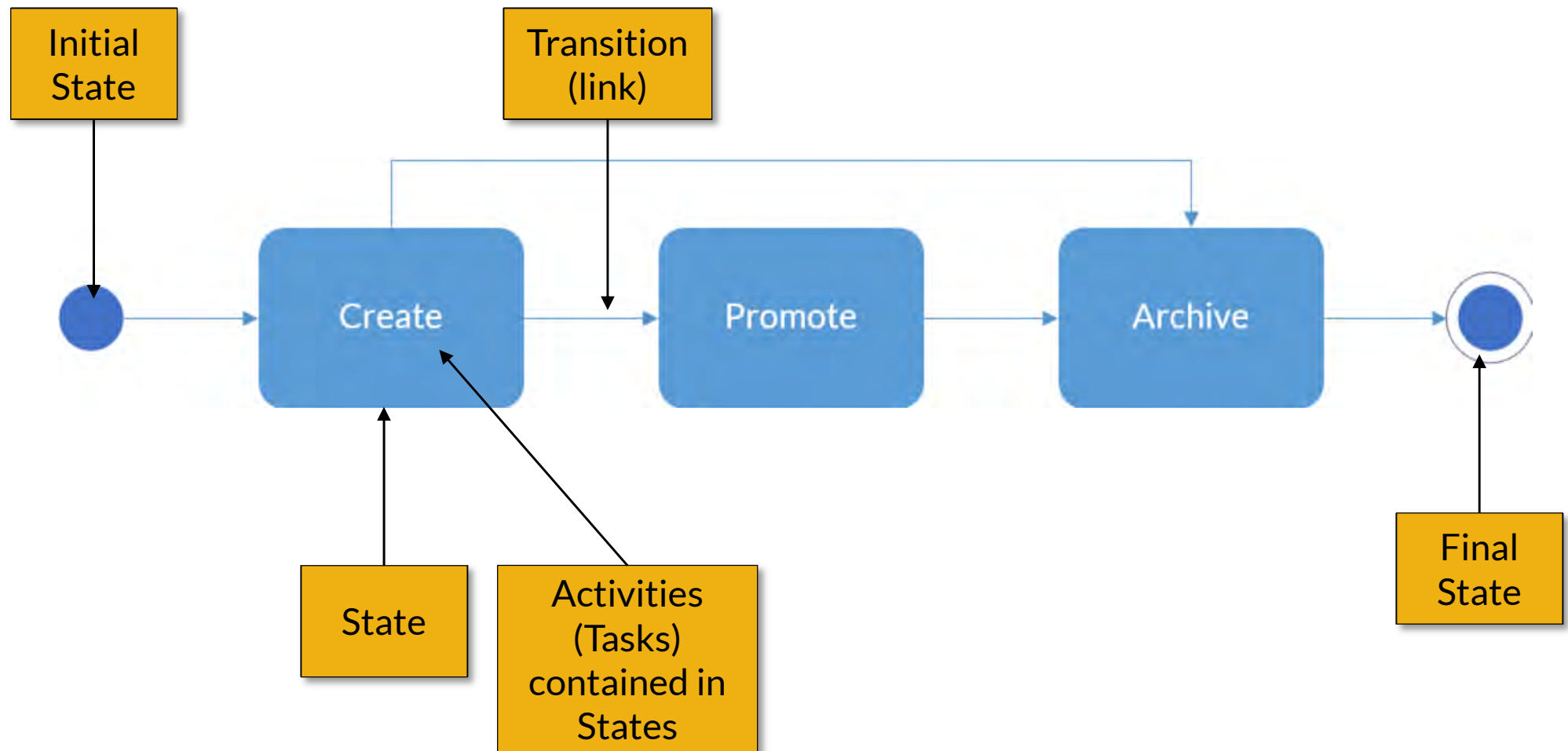
Chapter 7 - Topics

- Lifecycle Building Block
- Lifecycle Model Designer
- Chapter 7 - Exercises

Lifecycle

- Describes the evolution of an Entity Instance, from its creation to its disposition (e.g., archival, deletion)
- Defines the states of an Entity Instance
- Generates work (i.e., Tasks) for team members based on states
- Integrates entities with business processes
- May be nested (a Lifecycle in a Lifecycle)

Elements of a Lifecycle



Lifecycle Building Block

- Two parts:

1. Child Entity

- Task elements
- Connects to Inbox → Inbox captures Work items in Process Experience
- Contains additional building blocks (Layouts, Forms, etc.)

