



Develop Global Websites in
Adobe Experience Manager



STUDENT WORKBOOK

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Develop Global Websites in Adobe Experience Manager

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05/29/2020

Playlist

Develop Global Websites in Adobe Experience Manager

This course is a combination of modules from two different courses.

You will receive course materials of:

- Adobe Experience Manager Technical Basics
- Develop Global Websites in Adobe Experience Manager

This table shows the order in which these courses, and the modules within them, flow:

Course Name	Module Number	Module Name
AEM Technical Basics	4	Sites Authoring Basics
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Introduction to Global Websites

Introduction

In today's world, many organizations' activities transcend geographic boundaries and cultures. Organizations use different marketing channels, such as websites, blogs, campaigns, and apps, to reach customers globally. The content of these channels should have versions in different languages and should be adaptable to local expectations. In other words, the content should be translated and localized. Organizations can achieve both through Adobe Experience Manager's (AEM) Translation and Multi Site Manager (MSM) features.

Objectives

After completing this module, you will be able to:

- Describe global websites
- Describe translation and localization
- Describe the terminology, translation process, and the tools used to translate and localize content
- Describe different roles needed to manage global websites

Global Websites: An Introduction

You need to translate and localize the content to reach the global audience. The process to create content in different languages, localize the content, and maintain these versions requires significant investment in resources and time.

The additional human and computational resources that are required for an internationalization project, add significant complexity of content management.

AEM mitigates the impact of content internationalization and localization and also provides the structure for translation process, best practices for content hierarchies, and process step automation.

An out-of-the-box (OOTB) translation workflow provides the structure for the translation process. The process is defined as a sequence of workflow steps. Many steps are automated, depending on the quality, cost and time requirements of the content translation.

Translation and Localization

A website that has the same content in more than one language is known as a multilingual website. You can create a website in different languages by using the translation process. In this process, the source content is translated into the target languages.

A language might have differences in spelling, word usage, grammar, and idioms based on geographical regions. In such cases, translating the content might not be sufficient. The translated content might need additional tweaking for local target markets. The process of adapting the content to local needs is called localization.

The localization process is often used to create websites for the countries that share a common language. To minimize the effort, the translated content is usually copied to a new version of the website for each country and then the specifics of the local version is added to the new copy of the original language translation.

With translation and localization, the web content publishing process becomes complex. You need to define and execute translation mechanisms for each additional language. In addition, each local adaptation increases the number of copies of the content by one. You must use a reliable system that coordinates and ideally automates the steps required to manage and publish the content in different languages and localized versions.

Terminology

To create multilingual websites, you need to create versions of the website in multiple languages. When you apply the process of Localization and Internationalization, you get a version of the content in a specific locale. The locale is the geographic region that shares a set of expectations on how you can use the language.

In computing, to exchange information, the distributed systems must be able to determine the exact language and idiom to process the content correctly. For this purpose, the International Standards Organization (ISO) has defined a set of abbreviated expressions to describe the exact locale, an adaptation of a certain language it is intended to be in.

The version of ISO 639-1 standards used in AEM defines a locale as a four-letter code. The first set of two letters describes the language of the content and the second set describes the geographic region. Together any variation of usage of a language can be classified and labeled. The combination of the language code with a two-letter geographic identifier is called a locale. A locale is a language code and a geographic region code intersected with a dash (-) or underscore (_) character. For example, the language code for English is **en**. The Canadian English locale would be **en-ca** or **en_ca**. The locale for the French mainland is **fr-fr**. If the content is not localized and only translated, the two-letter language code, such as **en** is used.

The ISO standards for locales are documented in [ISO 639-1](#).

Translation Process and Tools

AEM's best practice recommendations and the user interface wizard enable the initial setup of new content hierarchies for additional websites in new languages and locales. AEM simplifies the process to update or add to the existing content in different languages and localizations.

AEM enables you to coordinate the translation and localization of every piece of content through various stages of transformation and publication readiness. It helps initiate the process for a disparate set of content, to track the status of ongoing processes and quality control of the translated and localized content.

A stable Application Programming Interface (API) of AEM's translation integration system enables third parties to offer a connector to their translation capabilities. The API enables the automation of many steps in the translation process such as selecting and collecting the source content, sending it to the entity responsible for the actual language translation, and integrating the translated language into the correct location in the multilingual content structure within the AEM repository. You can control and execute each step individually and manually. However, AEM enables you to automate each step with a set of tools. The initiation and execution of the translation process are formalized with a predefined translation workflow, which is part of the OOTB content management functionality.

The tools for content translation are built around the translation workflow. The translation workflow uses AEM's project management capability to orchestrate the content translation process. The Translation API enables the connectors to the systems external to AEM to tightly integrate with the translation workflow capability. A host of partners of Adobe have created integrations. The localization process is supported by a set of tools collectively referred to as Multi-Site Manager (MSM).

Roles

To publish and maintain a global website, the skills and contribution of the collaborators performing several roles, such as content authors, website managers, and system administrators, are required.

Content Authors

Content authors, often called as website editors and producers, initiate translation projects and move the translation workflow forward. Content authors hand over the content to translators, and depending on their language abilities, review and approve the translated copy.

Website Managers

The website managers have elevated privileges to perform administrative functions on the operations of a global website. The responsibilities include:

- Creating new content structures also known as language copies, for additional language versions of the website
- Mapping the correct translation services to the relevant content
- Administering translation project configurations
- Managing the launch copies that get automatically created as helper copies during the translation projects

System Administrators

Users with administrative privileges need to install and manage different translation methods and translation integration connectors. They assign privileges to website managers and content authors.

References

- [Standard for language codes and locales](#)
- [Adobe Exchange for Connectors](#)

Module 2

Translate Site Content

Introduction

In Adobe Experience Manager (AEM), you can automate the translation of digital experiences to expand the reach globally.

Objectives

After completing this module, you will be able to:

- Create language copies and language roots
- Explain the translation workflow
- Describe projects
- Create a translation project
- Describe translation jobs
- Select pages for translation
- Execute the translation
- Review translated pages
- Select the content for translation in the Sites console
- Update an existing language copy

Language Copy and Language Root

Each language branch of a site is called a language copy. Language copies are pages with the same content but different languages, they are placed on the same level in the content hierarchy. The root page of a language copy is known as the language root and identifies the language of the content in the language copy. For example, /content/abc-site/fr is the language root for the French language copy. You can configure language copies to use the appropriate language root to ensure the correct language is targeted when you perform translation of a source site.

The language copy on which the site content is authored is known as the language master. The language master is the source that is translated into other languages.

The two methods to configure a page to be a language root are:

1. Adding a language code or locale to the page **Name** value as defined in ISO 639-1.
2. Setting the **Language** property and select the **Language Root** check box in the page properties

If you apply both methods to configure a language root, the second method takes precedence over the first.

To create a language root with the first method, you need to create a page and use an ISO language code as the value for the **Name** property. The language code must be in one of the following formats:

- <language-code>
 - > The supported language code is a two-letter code as defined by ISO-639-1. For example, en, es, and fr.
- <language-code>_<country-code> or <language-code>-<country-code>
 - > The supported country code is a lowercase or uppercase two-letter code as defined by ISO-3166. For example, en_US, en_us, and en_GB, en-gb.

You can use either format. For example, the root page of the French language copy of the WKND site has fr as the **Name** property. The **Name** property is used as the name of the page node in the repository, and, therefore, determines the URL of the page. For example, <http://localhost:4502/sites.html/content/wknd/language-masters/fr>

To prepare your site for translation:

- Create the language root of your language master
- Author the content of your language master
- Create the language root of each language copy for your site

After you prepare your content for translation, you can automatically create missing pages in your language copies and associated translation projects.

Exercise 1: Create a language copy

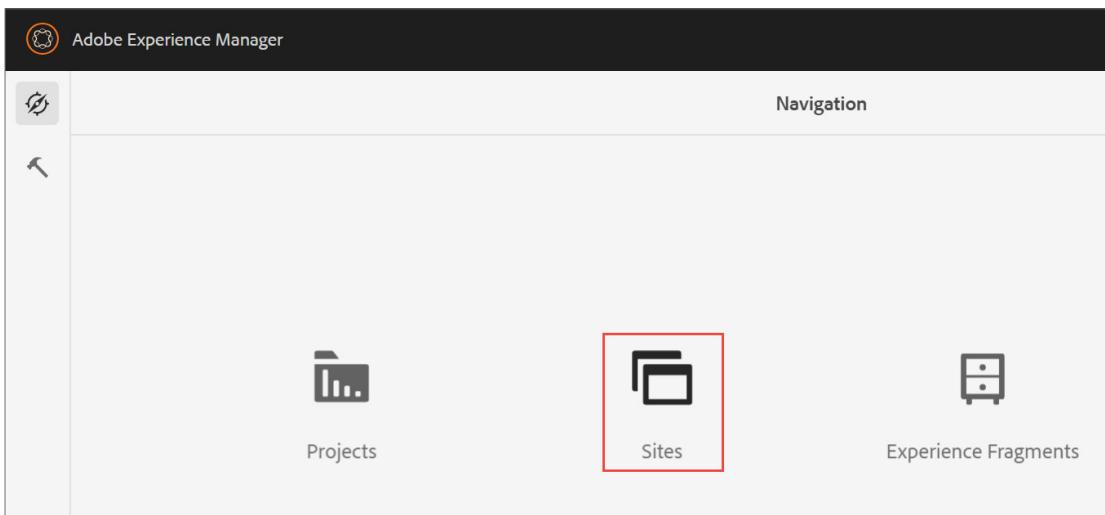
Scenario: As an author of a multilingual website, you want to create a French version of a page in English.

You need to create a new page at the correct location within the French website, so that it can function as a language copy of the English page.

Prerequisite: Log on to the AEM author service as instructed by the trainer.

 **Note:** If you are not using a hosted environment provided by the trainer, you must start and log in to the AEM author service on your system.

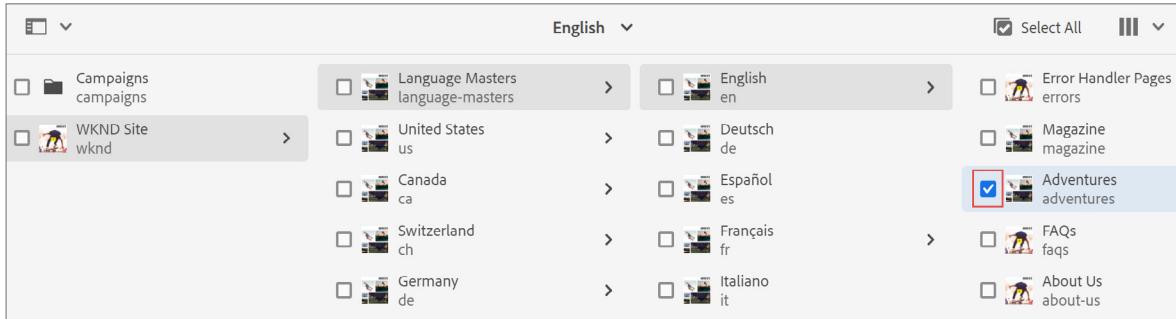
1. From the **Navigation** panel, click the **Sites** console, as shown:



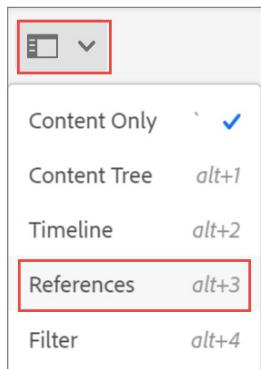
The **Sites** console opens with a **Product Navigation** dialog box.

2. Select the **Don't show this again** check box and click **Close**. The dialog box closes.

3. Navigate to the WKND Site > Language Masters > English and select the Adventures page, as shown:

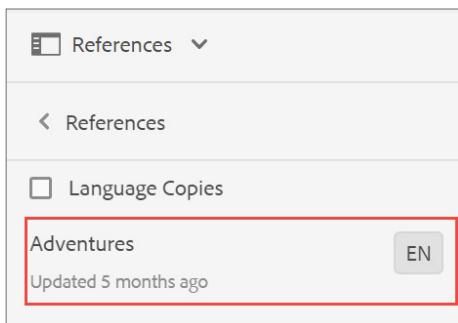


4. Click the rail selector icon on the actions bar and select References from the drop-down menu, as shown:



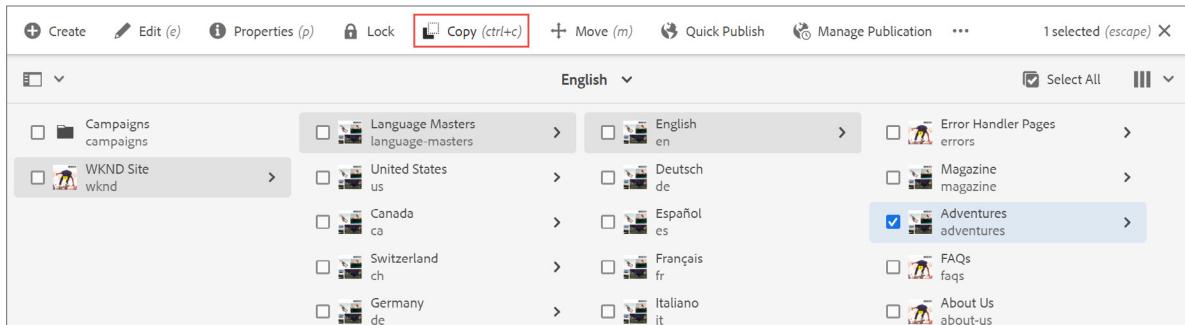
The References panel opens.

