



CUSTOM OBJECTS

PART 1 / 5

DEVELOPMENT & EXTENSIBILITY

IFS CLOUD – 21R1

AGENDA



1

**CONFIGURATION
CONCEPT
MAPPING**

2

**ENTITY
CONFIGURATIONS**

3

**CUSTOM
ATTRIBUTES**

4

**PROJECTION
CONFIGURATIONS**

5

**CUSTOM
ACTIONS /
COMMANDS**

6

**ADMINISTRATING
CONFIGURATIONS**



AGENDA



1

**CONFIGURATION
CONCEPT
MAPPING**

2

**ENTITY
CONFIGURATIONS**

3

**CUSTOM
ATTRIBUTES**

4

**PROJECTION
CONFIGURATIONS**

5

**CUSTOM
ACTIONS /
COMMANDS**

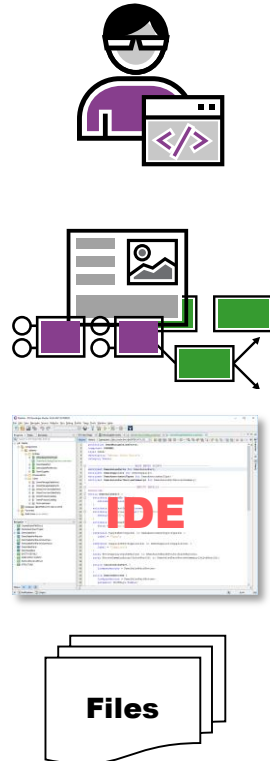
6

**ADMINISTRATING
CONFIGURATIONS**

TAILOR AND EXTEND CUSTOMER SOLUTION

CONCEPTS AND TERMINOLOGY

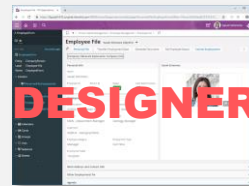
EXTEND INSIDE



**DELIVER
& INSTALL**

**EXPORT
TO CONTROL**

CONFIGURE

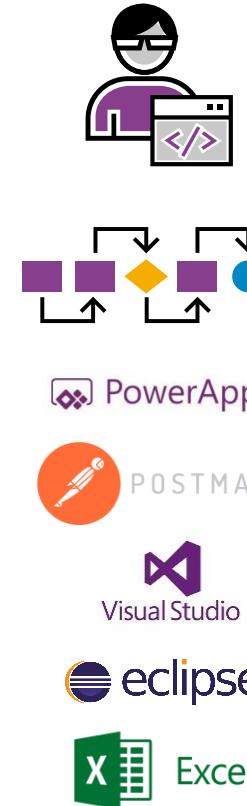


DESIGNER



CUSTOMER's ENVIRONMENTS

EXTEND OUTSIDE



USING APIs

CONCEPT MAPPING

IFS EE – IFS CLOUD

IFS EE/Apps10	Available in IFS Cloud	IFS Cloud	Upgraded
Custom Fields	Yes	Custom Attributes + Page Configuration	<ul style="list-style-type: none">• The attributes with definition and storage are upgraded• Layout needs to be redone• Assumes the pages in IFS Aurena are based on same data source as in IFS EE
Custom Logical Units	Yes	Custom Entities	Yes
Custom Page	Yes	Page Configurations	No (redo)
Custom Enumeration	Yes	Custom Enumeration	Yes
Custom Screen Layout + Page Properties	Yes	Aurena Page Designer	No (redo)
Custom Menu	Partly	Command + Custom Action	No (redo)
Custom Tabs	Yes	Projection Configurations + Aurena Page Designer	No (redo)

CONCEPT MAPPING

IFS EE – IFS CLOUD

IFS EE/Apps10	Available in IFS Cloud	IFS Cloud	Upgraded
Conditional Fields	No	Not planned	No
Information Cards	No	Not planned (Not valid for a browser-based application)	No - Deprecated
Custom Events	Yes	Custom Events	Yes
Event Actions	Yes	Event Actions	Yes (URL:s needs to be updated manually)
Application Configuration Packages	Yes	Application Configuration Packages	Yes