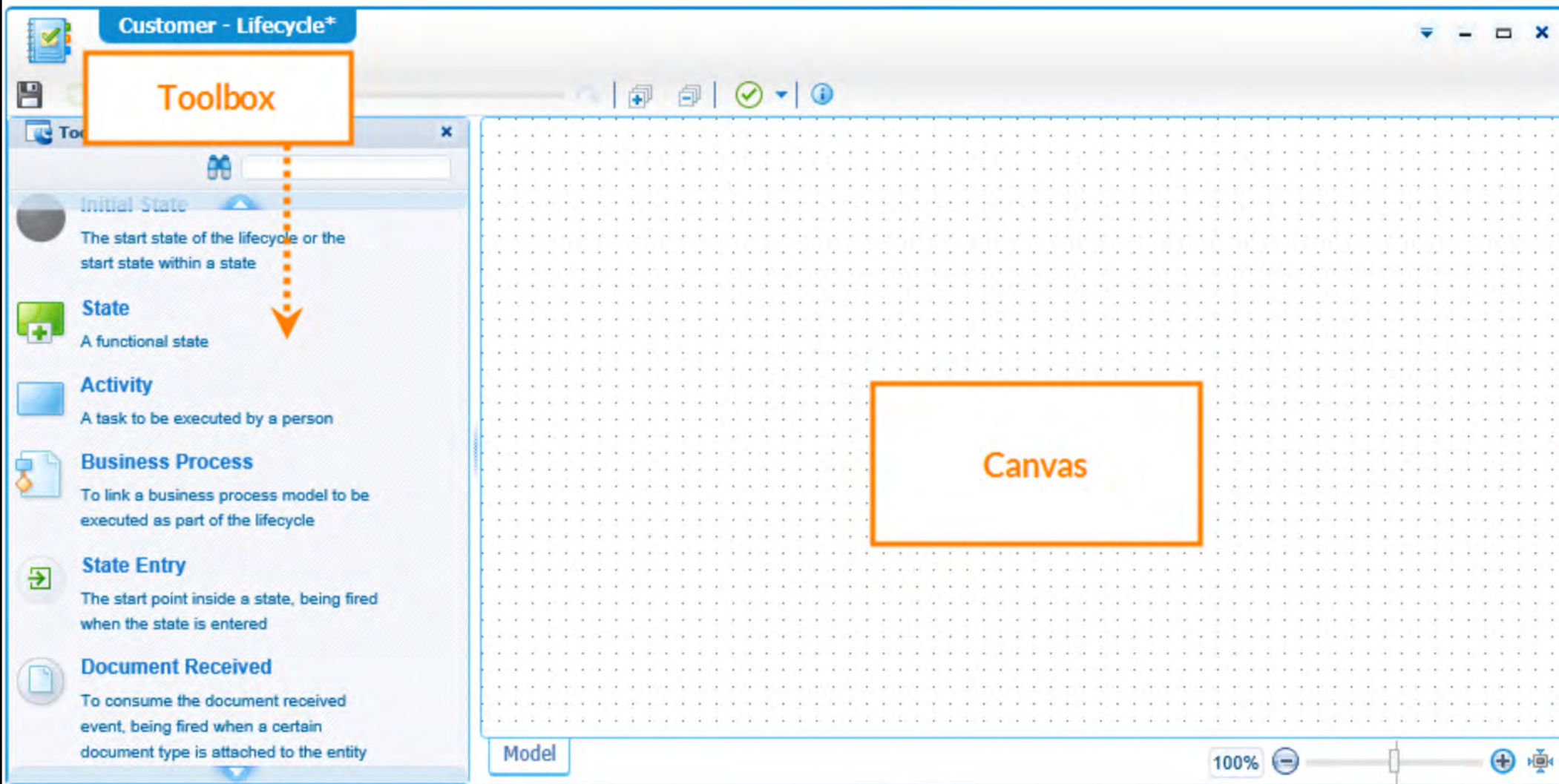
2. Lifecycle Model Diagram

- Created with Lifecycle Model Designer

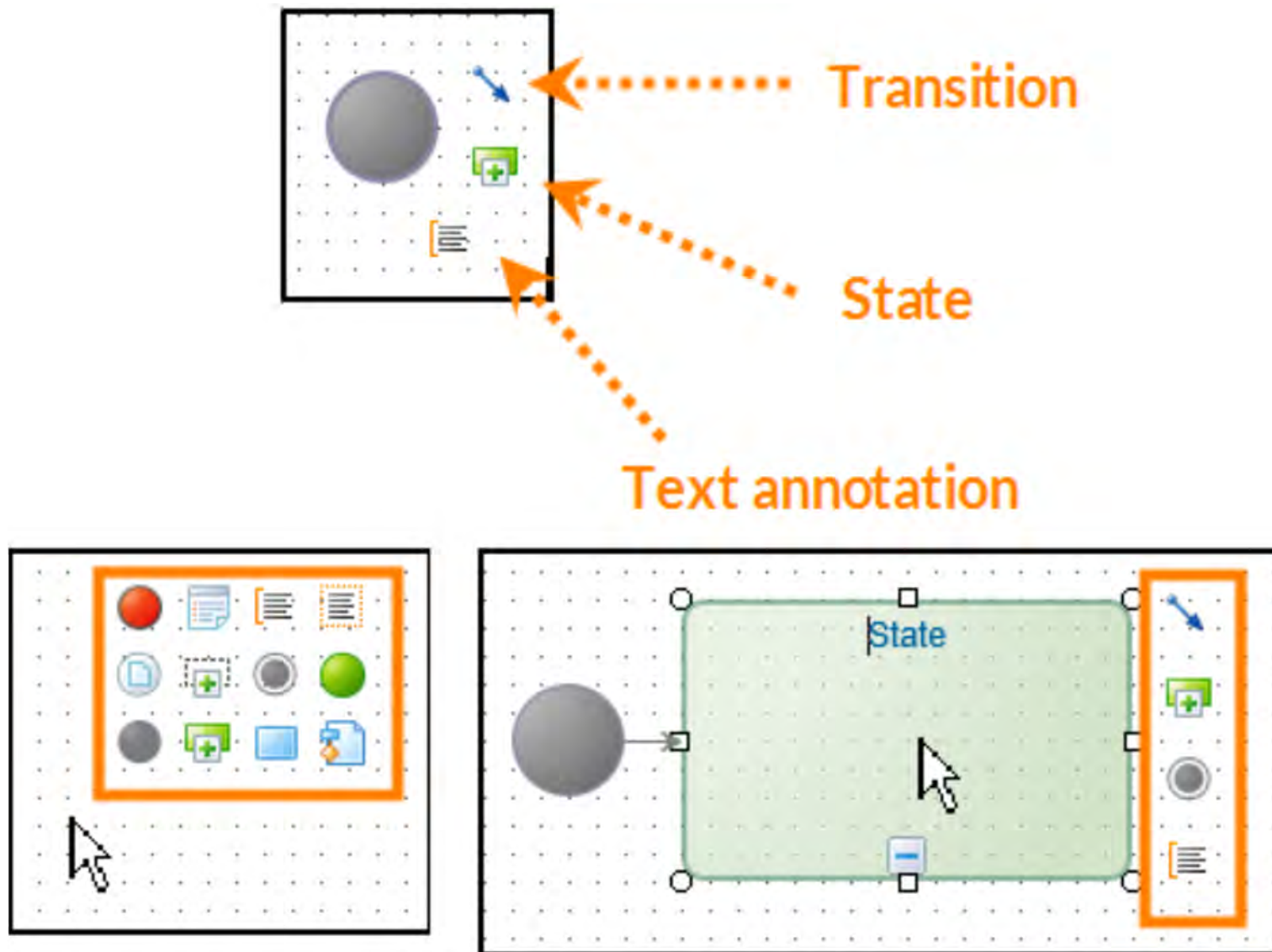
Chapter 7 - Topics

- Lifecycle Building Block
- Lifecycle Model Designer
- Chapter 7 - Exercises

Lifecycle Model Designer



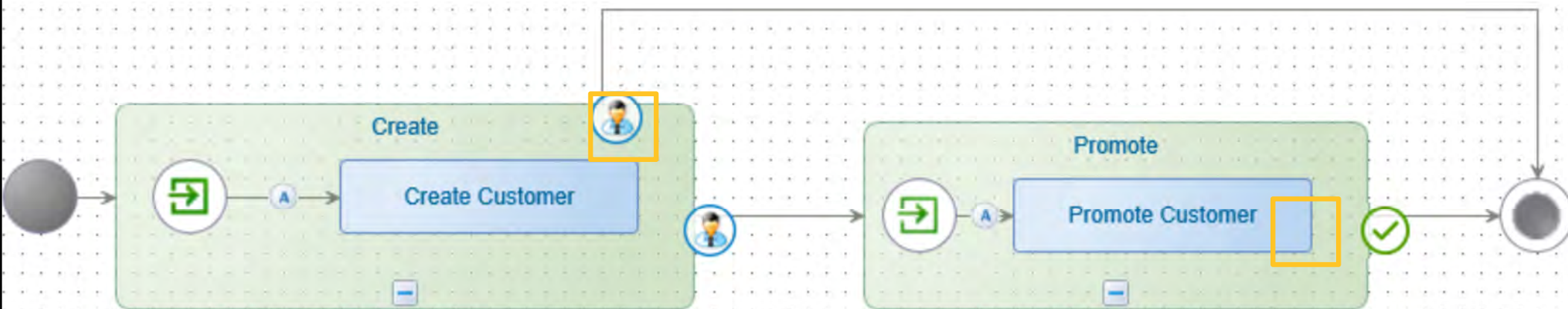
Constructs of Model Designer



Secondary Constructs / Transition Types

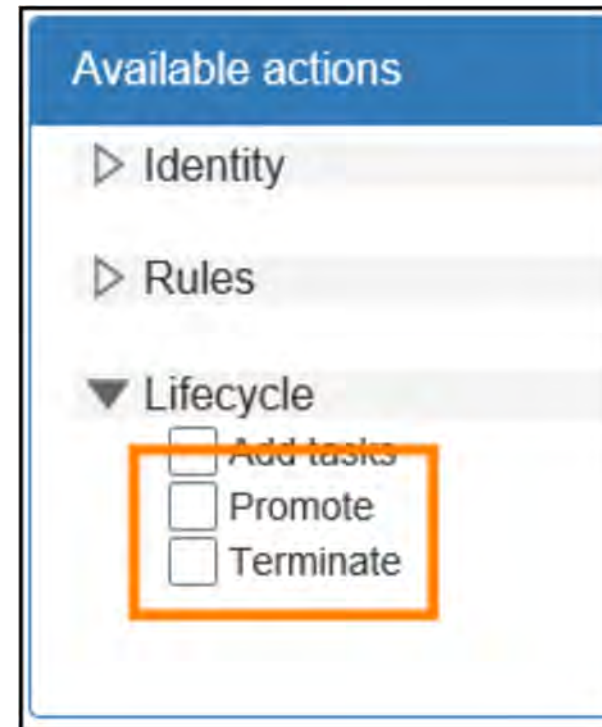
■ Transition Types

- Conditional: transition only if condition evaluates to true