5. Click Language Copies (1) in the panel to view the list of language copies.
 6. Observe the Adventures page has an English language copy, as shown:



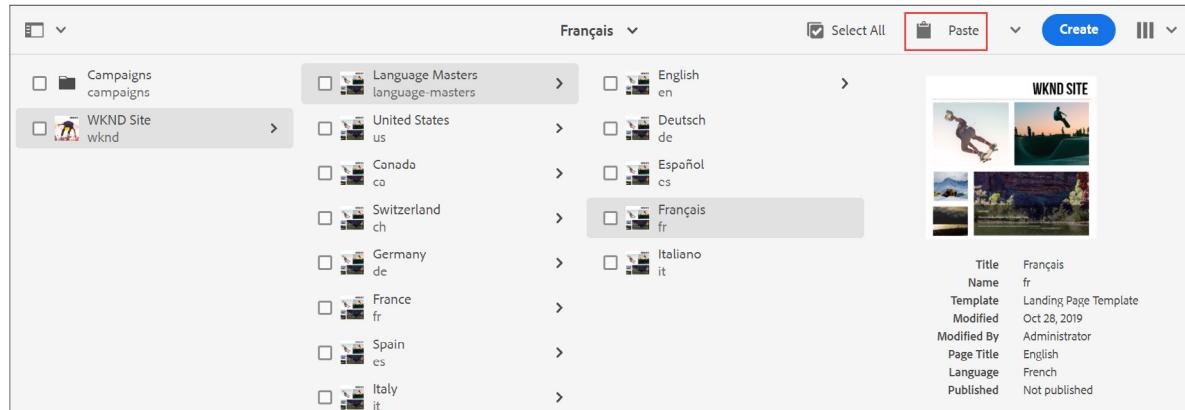
To create a language copy:

7. Ensure the **Adventures** page is selected and click **Copy** on the actions bar, as shown:



The page is copied, and the **Paste** button appears on the actions bar.

8. Navigate to the **WKND Site > Language Masters > Francais** page and click **Paste** on the actions bar, as shown:



The **Adventures** page is added as a subpage of the **Francais** page.

9. Navigate to **WKND Site > Language Masters > English** and select the **Adventures** page.
10. Ensure the **References** panel is open. If not, click the rail selector icon on the actions bar. The drop-down menu appears.
11. Select **References** from the drop-down menu. The **References** panel opens.

12. Click **Language Copies (2)** in the panel to view the language copies.
13. Observe the **Adventures** page now has a **French** language copy, as shown:

The screenshot shows the 'References' panel in Adobe Experience Manager. At the top, there's a dropdown menu labeled 'References'. Below it, a section titled 'Language Copies' is expanded. Under this section, there are two items: 'Adventures' (EN) and 'Adventures' (FR). The 'Adventures' (FR) item is highlighted with a red rectangular border around its entire row. To the right of each item is a small button containing the language code (EN or FR).

14. Click **1 selected x** at the top-right corner of the actions bar to clear the **Adventures** page check box.

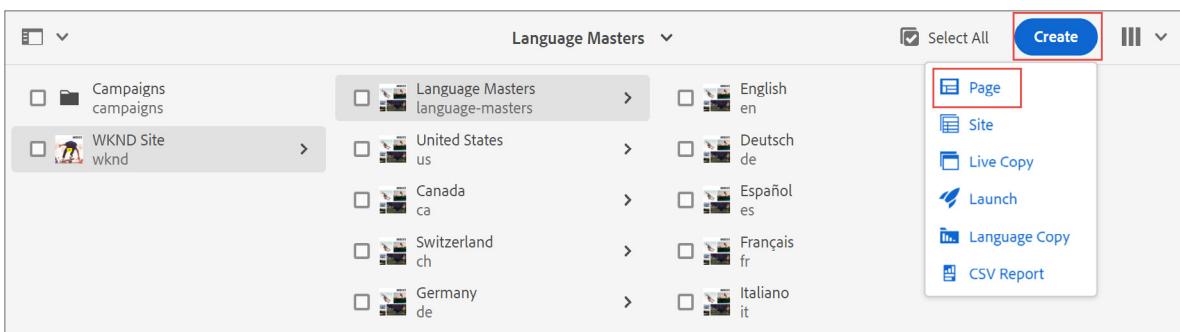
Exercise 2: Create a language root

Scenario: As a manager of a global website, you need to create a new language version of a website in Greek. The web address of the Greek homepage should end with home.html.

You need to create a new page with the page name **home**, define the page language as **Greek**, and configure the page to function as a language root.

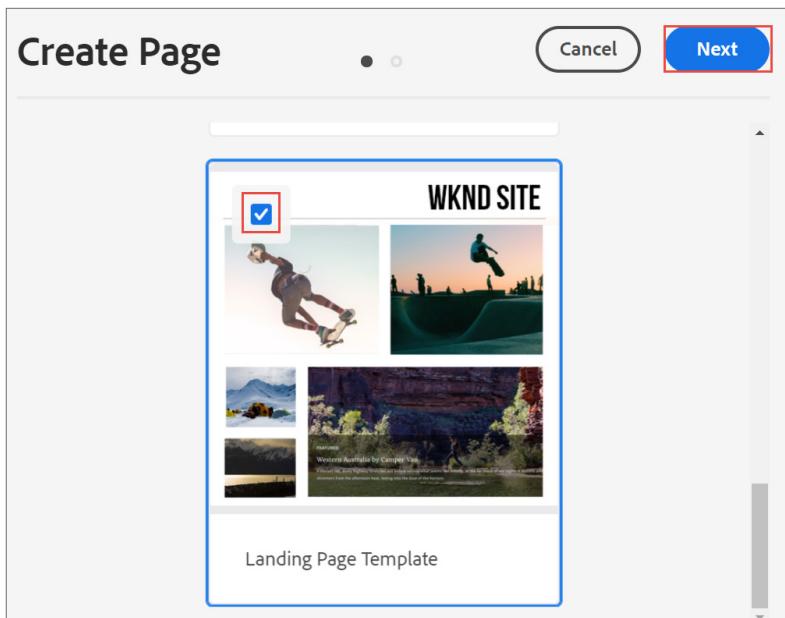
To create a page with name **home**:

1. Ensure you are in the **Sites** console.
2. Navigate to the **WKND Site > Language Masters** page.
3. Click **Create** on the actions bar. A drop-down menu appears.
4. Select **Page** from the drop-down menu, as shown:



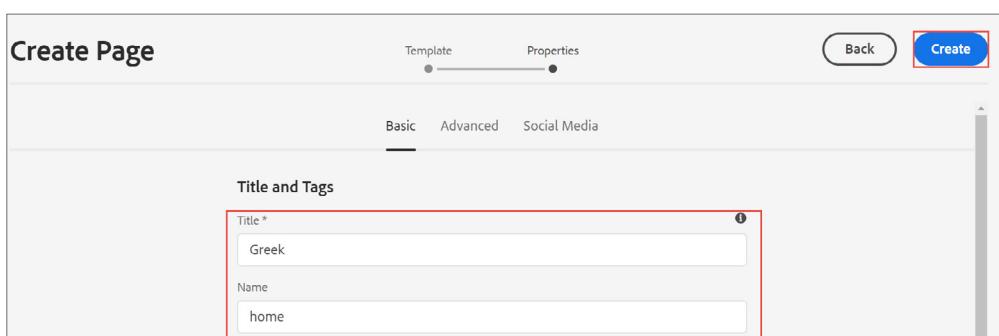
The **Create Page** wizard opens.

5. In the **Template** section of the wizard, perform the following tasks, as shown:
- Select the **Landing Page Template**.
 - Click **Next**.



The **Properties** section of the **Create Page** wizard opens.

6. In the **Properties** section of the wizard, perform the following tasks, as shown:
- Ensure you are on the **Basic** tab:
 - Type **Greek** in the **Title** box.
 - Type **home** in the **Name** box.
 - Click **Create**.



The **Success** dialog box opens.

7. Click **Done**. The **Sites** console appears.

8. Observe the **Greek** page with the name **home** is added to the site structure, as shown:

The screenshot shows the 'Language Masters' interface. On the left, there's a tree view of language masters and their regions: 'Language Masters language-masters', 'United States us', 'Canada ca', 'Switzerland ch', 'Germany de', and 'France fr'. To the right, there's a list of language copies: 'English en', 'Deutsch de', 'Español es', 'Français fr', 'Italiano it', and 'Greek home'. The 'Greek home' node is highlighted with a red box.

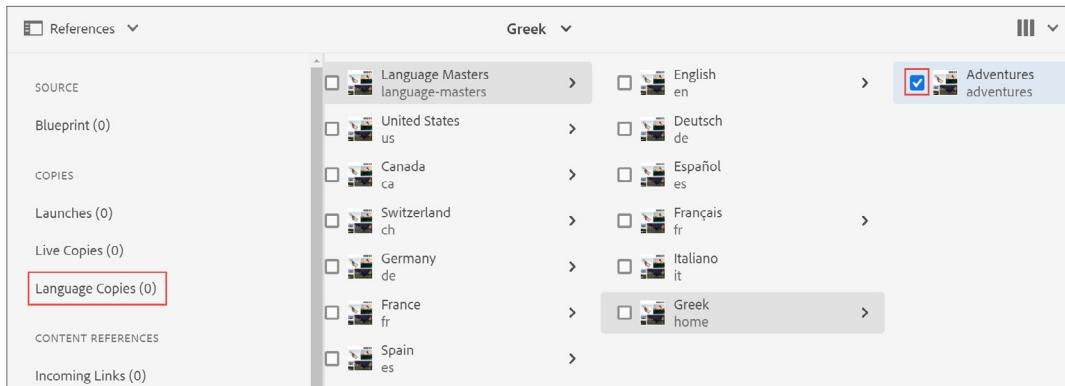
9. Navigate to the **WKND Site > Language Masters** and select the **English** page.
 10. Ensure the **References** panel is open.
 11. Click **Language Copies (5)** in the panel to view the language copies of the English page.
 12. Notice that the **English** page has only five language copies and **Greek** is not yet a language copy, as shown:

The screenshot shows the 'Language Masters' interface with the 'References' panel open. In the 'Language Copies' section of the references panel, the 'English' copy is selected (indicated by a checked checkbox) and highlighted with a red box. In the main tree view, the 'English en' node is also highlighted with a red box. The tree view shows 'Language Masters language-masters', 'United States us', 'Canada ca', 'Switzerland ch', 'Germany de', 'France fr', 'Spain es', and 'Italy it'. The 'Greek home' node is present but not selected.

13. Clear the selected **English** page check box.

To create a subpage of the Greek page:

14. Navigate to the WKND Site > **Language Masters** > **Greek** page.
15. Click **Create** on the actions bar. A drop-down menu appears.
16. Select **Page** from the drop-down menu. The **Create Page** wizard opens.
17. In the **Template** section of the wizard, select the **Landing Page Template** and click **Next**. The **Properties** section of the wizard opens.
18. In the **Properties** section, ensure you are on the **Basic** tab, type **Adventures** in the **Title** box and click **Create**. The **Success** dialog box opens.
19. Click **Done**. The **Sites** console appears.
20. Observe the **Adventures** page is added as a subpage of the **Greek** page.
21. Navigate to the WKND Site > **Language Masters** > **Greek** and select the **Adventures** page.
22. Ensure the **References** panel is open.
23. Notice that the **Adventures** page has no language copies, as shown:



24. Clear the **Adventures** page check box.

To define a page as a language root:

25. Navigate to the WKND Site > **Language Masters** and select the **Greek** page.

26. Click **Properties (p)** on the actions bar, as shown:

The screenshot shows the AEM 'Language Masters' interface. The left sidebar shows 'Campaigns' and 'WKND Site'. The main area shows a tree structure of language masters: 'Language Masters' (selected), 'United States', 'Canada', 'Switzerland', 'Germany', 'France', and 'Greek' (selected, indicated by a checked checkbox). The 'Properties (p)' button in the top navigation bar is highlighted with a red box.