CONFIGURATION CONCEPTS

IN IFS CLOUD

- **Custom Attributes**
- **Entity Configurations**
- **Projection Configurations**
- **Custom Actions & Commands**
- **Application Configuration Packages**



CUSTOM OBJECTS

PART 2 / 5

DEVELOPMENT & EXTENSIBILITY

IFS CLOUD – 21R1

AGENDA



1

CONFIGURATION
CONCEPT
MAPPING

2

ENTITY
CONFIGURATIONS

3

CUSTOM
ATTRIBUTES

4

PROJECTION
CONFIGURATIONS

5

CUSTOM
ACTIONS /
COMMANDS

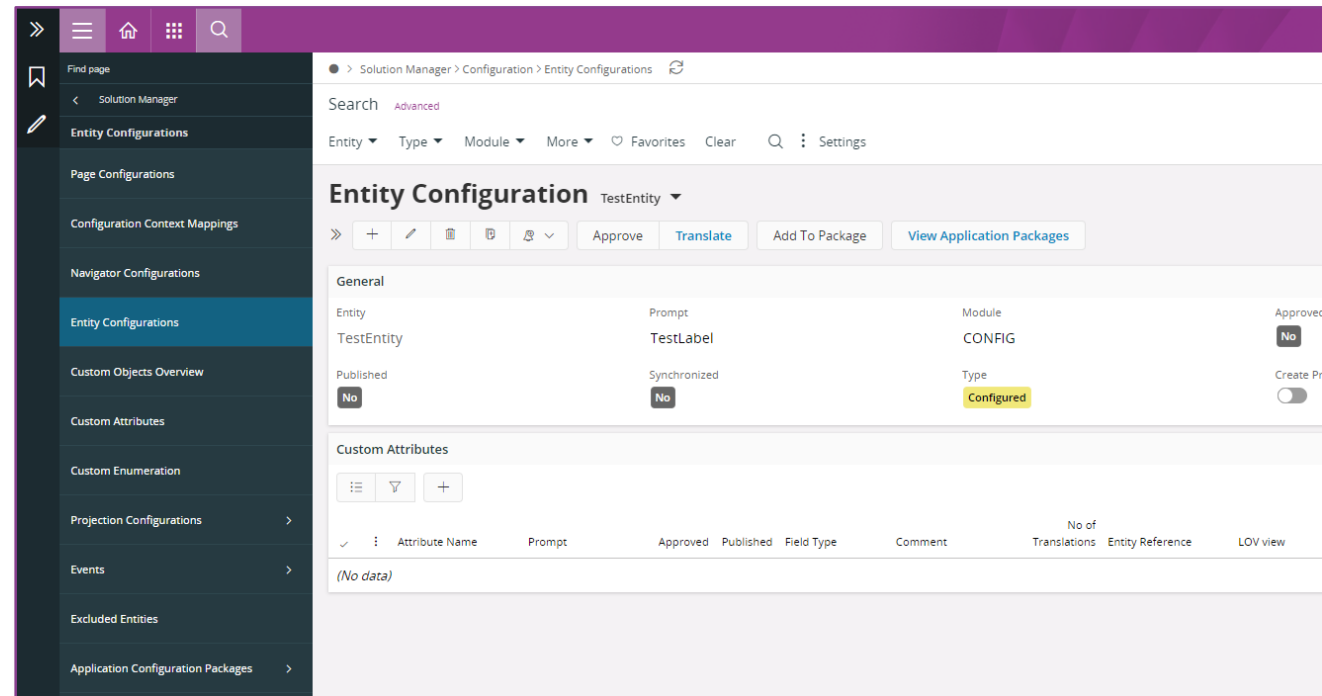
6

ADMINISTRATING
CONFIGURATIONS

ENTITY CONFIGURATIONS

CREATE NEW CUSTOM ENTITIES

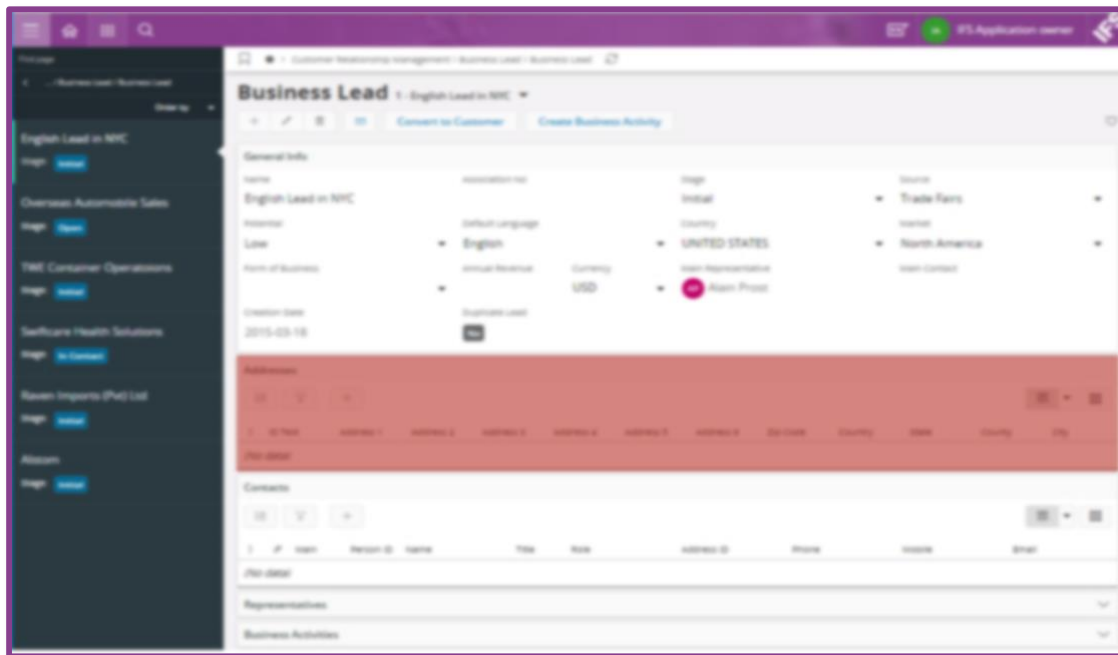
- Entity Configurations page is used to configure Entities in IFS Cloud.
- You can use Entity Configurations page to;
 - Create new Custom Entities
 - Configure existing Standard Entities
- Custom Entities already created in IFS Enterprise Explorer (known as Custom LU), can also be used in IFS Cloud.



CUSTOM ENTITIES

EXTEND STANDARD PAGES

- A standard Application page can be extended with Custom Entities
- Custom Entities are added to standard pages In IFS Cloud by configuring the Projection on which the page is based on
- The Page Designer is used to configure the layout of the standard page