- Activity Completed: transition automatically once activity complete
- User Event: transition only if user submits event (i.e., clicks button)



User Event Transitions

- Set event name on transitions of type User Event
- Event name becomes button on Process Experience
- Add button to Action Bar in parent entity



Layouts and States

- Layout may be added to activities in a state
- Each Layout may be different (different presentation for different teams (user roles))
- Layouts created in Lifecycle Child Entity



Chapter 7 - Topics

- Lifecycle Building Block
- Lifecycle Model Designer
- Chapter 7 - Exercises (~2:30)

Chapter 7 - Summary

- Lifecycle Building Block
- Lifecycle Model Designer
- Chapter 7 - Exercises

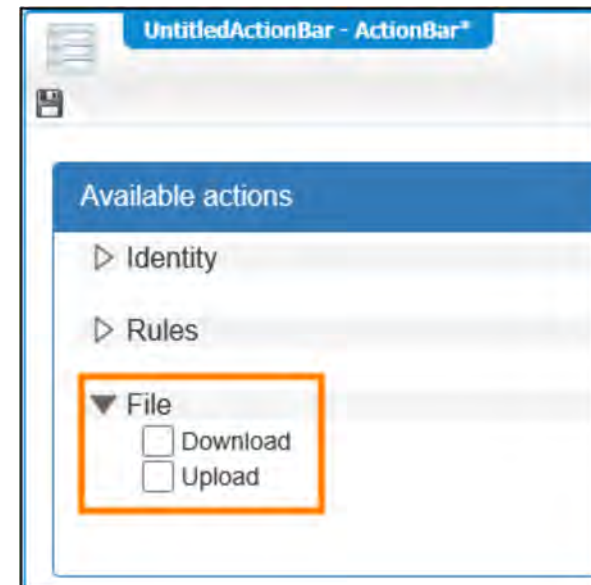
Chapter 8 - Advanced Features and Integration

Chapter 8 - Topics

- File Building Block
 - Content Building Block
 - Web Service Building Block
 - External Entities
-
- Chapter 8 - Exercises