The **Greek** properties page opens.

27. Click the **Advanced** tab to open it.

28. On the **Settings** section, perform the following tasks, as shown:

- Select **Greek** from the **Language** drop-down menu.
- Select the **Language Root** check box.
- Click **Save & Close**.

The screenshot shows the 'Greek' properties page in the AEM dialog. The 'Advanced' tab is selected. In the 'Settings' section, the 'Language' dropdown is set to 'Greek' and the 'Language Root' checkbox is checked. The 'Save & Close' button is highlighted with a blue box.

The form has been submitted successfully message appears at the bottom of the **Sites** console.

29. Navigate to the WKND Site > **Language Masters** and select the **English** page.

30. Ensure the **References** panel is open.

31. Click **Language Copies (6)** in the panel to view its language copies.

32. Notice that the **Greek** page is now a language copy of the **English** page, as shown:

The screenshot shows the AEM interface with the 'Language Masters' panel open. On the left, the 'References' panel lists language copies: Deutsch, Español, Français, Italiano, and Greek. The Greek entry is highlighted with a red box. On the right, the 'Language Masters' panel shows the hierarchy. The 'language-masters' node has children for United States (us), Canada (ca), Switzerland (ch), Germany (de), France (fr), and Spain (es). The 'English' node (en) is selected, indicated by a checked checkbox in its actions bar. Other nodes listed are Deutsch (de), Español (es), Français (fr), Italiano (it), and Greek (home).

33. Click **1 selected x** at the top-right corner of the actions bar to clear the selected **Greek** page.

34. Navigate to the **WKND Site > Language Masters > Greek** and select the **Adventures** page.

35. Ensure the **References** panel is open.

36. Click **Language Copies (3)** in the panel to view its language copies.

37. Observe that the **Adventures** page inherits the language from the language root page and is also recognized as a language copy, as shown:

The screenshot shows the AEM interface with the 'Language Masters' panel open. The 'References' panel shows language copies: Adventures (EN) and Aventuras (FR). The Adventures entry is highlighted with a red box. On the right, the 'Language Masters' panel shows the 'Greek' node selected. Under it, the 'English' node (en) is selected, indicated by a checked checkbox in its actions bar. Other nodes listed are Deutsch (de), Español (es), Français (fr), Italiano (it), and Greek (home).

38. Click **1 selected x** at the top-right corner of the actions bar to clear the selected **Adventures** page check box.

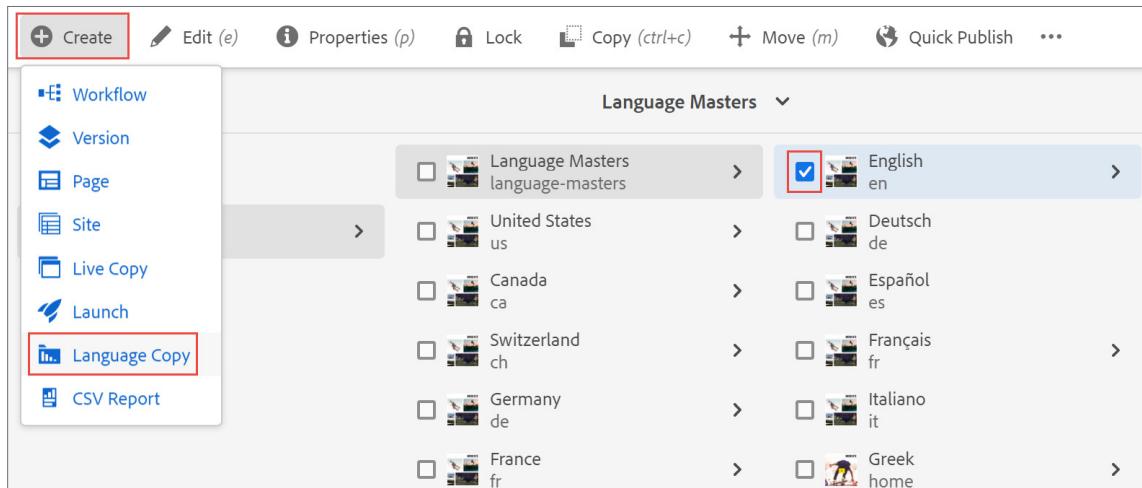
Exercise 3: Create a language copy and language root from the Language Copy wizard

Scenario: As a website manager, you want to create a Portuguese version of an English language website.

You need to use the **Language Copy** wizard to create the Portuguese language root and language copy of all pages of the English website.

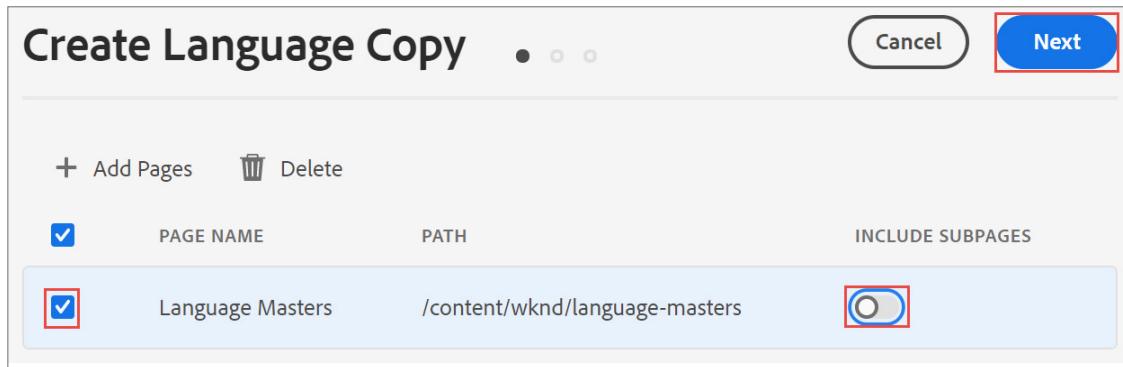
To create a language root from the wizard:

1. Navigate to the **WKND Site > Language Masters** page.
2. Select the **English** page, click **Create** on the actions bar and select **Language Copy** from the drop-down menu, as shown:



The **Create Language Copy** wizard opens.

3. In the wizard, perform the following tasks, as shown:
 - a. Select the **English** check box.
 - b. Slide the **INCLUDE SUBPAGES** button to the left to disable it.
 - c. Click **Next**.



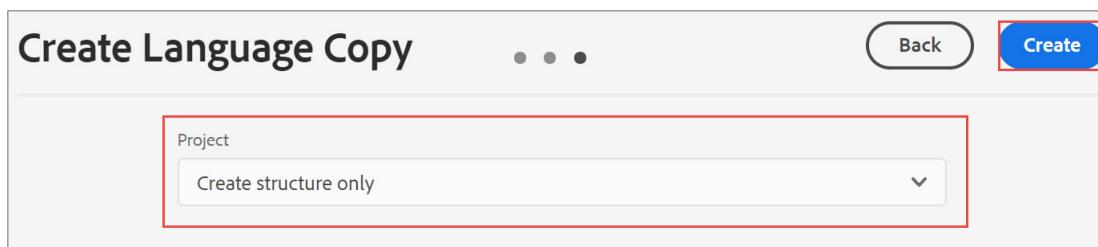
The next section of the **Create Language Copy** wizard appears.

4. Select **Portuguese (pt)** from the **Target Language(s)** drop-down menu and click **Next**, as shown:



The next section of the **Create Language Copy** wizard appears.

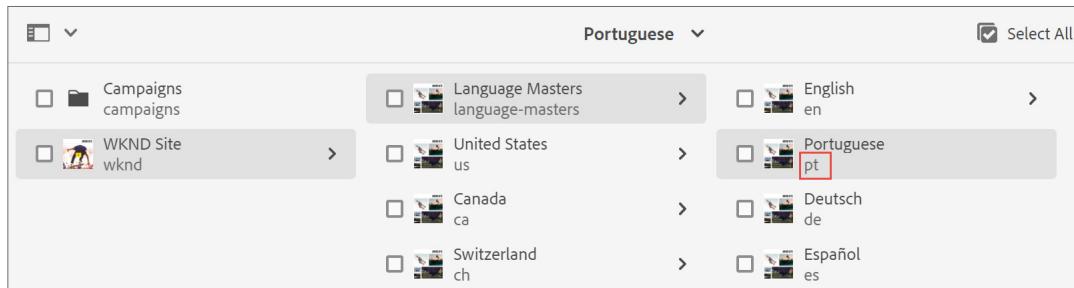
5. Select **Create structure only** from the **Project** drop-down menu and click **Create**, as shown:



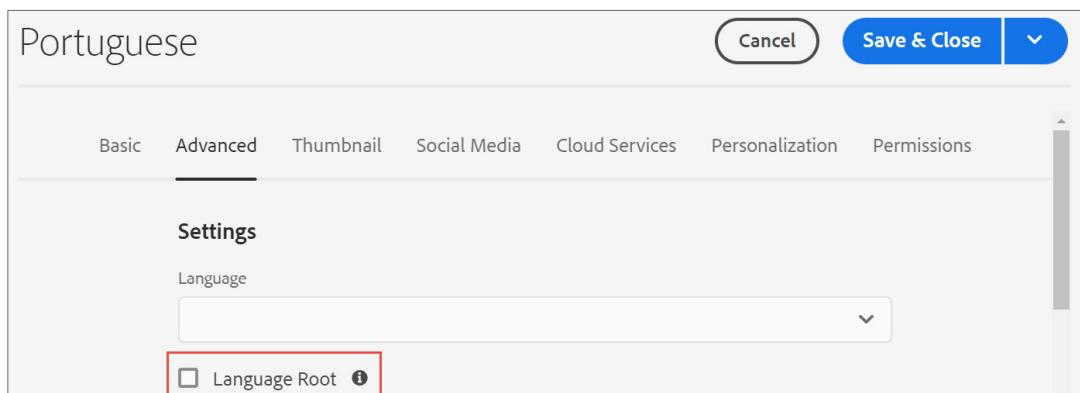
The **Success** dialog box opens.

6. Click **Done**. The **Sites** console appears.

7. Notice that the language root has the name **pt**, as shown, because of the language you selected in the wizard:



8. Select the **Portuguese** page and click **Properties (p)** on the actions bar. The **Portuguese** properties page opens.
9. Click the **Advanced** tab, notice that the **Language Root** check box is not selected, as shown. The Portuguese page is still a language root because it uses the ISO language code for Portuguese.



10. Click **Cancel** to close the **Portuguese** properties page.

Translation Workflow

To use the out-of-the-box (OOTB) translation workflows, you need to decide on how you will exchange the content with the translation service provider and use AEM projects for managing the status of the content in the translation process.

AEM supports:

- Human translation: The content is sent to the translation provider and by exporting the content from AEM locally as files. The translated content is then imported into AEM.
- Machine translation: A translation integration connector is configured to handle the exchange of the content before and after translation automatically.

To configure the translation workflow in AEM, perform the following steps:

1. Connect AEM with the translation service provider and create the translation integration framework configuration.
2. Associate the pages of language master with the translation service and framework configurations.
3. Identify the type of content to translate.
4. Author the language master and create the root pages of language copies to prepare the content for translation.
5. Create translation projects to gather the content to translate and to start the translation process.
6. Use the translation projects to manage the content translation process.

Projects

The **Projects** console provides a common environment for shared project resources and processes. The types of resources that you can associate with a project depend on the available tiles, as shown:

The screenshot shows a project dashboard titled "English to Italian [IT]". The dashboard is divided into four main sections:

- Summary:** Displays basic project information:
 - Provider: Microsoft
 - Method: Machine Translation
- Translation Job [IT]:** Shows the status as "Approved" and lists assets, content fragments, I18n Dictionaries, and Tags.
- Team (1):** Shows one team member, Scott Reynolds, with a profile picture.
- Tasks (0):** Shows a placeholder icon and a button to "Add Task".

Tiles represent either the project resources that are available, such as team members, assets, workflows, to achieve the project goals or the overview cards that show the progress of the project in terms of open and completed tasks and running workflows.

Translation Projects

Translation projects help manage the stages of the content translation process in AEM. Specifically, translation projects help:

- Define the scope of the pages that need translation into a batch
- Control the path of pages through various stages of the translation process with overview consoles
- Provide triggers to initiate the transition into the next stage.

You can create a translation project from the **Translation Project** template that is available in AEM by default. You can add content resources to be translated to the translation project and start the **Translation Job** tile. This tile provides buttons to trigger the advancement of content from one process stage into the next and the status information of the translation process.

The translation project template includes three basic roles: Owners, Editors, and Observers.