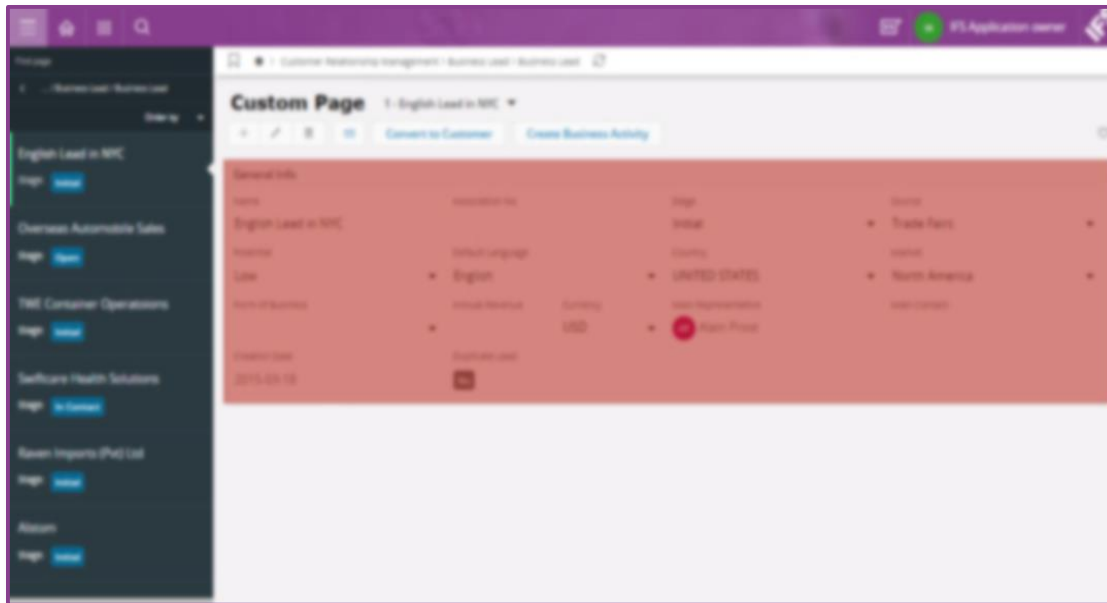


The Custom Entity data can be visualized as a **new section** in a standard page

CUSTOM ENTITIES

CREATE NEW CUSTOM PAGES

- Custom Pages can be created in IFS Cloud
- A Custom Page is created based on a new Custom Projection
- A new Custom Projection can be created using Custom Entities or Standard Entities
- The Page Designer is used to configure the Layout of the Custom Page



A **new Custom Page** based
on a Custom Entity

CUSTOM ATTRIBUTES

CONFIGURE AN ENTITY

- Custom Attributes are added to Entities using the Entity Configurations Page
- They can be added to either Standard pages or Custom Pages in IFS Cloud using the Page Designer
- Custom Fields in IFS Enterprise Explorer can also be used as Custom Attributes once upgraded.

The screenshot shows the 'Add Custom Attribute - TestEntity' dialog box. The left sidebar contains a navigation menu with options like 'Entity Configurations', 'Page Configurations', and 'Custom Attributes'. The main area is titled 'Add Custom Attribute - TestEntity' and has a progress bar with three steps: 'Custom Attribute Type', 'Properties', and 'Approve Information'. The 'Custom Attribute Details' section includes fields for 'Attribute Name', 'Prompt', and 'Comment'. Below this, the 'Custom Attribute Type' section has radio buttons for 'Persistent Field' (selected) and 'Read Only Field'. The 'Data Type' section has a dropdown menu set to 'String'. The 'Text Format' section has radio buttons for 'Unformatted' (selected), 'Uppercase', and 'Lowercase'. The 'Text Attributes' section includes 'Maximum Length' (set to 100), 'Multiline' (toggle off), and 'Clickable Hyperlink' (toggle off). At the bottom, there are 'Previous', 'Next', 'Finish', and 'Cancel' buttons.

The screenshot shows the 'Entity Configuration' page for 'TestEntity'. The left sidebar is the same as the previous screenshot. The main area has a search bar and a navigation menu. The 'Entity Configuration' section for 'TestEntity' includes a 'General' tab with fields for 'Entity' (TestEntity), 'Prompt' (TestLabel), 'Module' (CONFIG), 'Published' (No), 'Synchronized' (No), and 'Type' (Configured). Below this is a 'Custom Attributes' section with a table listing attributes. The table has columns for 'Attribute Name', 'Prompt', 'Approved', 'Published', 'Field Type', 'Comment', 'No of Translations', and 'Entity Reference'. The table contains one row: 'TEST_ATTR' with a prompt of 'Test Attr', 'Approved' set to 'Yes', 'Published' set to 'No', 'Field Type' set to 'Persistent Field', and 'No of Translations' set to 0. At the bottom, there are 'Validate' and 'Translate' buttons.