File Building Block

- Attach a file to an Entity Instance
- Only ONE file permitted
- Files kept in document store:
 - Process Platform Database
 - OpenText Content Server
- File actions become available in Action Bar

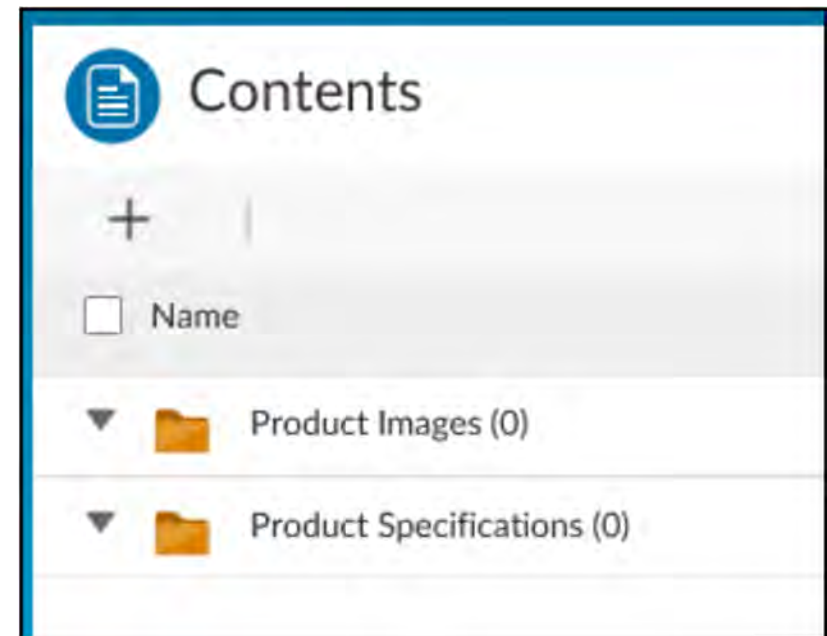


Chapter 8 - Topics

- File Building Block
 - **Content Building Block**
 - Web Service Building Block
 - External Entities
-
- Chapter 8 - Exercises

Content Building Block

- Add multiple files to an entity
- Content creates a child entity with File building block attached
- Display Organization helps categorize files in document store



Chapter 8 - Topics

- File Building Block
 - Content Building Block
 - **Web Service Building Block**
 - External Entities
-
- Chapter 8 - Exercises

Web Service Building Block

- Web Service building block generates Web Service wrapper for entity
- Available operations:
 - Read
 - Create
 - Update
 - Delete

Web Service Details

Namespace

<http://schemas/NorthwindWarehouseApplication/Product/operations>

Basic operations

☐ Create

☐ Read

☐ Update

☐ Delete

Web Services and Relationships

- To One:
 - Set, Clear operations
- To Many:
 - AddTo, Get, RemoveFrom operations
- Child:
 - Create, Get, Delete operations
- Parent:
 - Get operation

Operations on relationships

OrderLine

☐ Create

☐ Get

☐ Delete

CustomerOrder

☐ Set

☐ Clear

Chapter 8 - Topics

- File Building Block
- Content Building Block
- Web Service Building Block
- **External Entities**
- Chapter 8 - Exercises