The translation projects use the following tiles:

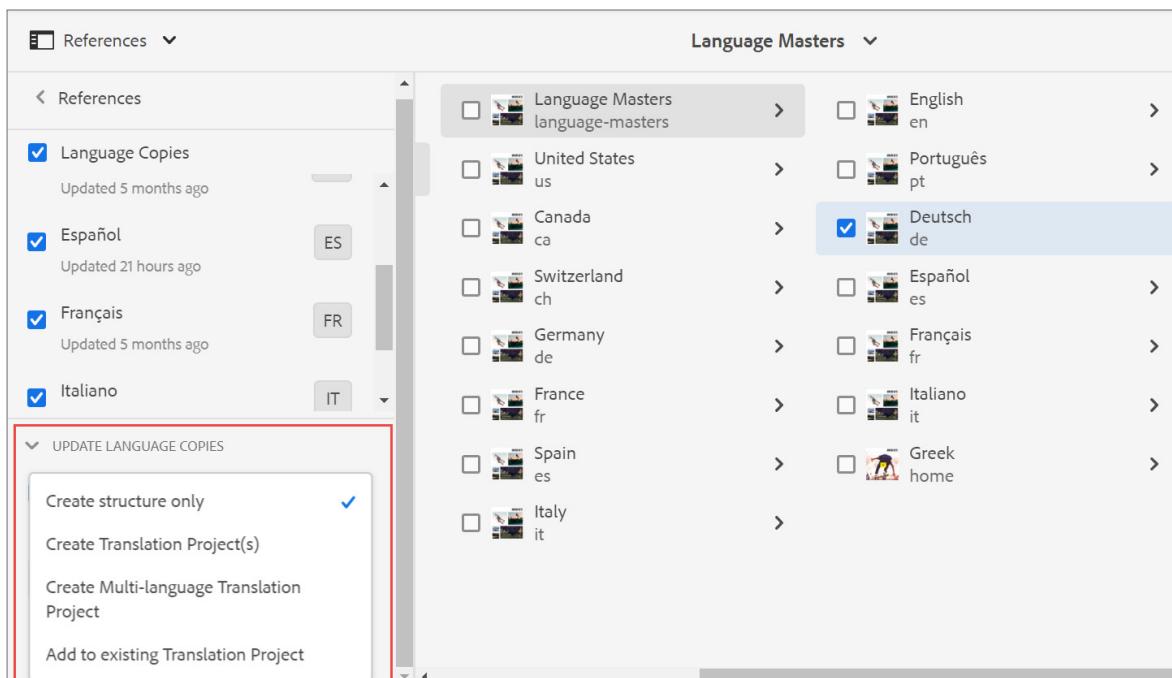
- Summary: Includes project information
- Translation Job: Includes resources for translation
- Tasks: Lists the tasks included in the job
- Team: Lists the team members

In a translation project, you can define several target languages that share the translation method and choose the language service provider.

You can find a list of preparation tasks in the **References** panel. These tasks enable you to create the translation projects easily and quickly.

You can choose from the following options available for both initial translation and updates, as shown:

- Create structure only
- Create Translation Projects(s)
- Create Multi-language Translation Projects
- Add to existing Translation Project



Create Content Structure Only

Before you start a translation process for a new content, you need to create the language copies of the pages with the pages from the language master that needs to be translated. Before you populate the language copies, ensure that a language root of the target language exists.

To create the content structure:

1. From the **Sites** console, select the language root of the language master that you are using as the source.
2. From the **References** panel, select the language copies that you want to populate.
3. Click **UPDATE LANGUAGE COPIES** to reveal the translation tools.
4. Select **Create structure only** project.
5. Click **Start**.

Create Translation Project(s)

When you create a translation project for a page and indicate the language copies that need to be translated, AEM checks whether a language copy already exists in the target language:

- If no language copy exists, AEM recognizes the situation as an initial translation. The source language page is automatically copied to the target language content hierarchy and added to a translation project.
- If the page in the target language already exists, AEM recognizes that there is an existing page with target language content and will enable an update of the earlier translation. AEM creates a launch, and a copy of the page is added to the launch. The launch copy of the page is included in a translation job. Launches provide a safe environment to make major content updates, such as translating the page content with the goal to reduce the risks of publishing process. If the process does not work as expected, launches perform the process in the following two ways:
 - When the translated content is imported into AEM, it overwrites the page in the launch and not the one that is productively used and published.
 - The translated page overwrites the production language copy only when the launch is promoted.

You need to create translation projects to execute and manage the workflow for translating a source content resource efficiently. The scope of a translation project is defined by a source content in one language and one or many target languages.

Each translation project can include only one translation method to exchange data, one language translation provider and one translation configuration. If you need to translate content with several language service providers, you need to create a project for each language service and each translation configuration combination.

You can specify if the child pages of the selected page must be translated too. In this case, the copies of the child pages are also added to each project and are translated. When any child pages are associated with different translation integration framework configurations, AEM creates additional projects. You can also manually create translation projects.

In the **References** panel, you can click the **Language Copies** menu to access the translation-related actions available for the selected page. At the bottom of the page, it indicates whether you are updating the existing language copies or creating the first version of the language copies. When a language copy exists for the selected page, the **UPDATE LANGUAGE COPIES** provides access to project-related commands. After translating, you can review the translation before overwriting the language copy with it.

When no language copy exists for the selected page, the **CREATE & TRANSLATE** button appears to provide a way to get started with content translation process.

You can perform the following actions on language copies in the **References** panel:

- **Reveal in Sites:** Opens the language copy in **Sites** console
- **Compare to Master:** Compares the content of the language copy with the language master
- **Go to Projects:** Opens the project in **Projects** console and helps review and promote the translated content

You can manually create a translation project from the **Projects** console. You must provide values for the following translation-related properties in addition to the basic properties:

- **Name:** The project name
- **Source Language:** The language of the source content
- **Target Language:** The language to which the content is translated to
- **Translation Method:** The method to be followed for translation. The **Human Translation** indicates that the translation will be performed manually.

Add to Existing Translation Project

After you create a translation project, you can add pages to the project. This is useful when you want to include pages from different branches in the same project.

To add pages to the project:

1. From the **Sites** console, select the page that you want to add to the translation project.
2. From the **References** panel, select the language copies for which you want to translate the source page.
3. Click **UPDATE LANGUAGE COPIES**, select either **Create Translate Project(s)**, **Create Multi-Language Translation Project**, or **Add to existing Translation Project**.
4. Click **Start**.

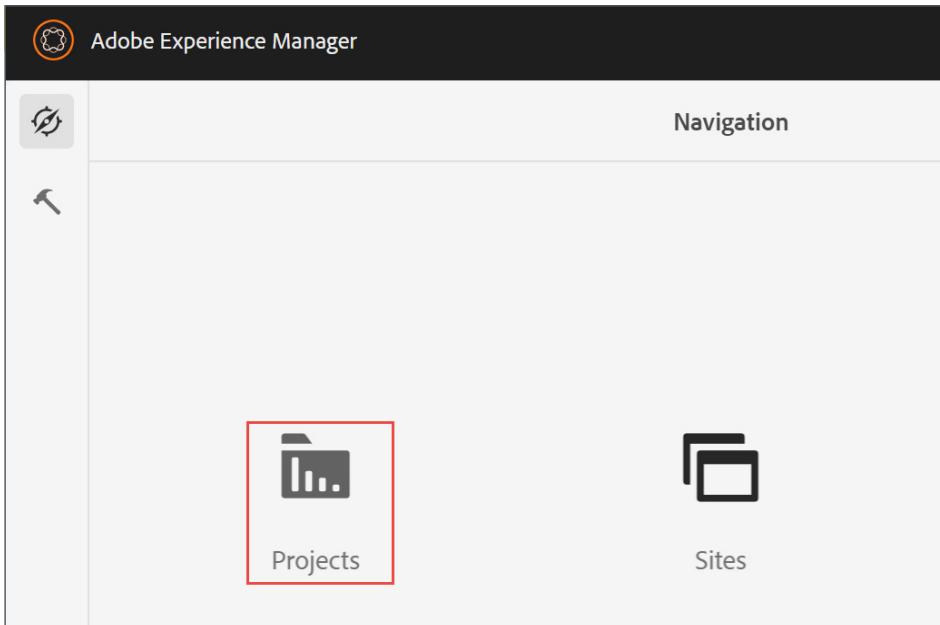
Exercise 4: Create a translation project

Scenario: As a content manager, you want to translate the English content of a website into Greek and Portuguese languages. The page hierarchies for both versions are already created. You want to use the translation workflow capability to assist the translation process of the content.

You need to create a translation project to support the translation process from English to the target languages.

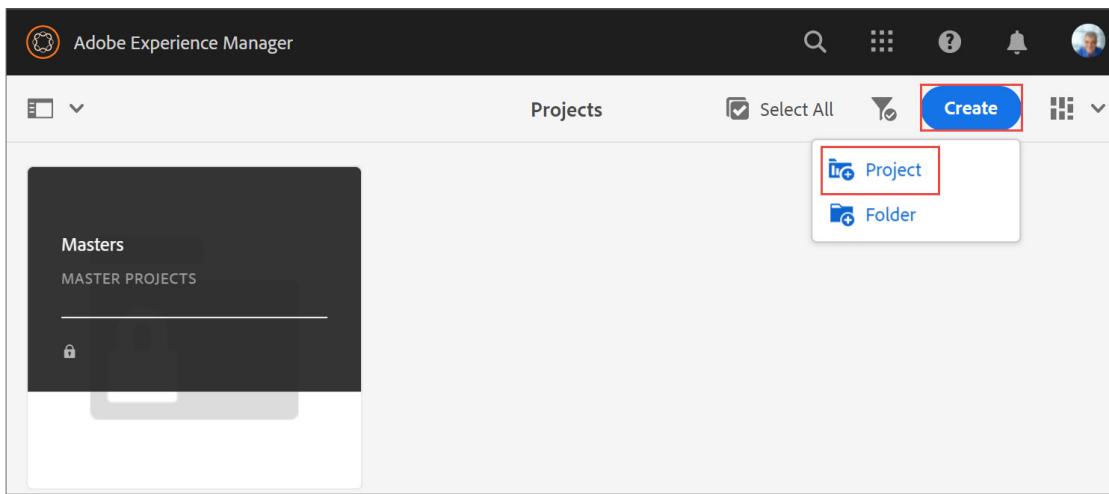
To create a translation project:

1. Click **Adobe Experience Manager** on the header bar.
2. Click **Projects** on the **Navigation** panel, as shown:



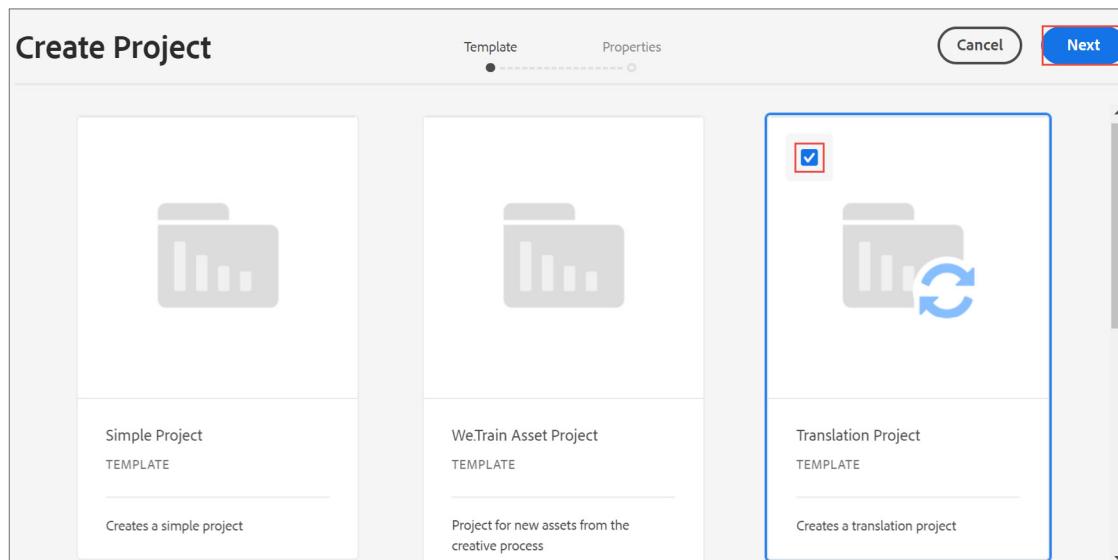
The **Projects** console opens.

3. Click **Create** on the actions bar and select **Project** from the drop-down menu, as shown:



The **Create Project** wizard opens.

4. In the **Template** section of the wizard, select the **Translation Project** template and click **Next**, as shown:



The **Properties** section of the **Create Project** wizard opens.