DEMO

CUSTOM ATTRIBUTES/CUSTOM ENTITIES



CUSTOM OBJECTS

PART 3 / 5

DEVELOPMENT & EXTENSIBILITY

IFS CLOUD – 21R1

AGENDA

1

CONFIGURATION
CONCEPT
MAPPING

2

ENTITY
CONFIGURATIONS

3

CUSTOM
ATTRIBUTES

4

PROJECTION
CONFIGURATIONS

5

CUSTOM
ACTIONS /
COMMANDS

6

ADMINISTRATING
CONFIGURATIONS

PROJECTION CONFIGURATIONS

USING CUSTOM PROJECTIONS

- IFS Cloud pages are populated based on data retrieved through a Projection
- It is possible to create Custom Projections as well as configure the Standard Projections
- This is done through 'New Projection Configuration' assistant

The screenshot displays the 'New Projection Configuration' wizard interface. The top navigation bar includes a search icon, a home icon, and a grid icon. The left sidebar contains a 'Find page' search bar and a list of navigation items: 'Solution Manager / Configuration', 'New Projection Configuration', 'New Projection Configuration', 'Projection Configuration', and 'Projection Configurations'. The main content area shows the wizard title 'New Projection Configuration' and a progress bar with steps: 'Select Configuration Type' (active), 'Create New Projection', 'Select Entities', '[Model Associations]', '[Add Actions]', and '[Publish]'. Below the progress bar, the 'Configuration Type' section has two radio buttons: 'Create New Projection' (selected) and 'Configure Standard Projection'. At the bottom, there are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'.

PROJECTION CONFIGURATIONS

CREATE NEW PROJECTION

- You can create a new Projection and add either Custom Entities or Standard Entities into it.
- This Custom Projection can be then used to create a Custom Page, which can then be configured using the Page Designer.

» > Solution Manager > Configuration > Projection Configurations > New Projection Configuration

New Projection Configuration

Select Configuration Type — Create New Projection — **Select Entities** — [Model Associations] — [Add Actions] — [Publish]

Done Cancel New

Projection Name	Entity Name	Entity Set Name	Operations Allowed	Approved
Demo123	Sales		Read	<input type="checkbox"/>

◀ Previous ▶ Next

Q Find Clear

- SalesGroup (Entity Name)
- Sales Group (Entity Prompt)
- ORDER (Module)
- STANDARD (Entity Type)
- SalesPriceCriteriaSys
- Sales Price Criteria Sys
- PRJREP
- STANDARD

PROJECTION CONFIGURATIONS

CONFIGURE STANDARD PROJECTION

- It is possible to configure existing Standard Projections also.
- They can be configured to add either Custom Entities or Standard Entities into it.
- Once configured, Standard Pages consuming those Standard Projections can then be configured using the Page Designer

» ≡ 🏠 ⋮

Find page

< Solution Manager / Configuration

New Projection Configuration

New Projection Configuration

Projection Configuration

Projection Configurations

Grou...

Exec...

Work...

Sche...

IFS A...

»

● > Solution Manager > Configuration > Projection Configurations > New Projection Configuration

New Projection Configuration

○ Select Configuration Type — ● Select Projection — ○ [Select Entities] — ○ [Model Associations] — ○ [Add Actions] — ○ [Publish Pro...]

Projection Name

Customer

ORDER

CustomerOrderHandling (Projection Name)
Use this API to enter, process, and view information on the customer order. A customer order is built in two levels consisting of an order header and order lines. (Description)
ORDER (Component)

CustomerOrderHistoryAnalysis
Use this API to view the status of the customer order header changed, when it was changed, and by whom.
ORDER

CustomerOrderInvoiceHandling
Use this API to study invoice details and to change the reference, delivery conditions and modes, forwarding agent, invoiced quantity, price, discount, etc. All changes can be made until...
ORDER

PROJECTION CONFIGURATIONS

ADDING ASSOCIATIONS

- Once you configure a projection by adding Entities, you can create Associations to define relationships between those Entities.
- This is useful to configure a page with a 'master-detail' configuration.