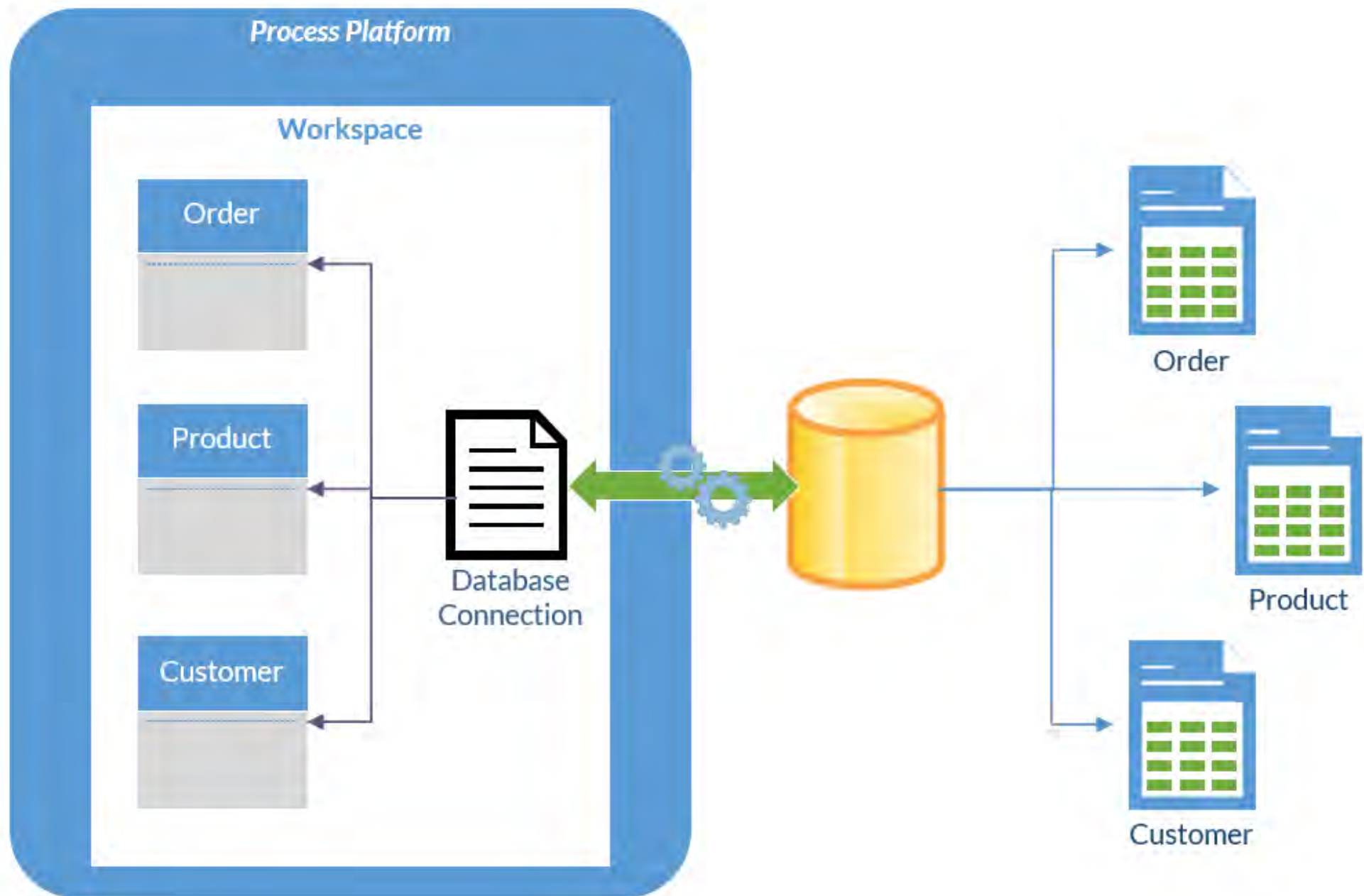
External Entities

- Create Entities from an existing database:
 - Database table
 - Process Component Library
 - MyInbox (Process Platform)
 - MBPM
 - Case360

Steps for Generating Entity

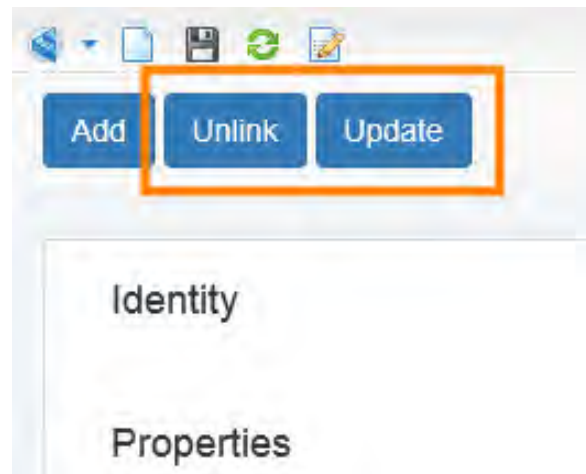
1. Establish a connection to source
 - Internal connection to Process Component Library, MyInbox
 - External connection to MBPM, Case360, database
2. Generate metadata from source
 - Create usable objects from connection
3. Generate entities from metadata objects

Steps for Generating Entity from Database



Tips for Generated Entities

- Entities are “linked” to source
 - Tip: database tables must be migrated to Process Experience
- Unlink entities from source to edit entities
- Update entities if source changes
- Not all column types can be imported



Chapter 8 - Topics

- File Building Block
- Content Building Block
- Web Service Building Block
- External Entities
- Chapter 8 - Exercises (optional)

Chapter 8 - Topics

- File Building Block
 - Content Building Block
 - Web Service Building Block
 - External Entities
-
- Chapter 8 - Exercises

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