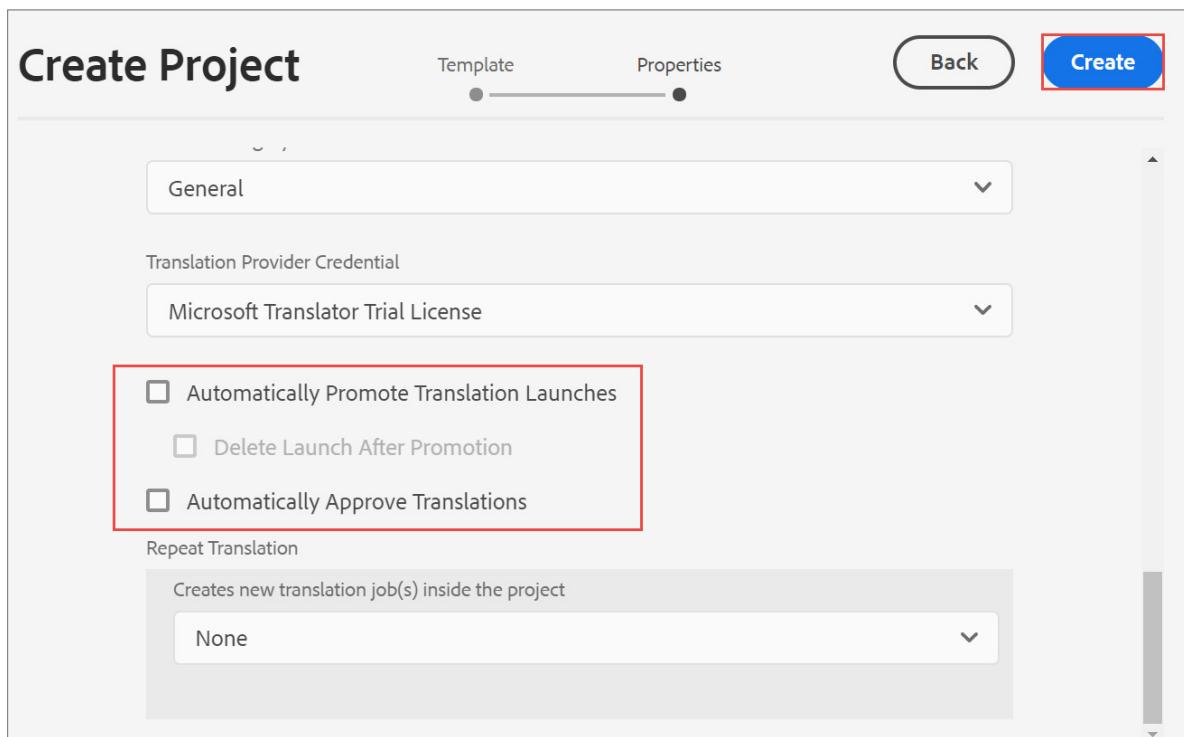
5. In the **Properties** section, ensure you are on the **Basic** tab and type **English to Greek and Portuguese** in the **Title** box, as shown:

The screenshot shows the 'Create Project' interface. At the top, there are tabs for 'Template' and 'Properties'. Below them, two tabs are shown: 'Basic' (which is selected) and 'Advanced'. A red box highlights the 'Title *' input field, which contains the text 'English to Greek and Portuguese'. At the bottom right are 'Back' and 'Create' buttons.

6. Click the **Advanced** tab to open it.
7. Select **Greek (el)** language from the **Target Language** drop-down menu. A tick mark appears next to Greek, which confirms that the **Greek** language is added.
8. Select **Portuguese (pt)** from the **Target Language** drop-down menu. The **Portuguese** language is added, as shown:

The screenshot shows the 'Create Project' interface with the 'Advanced' tab selected. Other fields visible include 'Name *' (containing 'english-to-greek-and-portuguese'), 'Source Language' (set to 'English (en)'), and a 'Target Language' dropdown which currently shows 'Select'. Below the dropdown, 'Greek (el)' and 'Portuguese (pt)' are listed with small 'X' icons to their right, indicating they have been selected. A red box highlights the 'Target Language' dropdown area.

9. Scroll down, clear the **Automatically Promote Translation Launches** and **Automatically Approve Translations** check boxes and click **Create**, as shown:



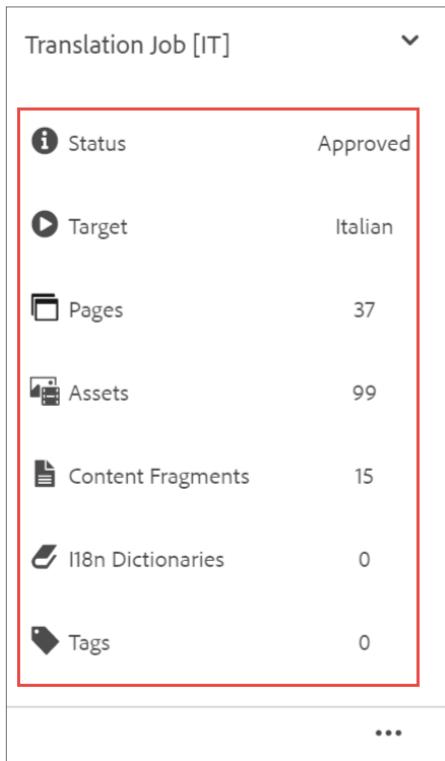
The **Success** dialog box opens.

10. Click **Open**. The **English to Greek and Portuguese** project opens.
 11. Notice that two translation jobs, **EL (Greek)** and **PT (Portuguese)**, are created for each language, as shown:

In the next exercise, you will use the translation job to start the translation process.

Translation Job

The Translation Job tile of a translation project provides the overall status of the translation process . On this tile, the number of resources involved are grouped by type, such as pages and assets, as shown:



You can perform the following actions on the translation job:

- Add pages, assets, tags or i18n dictionaries to the translation job
- Specify the due date before which the translation vendor needs to return the translated files. You can set the due date for the project and job.
- Scope a translation job to obtain an estimate of the cost of translation from your translation service provider.
- Start a translation job to translate the source pages to the target language. The translation is performed according to the property values set on the **Summary** tile.
- Cancel a translation job to halt the translation process and prevent the translation vendor from performing any further translations.
- Export the content of a translation job.
- Download the exported translation job content.
- Import the translated content into AEM.
- Accept or reject the translated content after it comes back from translation and is in **Ready for Review** state.
- Review and promote the translated content to a language copy in the **Ready to Review** state.
- Complete a translation job after you have reviewed the translated files from the vendor.

Translation Workflow States

As the translation workflow starts and progresses, you can view the different states of the workflow from the **Status** option on the **Translation Job** tile. The below table describes the different states of the workflow:

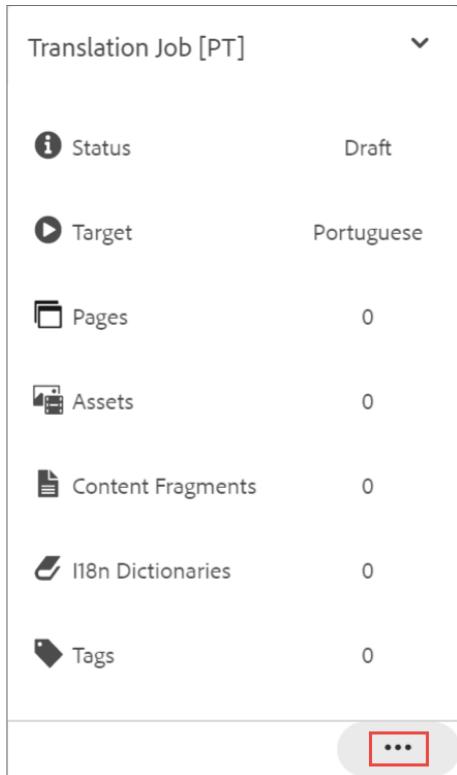
States	Description
Draft	The translation job is not started. Translation jobs are in DRAFT status when they are created.
Submitted	Files in the translation job have this status when they are successfully sent to the translation service. This status can occur after the Request Scope command or the Start command is issued.
Scope Requested	For the Human Translation workflow, the files in the job are submitted to the translation vendor for scoping. This status appears after the Request Scope command is issued.
Scope Completed	The vendor has scoped the translation job.
Committed for Translation	The project owner has accepted the scope. This status indicates that the translation vendor should start translating the files in the job.
Translation in Progress	The translation of one or more files in the job is not yet complete. For an item in the job, the item is being translated.
Translated	The translation of all files in the job is complete. For an item in the job, the item is translated.
Ready for Review	The item in the job is translated and the file is imported into AEM.
Complete	The project owner has indicated that the translation contract is complete.
Cancel	Indicates that the translation vendor should stop working on a translation job.
Error Update	An error has occurred when transferring files between AEM and the translation service.
Unknown State	An unknown error has occurred.

Exercise 5: Select pages for translation

Scenario: An author needs to translate English pages into Portuguese. A translation project exists already for this source to target language combination.

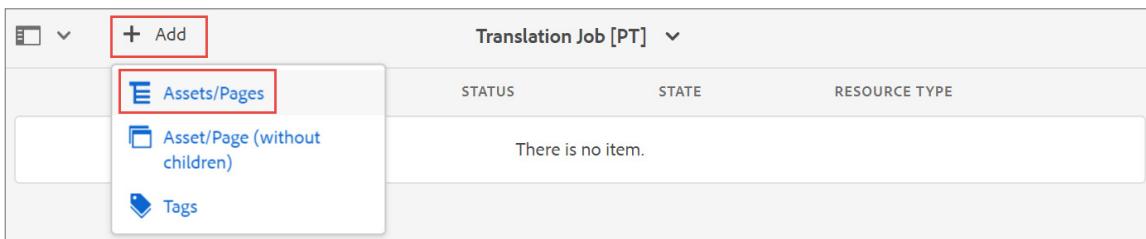
You need to add the relevant content to the correct translation job in the translation project.

1. From the **Projects** console, click **English to Greek and Portuguese** project to open it.
2. Click the **ellipsis** icon, as shown, at the bottom of the **Translation Job [PT]** tile.



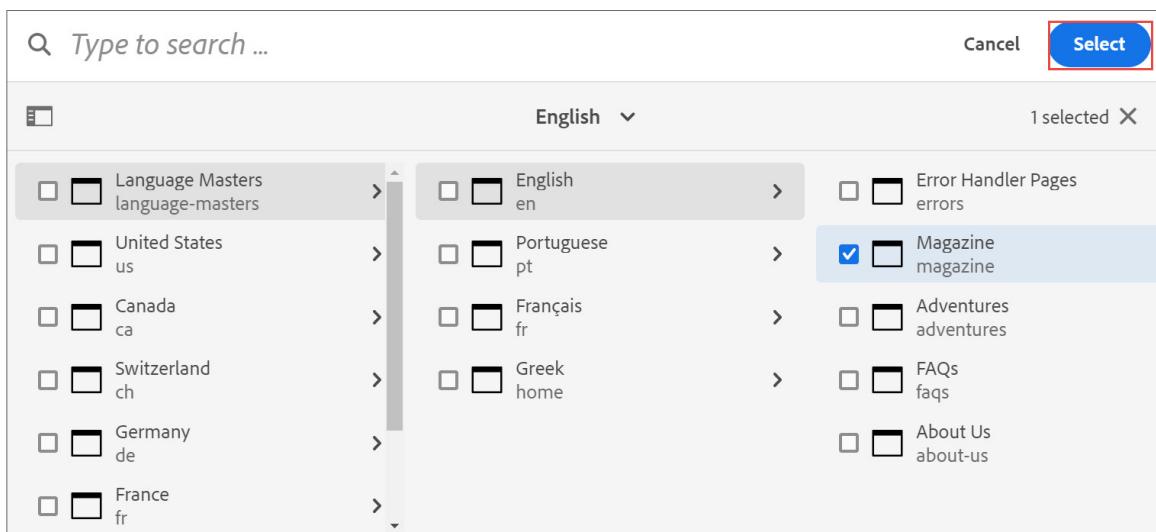
The **Translation Job [PT]** details page opens.

3. Click **Add** on the actions bar and select **Assets/Pages** from the drop-down menu, as shown:



A content dialog box with content structure opens.