> Solution Manager > Configuration > Projection Configurations > New Projection Configuration

New Projection Configuration

Progress: Select Configuration Type → Create New Projection → Select Entities → **Model Associations** → Add Actions → Publish Projection

Setting up associations is optional

Entity Associations

Projection Name	Association Name	Parent Entity Name	Child Entity Name	Approved
R2R_Demo	Demo1	CustomerInfo	CustomerAgreement	Yes

Entity Association Key Mappings

Parent Entity Key	Child Entity Key
CUSTOMER_ID	CUSTOMER_NO

Navigation: Previous, Next, Finish, Cancel

A person's hand is shown reaching out towards a digital interface. The background is dark blue with a network of white lines and dots. Overlaid on the hand are several circular icons containing symbols like a person, a cloud, a bar chart, a gear, a padlock, and a globe. To the right of the hand, there are some technical-looking elements like a line graph and a vertical bar chart. The overall theme is technology and digital interaction.

DEMO

CUSTOM PROJECTIONS



CUSTOM OBJECTS

PART 4 / 5

DEVELOPMENT & EXTENSIBILITY

IFS CLOUD – 21R1

AGENDA



1

CONFIGURATION
CONCEPT
MAPPING

2

ENTITY
CONFIGURATIONS

3

CUSTOM
ATTRIBUTES

4

PROJECTION
CONFIGURATIONS

5

**CUSTOM
ACTIONS /
COMMANDS**

6

ADMINISTRATING
CONFIGURATIONS

CUSTOM ACTIONS AND COMMANDS

CUSTOM ACTIONS

- Custom Actions provides the possibility to add additional actions to Projections.
- As any Projection action, a Custom Action can be added as a command to a page.
- Custom Actions are defined in the Projection by referring an existing PL/SQL method in the business logic.

The screenshot shows the 'New Projection Configuration' page in the IFS Solution Manager. The left sidebar contains navigation links: 'Find page', 'Solution Manager / Configuration', 'New Projection Configuration', 'New Projection Configuration', 'Projection Configuration', 'Projection Configurations', 'Grou...', 'Exec...', 'Work...', 'Sche...', 'IFS A...', 'Cust...', and 'Sche...'. The main content area has a breadcrumb trail: 'Solution Manager > Configuration > Projection Configurations > New Projection Configuration'. Below the breadcrumb is a progress bar with steps: 'Select Configuration Type', 'Create New Projection', 'Select Entities', '[Model Associations]', '[Add Actions]' (current step), and '[Publish]'. The text 'Adding Actions is optional' is displayed. The 'Custom Actions' section contains a table with one entry:

(1)	✓	Action Name	PL/SQL Method	Entity Dependencies	Approved
<input checked="" type="checkbox"/>		CustomActionTest	CREDIT_ANALYST_USER_		<input checked="" type="button" value="Yes"/>

Below the table is the 'Action Parameters' section with a table:

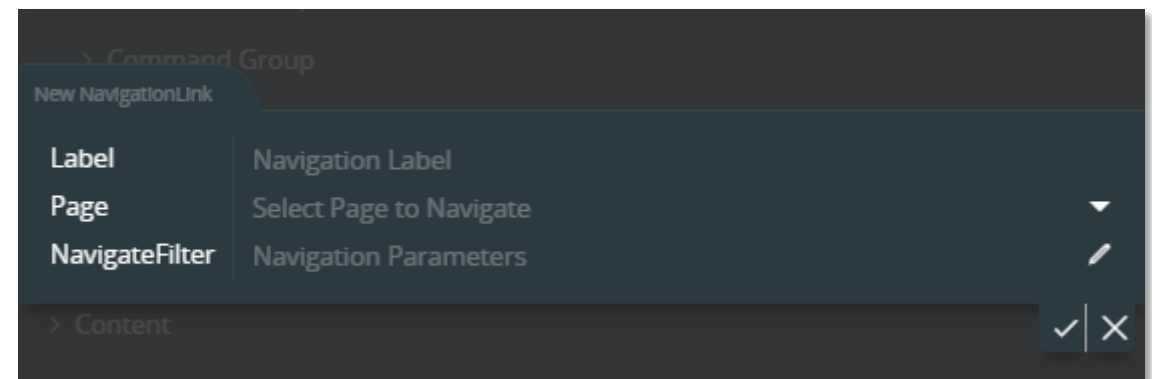
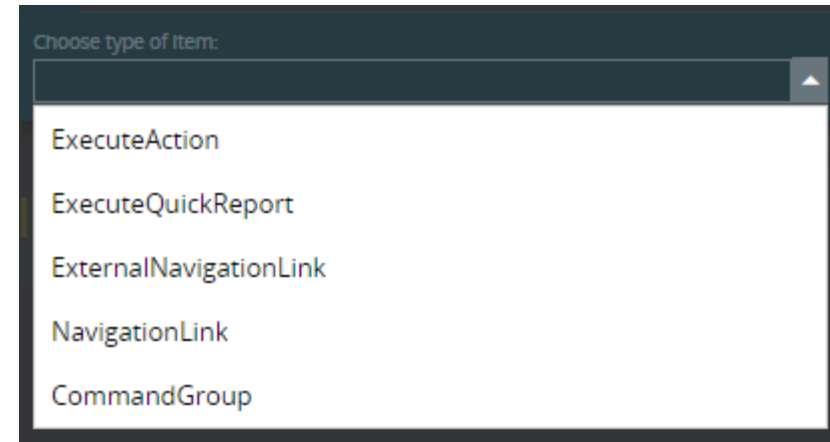
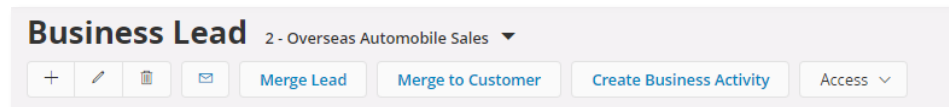
✓	Argument Name	Argument Datatype
<input type="checkbox"/>	ATTR_	VARCHAR2

At the bottom are navigation buttons: 'Previous', 'Next', 'Finish', and 'Cancel'.

CUSTOM ACTIONS AND COMMANDS

COMMANDS

- Commands are added as buttons to pages and can be added to the page top header and above lists and group sections
- They are added to Pages using the Page Designer
- Commands provides the functionality to:
 - Execute Projection Actions
 - Execute Quick Report
 - Navigate to external link
 - Navigate between pages