4. Navigate to **WKND Site > Language Masters > English**, select the **Magazine** page and click **Select**, as shown:



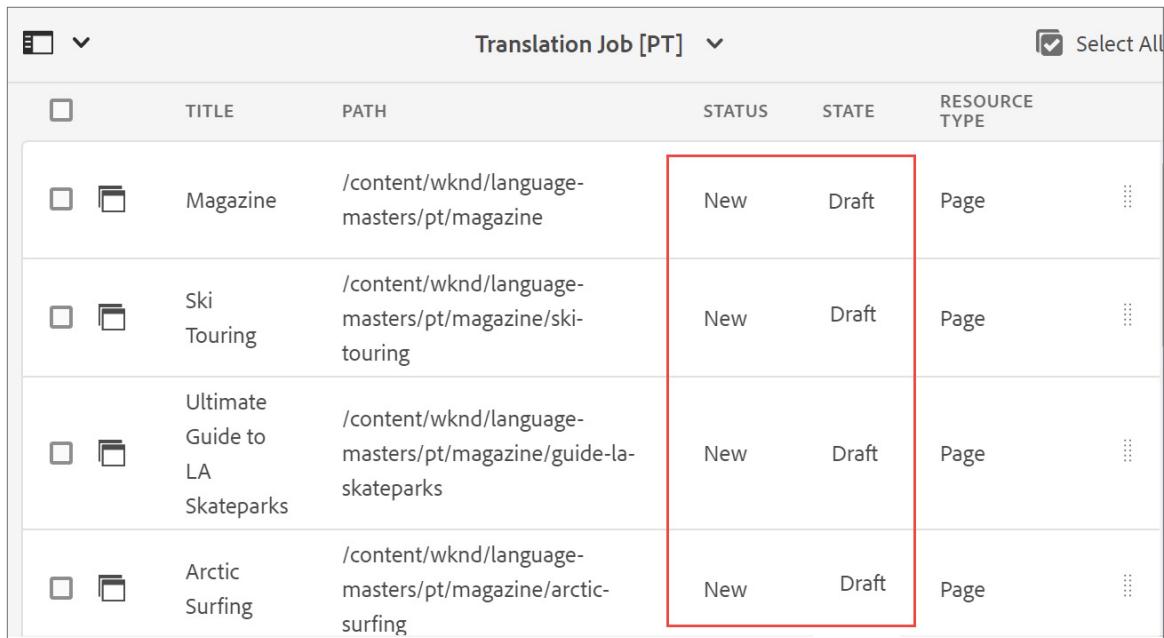
The **Translate** dialog box opens.

5. Click **Create Language Copy**, as shown:



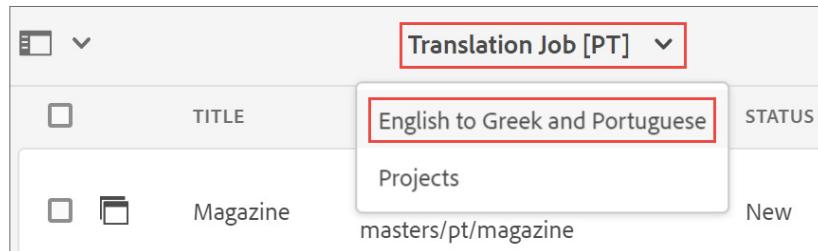
The **Magazine** pages and subpages are added to the **Translation Job [PT]**.

6. Notice that the **STATUS** is **New** because the pages are translated for the first time and the **STATE** is **Draft** because the translation job is not started, as shown:



<input type="checkbox"/>	TITLE	PATH	STATUS	STATE	RESOURCE TYPE	<input checked="" type="checkbox"/> Select All
<input type="checkbox"/>	Magazine	/content/wknd/language-masters/pt/magazine	New	Draft	Page	<input type="checkbox"/>
<input type="checkbox"/>	Ski Touring	/content/wknd/language-masters/pt/magazine/ski-touring	New	Draft	Page	<input type="checkbox"/>
<input type="checkbox"/>	Ultimate Guide to LA Skateparks	/content/wknd/language-masters/pt/magazine/guide-la-skateparks	New	Draft	Page	<input type="checkbox"/>
<input type="checkbox"/>	Arctic Surfing	/content/wknd/language-masters/pt/magazine/arctic-surfing	New	Draft	Page	<input type="checkbox"/>

7. Click **Translation Job [PT]** on the breadcrumb and select **English to Greek and Portuguese** from the drop-down menu, as shown, to open the project dashboard:

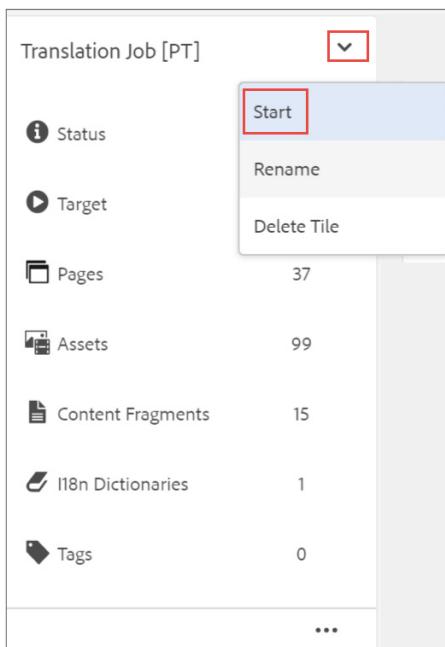


Exercise 6: Execute the translation

Scenario: You need to translate a website. You have a **Translation Job** with the content ready to be executed.

You need to start the **Translation Job** in the **Projects** console to execute the translation.

1. Ensure you are in the **English to Greek and Portuguese** project.
2. On the **Translation Job [PT]**, click the arrowhead and select **Start** from the drop-down menu, as shown:



The **Starting translation process** message appears at the bottom of the project.

3. Click the **ellipsis** icon at the bottom of the **Translation Job [PT]** tile. The **Translation Job [PT]** details page opens.

4. Observe the **STATE** changes from **Draft** to **Ready for review**, as shown:

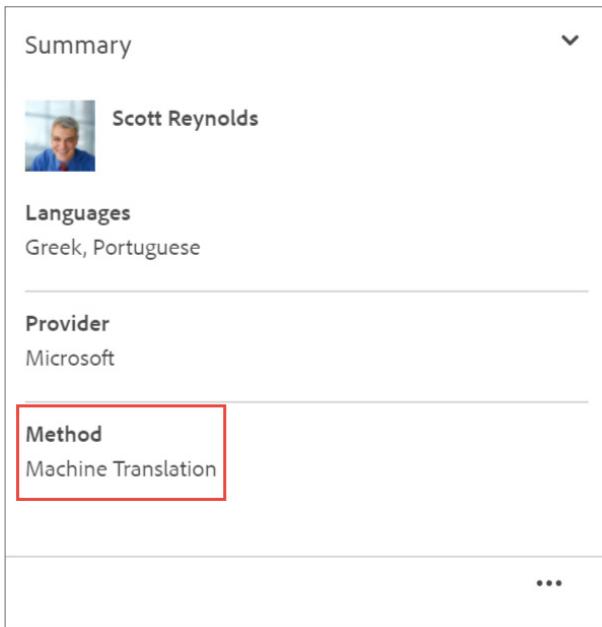
<input type="checkbox"/>	TITLE	PATH	STATUS	STATE	RESOURCE TYPE	<input checked="" type="checkbox"/> Select All
<input type="checkbox"/>	Magazine	/content/wknd/language-masters/pt/magazine	New	Ready for review	Page	<input type="checkbox"/>
<input type="checkbox"/>	Ski Touring	/content/wknd/language-masters/pt/magazine/ski-touring	New	Ready for review	Page	<input type="checkbox"/>
<input type="checkbox"/>	Ultimate Guide to LA Skateparks	/content/wknd/language-masters/pt/magazine/guide-la-skateparks	New	Ready for review	Page	<input type="checkbox"/>
<input type="checkbox"/>	Arctic Surfing	/content/wknd/language-masters/pt/magazine/arctic-surfing	New	Ready for review	Page	<input type="checkbox"/>



Note: If you do not see the **STATE** as **Ready for review**, refresh the page and it might take a few seconds for the **STATE** to be updated.

5. Click **Translation Job [PT]** on the breadcrumb and select **English to Greek and Portuguese** from the drop-down menu to open the project dashboard.

6. On the **Summary** tile, notice that the **Machine Translation** method is configured for this translation project, as shown, and, therefore, the Machine Translation method translates the page automatically.



The screenshot shows a summary card for a project. At the top is a profile picture of Scott Reynolds. Below it, the name "Scott Reynolds" is displayed. The card is divided into sections: "Languages" (Greek, Portuguese), "Provider" (Microsoft), and "Method" (Machine Translation). The "Method" section is highlighted with a red border. At the bottom right of the card is a three-dot ellipsis (...).

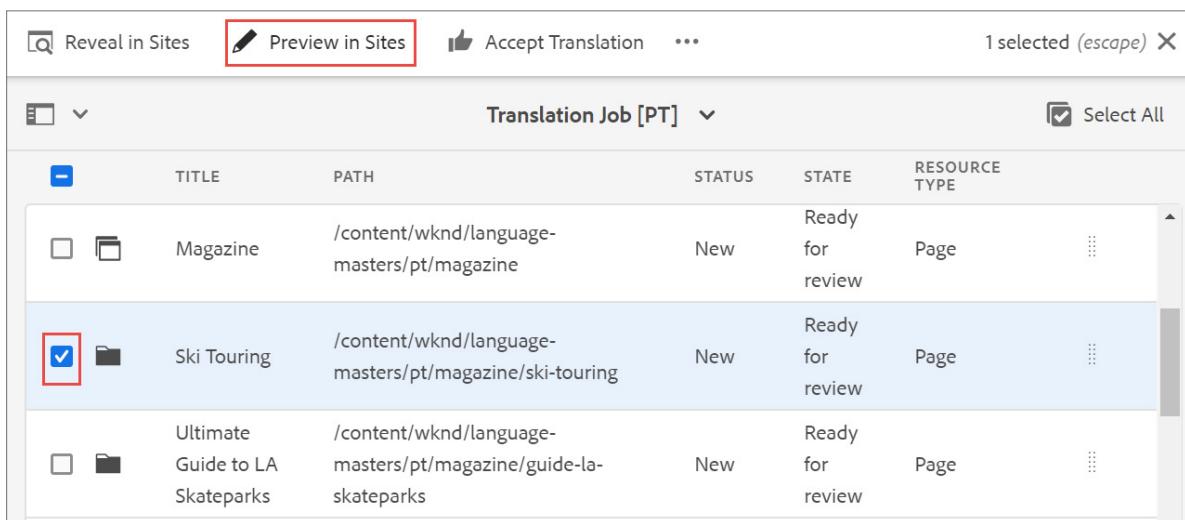
Summary
 Scott Reynolds
Languages Greek, Portuguese
Provider Microsoft
Method Machine Translation
...

Exercise 7: Review translated pages

Scenario: A website is translated into the target language. The translated content needs a review before you can use it in production.

You need to review the translation and approve or reject the pages.

1. Ensure you are in the **English to Greek and Portuguese** project.
2. Click the **ellipsis** icon at the bottom of the **Translation Job [PT]** tile. The **Translation Job [PT]** details page opens.
3. Select the **Ski Touring** check box and click **Preview in Sites** on the actions bar, as shown:



ICON	TITLE	PATH	STATUS	STATE	RESOURCE TYPE
<input type="checkbox"/>	Magazine	/content/wknd/language-masters/pt/magazine	New	Ready for review	Page
<input checked="" type="checkbox"/>	Ski Touring	/content/wknd/language-masters/pt/magazine/ski-touring	New	Ready for review	Page
<input type="checkbox"/>	Ultimate Guide to LA Skateparks	/content/wknd/language-masters/pt/magazine/guide-la-skateparks	New	Ready for review	Page

The **Ski Touring** page opens on a new tab of the browser.

4. Scroll down the page and review the translated page content, as shown:

Passeio de esqui

POR SOFIA SJÖBERG

Drag components here

Minha mochila parece mais pesada para cada metro, lentamente deformando minha coluna e desgastando meus ombros. Minha boca tem gosto de sangue, enquanto pérolas salgadas de suor encontram seu caminho para os meus olhos. Eu olho para trás, eu não estou lá ainda, apenas mais algumas centenas de passos, continuar andando, continuar contando, bloquear a dor. Ao balançar

PONTOS DE SURFE DE SAN DIEGO
MONDAY, 25 MAY 2020

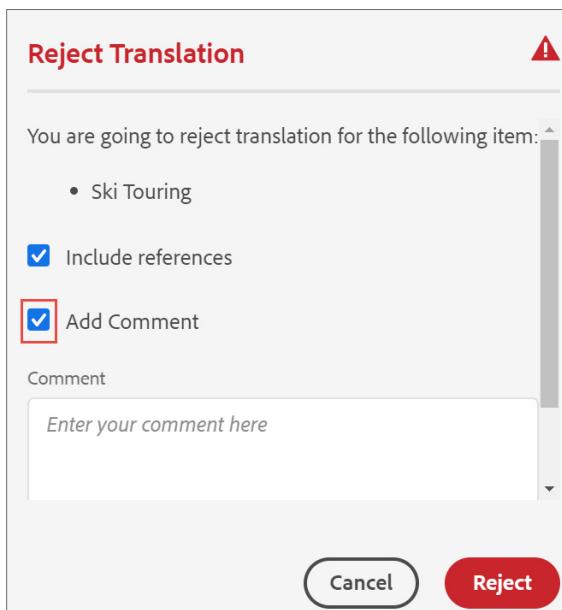
SOMENTE MEMBROS
MONDAY, 25 MAY 2020

5. Click the **Translation Job [PT] | Translation Job** tab of the browser to open it.
6. Clear the **Ski Touring** check box.
7. If you want to reject the translated content, select the **Tags Metadata** check box and click **Reject Translation** on the actions bar, as shown:

	TITLE	PATH	STATUS	STATE	RESOURCE TYPE
<input type="checkbox"/>	Only	/content/wknd/language-masters/pt/magazine/members-only	review		
<input type="checkbox"/>	Alaskan Adventure	/content/wknd/language-masters/pt/magazine/members-only/alaskan-adventure	New	Ready for review	Page
<input type="checkbox"/>	Fly Fishing the Amazon	/content/wknd/language-masters/pt/magazine/members-only/fly-fishing-the-amazon	New	Ready for review	Page
<input type="checkbox"/>	San Diego Surf Spots	/content/wknd/language-masters/pt/magazine/san-diego-surf	New	Ready for review	Page
<input checked="" type="checkbox"/>	Tags Metadata		New	Ready for review	Tags Metadata

The **Reject Translation** dialog box opens.

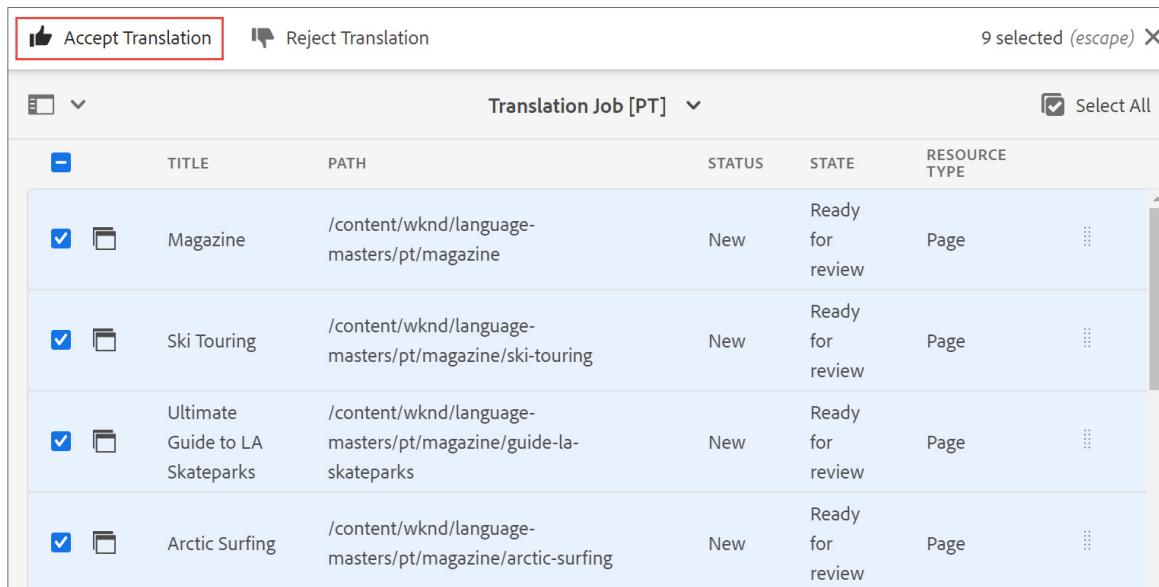
8. Select the **Add Comment** check box, as shown:



The **Comment** box opens.

9. Type the reason for rejecting the translated content in the **Comment** box and click **Reject**. The **Translation Rejected** message appears at the bottom of the page. The rejected content is sent back to your translation vendor with the comment.
10. To accept all translated pages, **Select All** check box beside the **TITLE** column. All pages are selected.

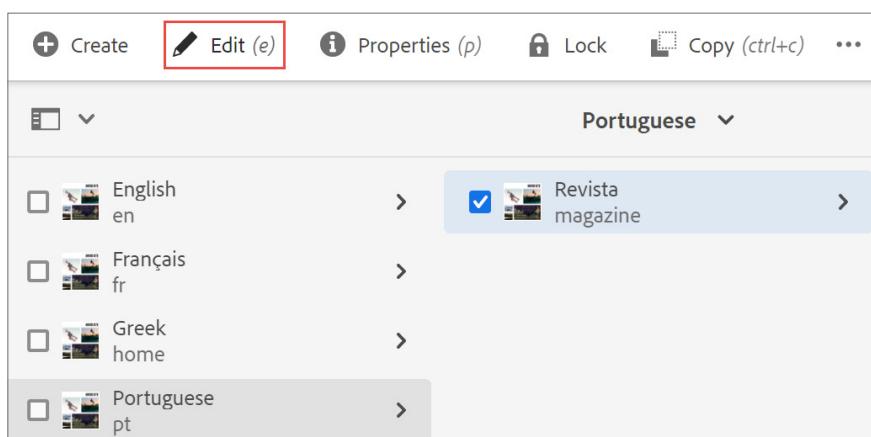
11. Clear the **Tags Metadata** check box because you have rejected it in step 8 and click **Accept Translation** on the actions bar, as shown:



The screenshot shows a table titled "Translation Job [PT]". The columns are: TITLE, PATH, STATUS, STATE, and RESOURCE TYPE. There are four rows, each with a checkbox and a file icon next to the title. The titles are: Magazine, Ski Touring, Ultimate Guide to LA Skateparks, and Arctic Surfing. The paths are: /content/wknd/language-masters/pt/magazine, /content/wknd/language-masters/pt/magazine/ski-touring, /content/wknd/language-masters/pt/magazine/guide-la-skateparks, and /content/wknd/language-masters/pt/magazine/arctic-surfing. The status is "New" for all. The state is "Ready for review" for all. The resource type is "Page" for all. At the top of the table, there are two buttons: "Accept Translation" (highlighted with a red box) and "Reject Translation". To the right, there is a "Select All" checkbox and a count "9 selected (escape) X".

The **Accept Translation** dialog box opens.

12. Click **Accept**. The **Translation accepted** message appears at the bottom of the page.
13. Notice that the **STATE** is changed to **Approved**.
14. Click **Adobe Experience Manager** on the header bar. The **Navigation** panel opens.
15. Click **Sites** to open the **Sites** console.
16. Navigate to the **WKND Site > Language Masters > Portuguese**, select the **Revista** page and click **Edit (e)** on the actions bar, as shown:



The screenshot shows the "Language Masters" section for "Portuguese". It lists four language variants: English (en), Français (fr), Greek (home), and Portuguese (pt). The "Revista magazine" page is selected, indicated by a blue highlight and a checked checkbox. At the top, there is a toolbar with buttons for "Create", "Edit (e)" (highlighted with a red box), "Properties (p)", "Lock", "Copy (ctrl+c)", and "...".

The **Revista** page opens on a new tab of the browser.

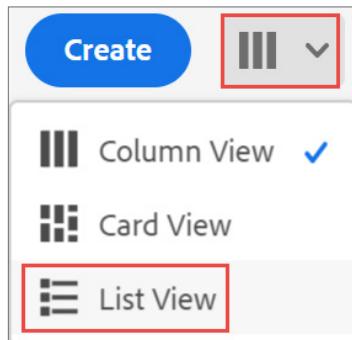
17. Notice that the content of the **Magazine** page is in Portuguese language, as shown:

The screenshot shows a browser window with the title bar "REVISTA". The main content area has a header "Revista" and a section titled "Austrália Ocidental". The text in the section is in Portuguese: "A costa oeste australiana é o paraíso de um campista. Quilômetros intermináveis de estradas desertas que levam a praias secretas, vastos cânions e rios cristalinos, e as poucas pessoas que você provavelmente encontrará em sua jornada serão alguns dos personagens mais fáceis que você encontrará em qualquer lugar do mundo." To the right of the text is a large, scenic photograph of a river flowing through a valley with tall, rocky cliffs under a clear sky.

18. Click the **Portuguese | AEM Sites** tab of the browser to open the **Sites** console.

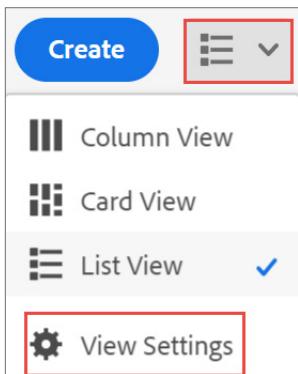
19. Clear the **Revista** check box.

20. Click the **View Switcher** icon on the actions bar and select **List View** from the drop-down menu, as shown:



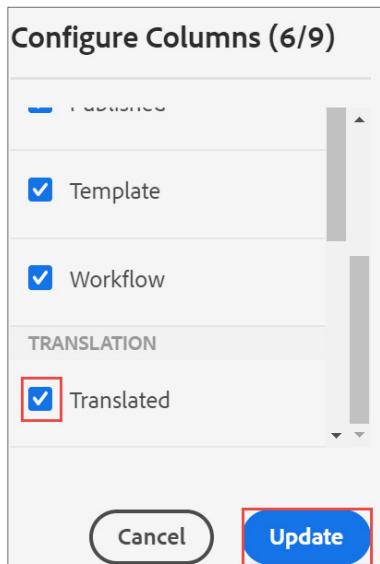
The **Column View** changes to the **List View**.

21. Click the **View Switcher** icon on the actions bar and select **Viewer Settings** from the drop-down menu, as shown:



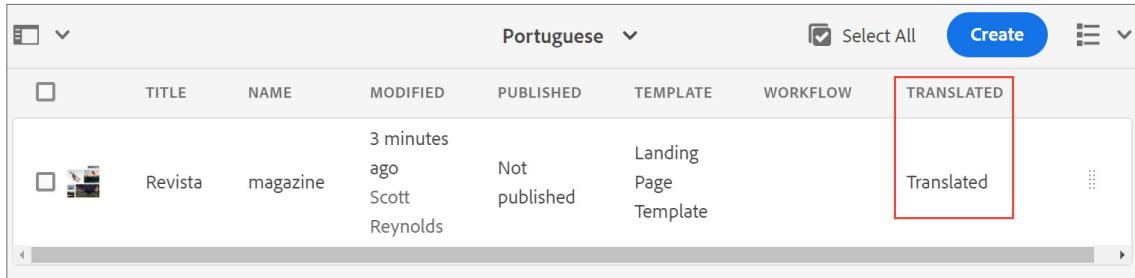
The **Configure Columns (6/9)** dialog box opens.

22. Select the **Translated** check box and click **Update**, as shown:



 **Note:** In the **Configure Columns (6/9)** dialog box if the **Translated** check box is disabled, clear few column check boxes in the dialog box, and then click **Update**.

23. Notice that the **TRANSLATED** column appears along with the existing columns, as shown:



	TITLE	NAME	MODIFIED	PUBLISHED	TEMPLATE	WORKFLOW	TRANSLATED
<input type="checkbox"/>	Revista magazine	Scott Reynolds	3 minutes ago	Not published	Landing Page Template		Translated

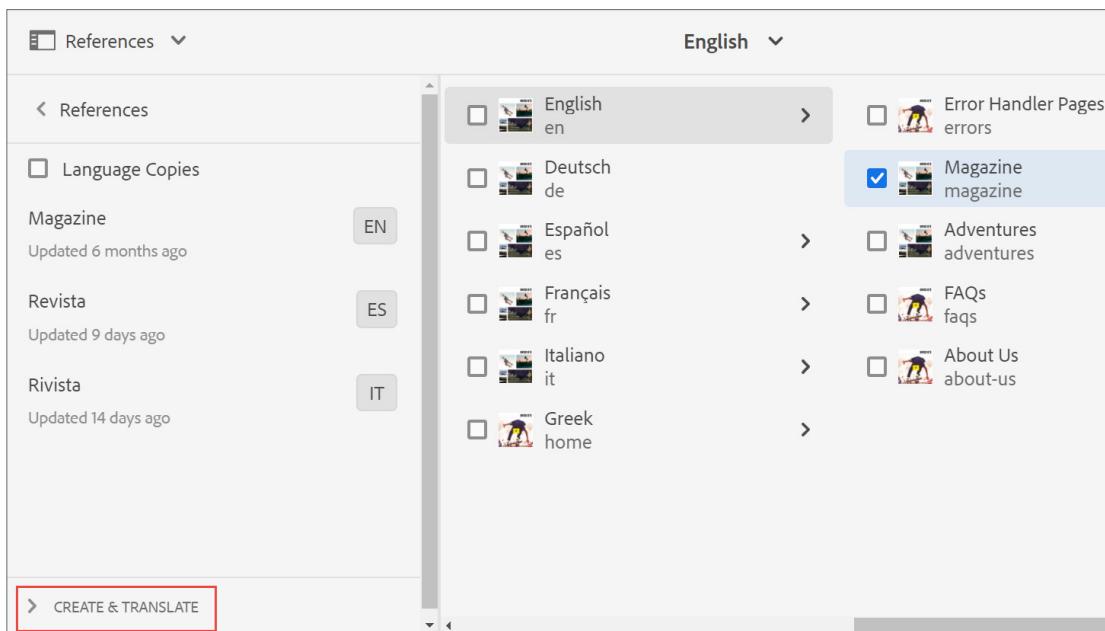
24. Click the **View Switcher** icon on the actions bar and select **Column View** from the drop-down menu to switch the view back to **Column View**.