DEMO

CUSTOM ACTIONS/COMMANDS



CUSTOM OBJECTS

PART 5 / 5

DEVELOPMENT & EXTENSIBILITY

IFS CLOUD – 21R1

AGENDA



1

CONFIGURATION
CONCEPT
MAPPING

2

ENTITY
CONFIGURATIONS

3

CUSTOM
ATTRIBUTES

4

PROJECTION
CONFIGURATIONS

5

CUSTOM
ACTIONS /
COMMANDS

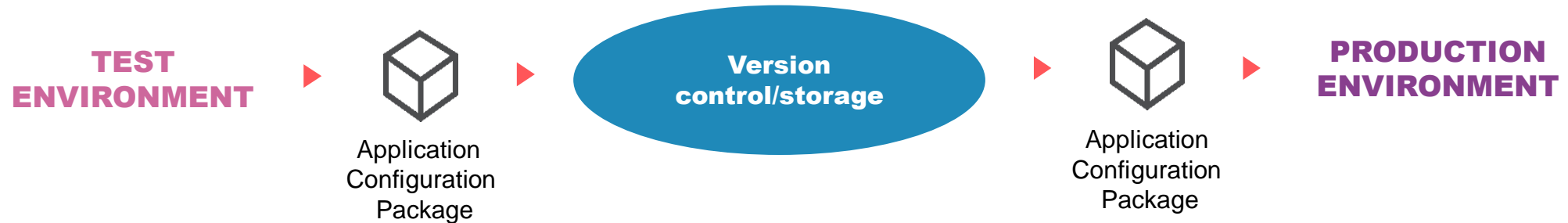
6

ADMINISTRATING
CONFIGURATIONS

APPLICATION CONFIGURATION PACKAGES

CONFIGURATION EXPORT AND IMPORT

Configurations can be included in
Application Configuration Packages



EXPORTING AND IMPORTING CONFIGURATIONS

The screenshot shows the IFS Application Configuration Package management interface. The top navigation bar includes a menu icon, home icon, grid icon, search icon, and user profile (IA IFS Application owner). The left sidebar contains a 'Find page' search bar and a list of navigation items: 'Solution Manager / Configuration', 'Application Configuration Package' (highlighted), 'Application Configuration Packages', 'Configuration Extractor', and 'Import Configuration'. The main content area displays the 'Application Configuration Package' details for 'SolSetOffACP'. The breadcrumb trail is 'Solution Manager > Configuration > Application Configuration Packages > Application Configuration Package'. The title 'Application Configuration Package' is followed by a dropdown menu showing 'SolSetOffACP'. Below the title is a toolbar with icons for adding, editing, deleting, and publishing, along with buttons for 'Publish', 'Export' (highlighted with a red box), 'Manage Grants', and 'Validate'. The 'General' section shows the package name 'SolSetOffACP', author 'R&D Project Environments', description 'Sol Set Off ACP', and last modified date '11/10/2020'. The 'Import Details' section shows the version '1.0' and origin.

Find page

< Solution Manager / Configuration

Application Configuration Package

Application Configuration Packages

Application Configuration Package

Configuration Extractor

Import Configuration >

> Solution Manager > Configuration > Application Configuration Packages > Application Configuration Package

Application Configuration Package

SolSetOffACP

»

Publish **Export** Manage Grants Validate

General

Name	Author	Description
SolSetOffACP	R&D Project Environments	Sol Set Off ACP

Last Modified Date

11/10/2020

Import Details

Version	Imported Date	Origin
1.0		

Version Time Stamp

EXPORTING AND IMPORTING CONFIGURATIONS

The screenshot shows the IFS Solution Manager interface for importing a configuration package. The top navigation bar is purple with icons for menu, home, and grid, and a user profile 'IA' on the right. The left sidebar is dark grey with a search bar and a breadcrumb trail: '< ... / Configuration / Application Configuration Packages'. The main content area has a title 'Import Configuration Package' and a progress indicator with two steps: 'Select Configuration Package' (active, blue circle) and 'Validation Summary' (grey circle). Below the progress bar, there is instructional text: 'Open the configuration package you want to import. When a package is opened the configuration is displayed. When the validation is completed it is possible to import the configuration.' A dashed box contains a file upload area with the text 'Drop files to attach, or' and a 'Browse' button. At the bottom, there are four buttons: 'Previous', 'Next', 'Import', and 'Cancel'.

Find page

< ... / Configuration / Application Configuration Packages

Import Configuration Package

Import Configuration File(s)

Import Configuration Package

> Solution Manager > Configuration > Application Configuration Packages > Import Configuration > Im

Import Configuration Package

Select Configuration Package Validation Summary

Open the configuration package you want to import. When a package is opened the configuration is displayed. When the validation is completed it is possible to import the configuration.

Drop files to attach, or Browse

Previous Next Import Cancel



DEMO

APPLICATION CONFIGURATION PACKAGES



#forthechallengers