Exercise 8: Select the content for translation in the Sites console

Scenario: An author wants a quick way to submit pages for translation and approve the translated pages automatically.

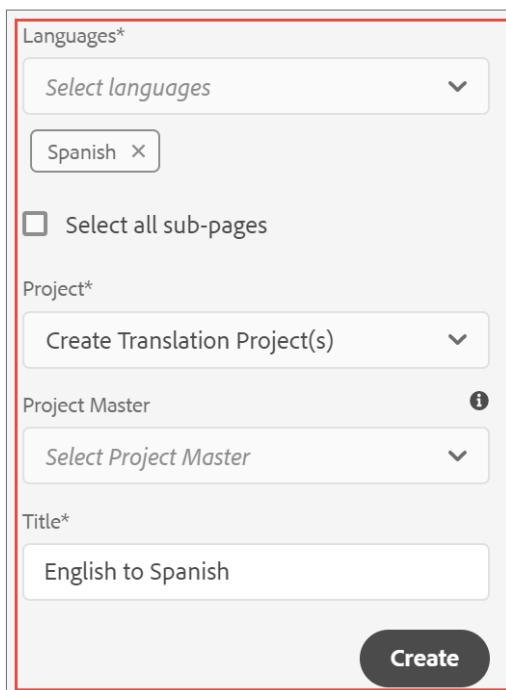
You can use the **References** panel to select pages and create a translation project.

1. From the **Sites** console, navigate to the **WKND Site > Language Masters > English** and select the **Magazine** page.
2. Click the rail selector icon on the actions bar. The drop-down menu appears.
3. Select **References** from the drop-down menu. The **References** panel opens.
4. Click **Language Copies (2)** in the panel. The language copies appear in the panel.
5. Click **CREATE & TRANSLATE** at the bottom of the panel, as shown:



The **CREATE & TRANSLATE** panel expands.

6. In the **CREATE & TRANSLATE** panel, perform the following tasks, as shown:
 - a. Select **Spanish** from the **Languages** drop-down menu.
 - b. Clear the **Select all sub-pages** check box.
 - c. Select **Create Translation Project(s)** from the **Project** drop-down menu.
 - d. Type **English to Spanish** in the **Title** box.
 - e. Click **Create**.



The **Translation project created (es)** message appears at the bottom of the page.

7. Click **1 selected x** at the top-right corner of the actions bar to clear the selected page.
8. Click **Adobe Experience Manager** on the header bar.
9. Click **Projects** on the **Navigation** panel. The **Projects** console opens.
10. Observe that an **English to Spanish** project folder is created.
11. Click the **English to Spanish** folder to open it.
12. Click the **English to Spanish [ES] PROJECT** card to view the dashboard.
13. On the **Summary** tile, click the **ellipsis** icon at the bottom. The **Translation Project Properties** wizard opens.
14. Click the **Advanced** tab to open it.
15. Scroll down and notice that the **Automatically Approve Translations** check box is selected for this project.
16. Click **Cancel** to close the wizard.

17. On the **Translation Job [IT]**, click the arrowhead and select **Start** from the drop-down menu. The **Starting translation process** message appears at the bottom of the project.
18. Click the ellipsis icon at the bottom of the **Translation Job [ES]** tile. The **Translation Job [ES]** page opens.
19. Notice that the content is translated to Spanish and the **STATE** is **Approved**, as shown, because the **Automatically Approve Translations** check box is selected:

	TITLE	PATH	STATUS	STATE	RESOURCE TYPE
<input type="checkbox"/>	Magazine	/content/wknd/language-masters/es/magazine	New	Approved	Page
<input type="checkbox"/>	Tags Metadata		New	Approved	Tags Metadata

20. Click **Adobe Experience Manager** on the header bar.
21. Click **Sites** on the **Navigation** panel. The **Sites** console opens.
22. Navigate to the **WKND Site > Language Masters > Espanol**, select the **Revista** page and click **Edit (e)** on the actions bar. The page opens on a new tab of the browser.
23. Scroll down the page and notice that the page content is translated to Spanish, as shown:

The screenshot shows the AEM Revista page with two articles. The first article, titled "AVVENTURA EN ALASKA", features a photo of a bear catching salmon and includes the text "DESCUBRE EL ESTADO 49" and a "Leer más" button. The second article, titled "PESCA CON MOSCA EN EL AMAZONAS", features a photo of a riverbank and includes the text "EXPERIMENTA EL AMAZONAS COMO NUNCA ANTES" and a "Leer más" button.

24. Open the **Espanol | AEM Sites** tab of the browser.
25. Clear the **Revista** check box.

Exercise 9: Update an existing language copy

Scenario: As an author, you have updated the English website. You want to translate the updated content and apply it to the existing language copies.

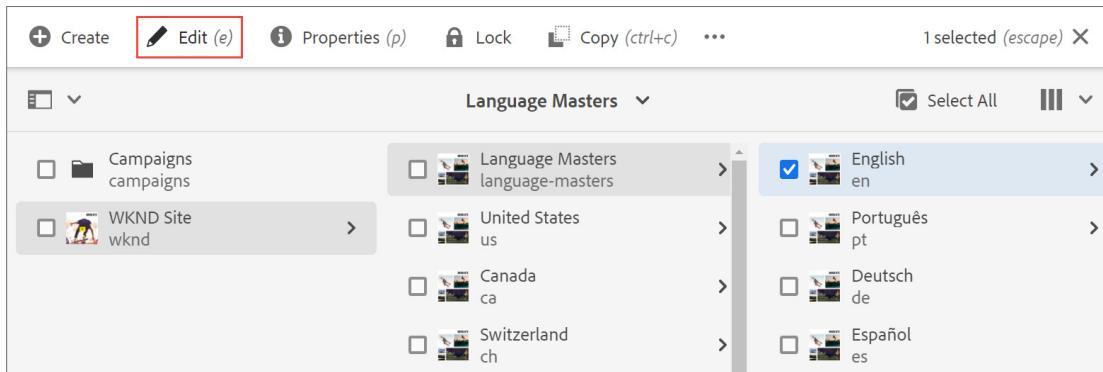
You need to perform the following tasks:

1. Update a language copy and add the changes to a translation project
2. Promote the launch language copy and complete the translation job

Task 1: Update a language copy and add the changes to the translation project

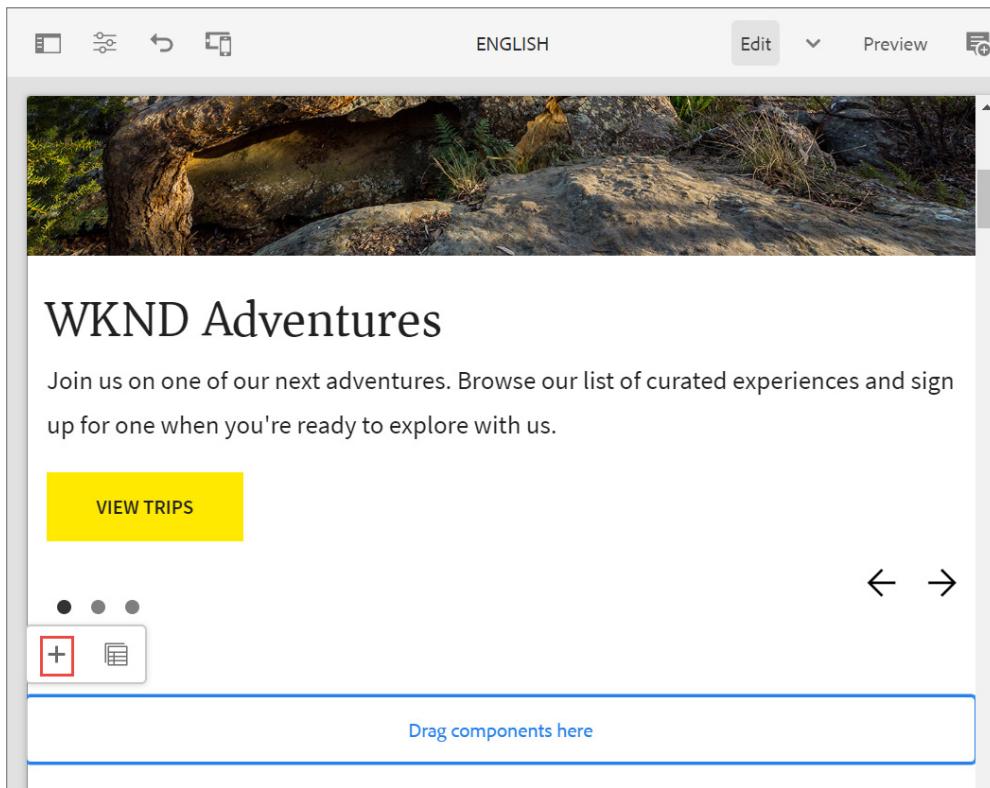
To update a language copy:

1. From the **Sites** console, navigate to the **WKND Site > Language Masters**, select the **English** page and click **Edit (e)** on the actions bar, as shown:



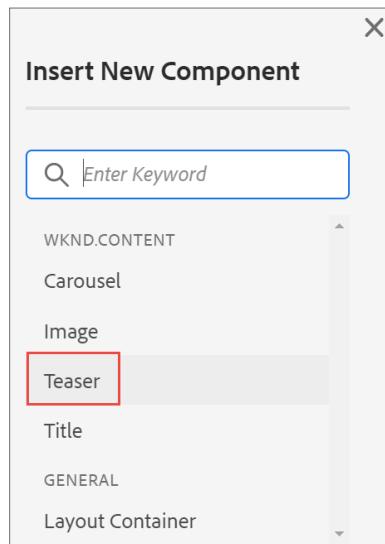
The page opens on a new tab of the browser.

2. Look for the **Drag components here** section on the page and click the **Insert component (+)** icon on the component toolbar, as shown:



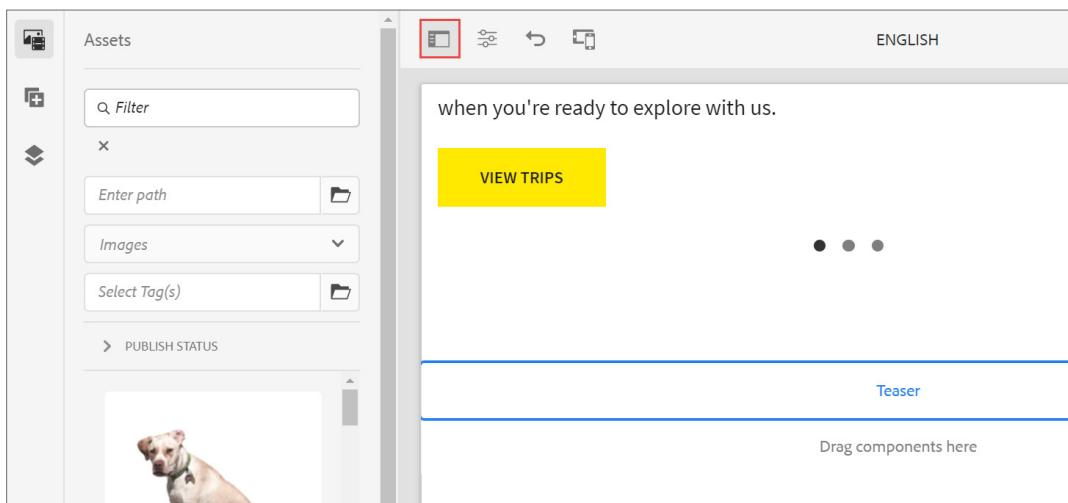
The **Insert New Component** dialog box opens.

3. Select the **Teaser** component from the drop-down menu, as shown:



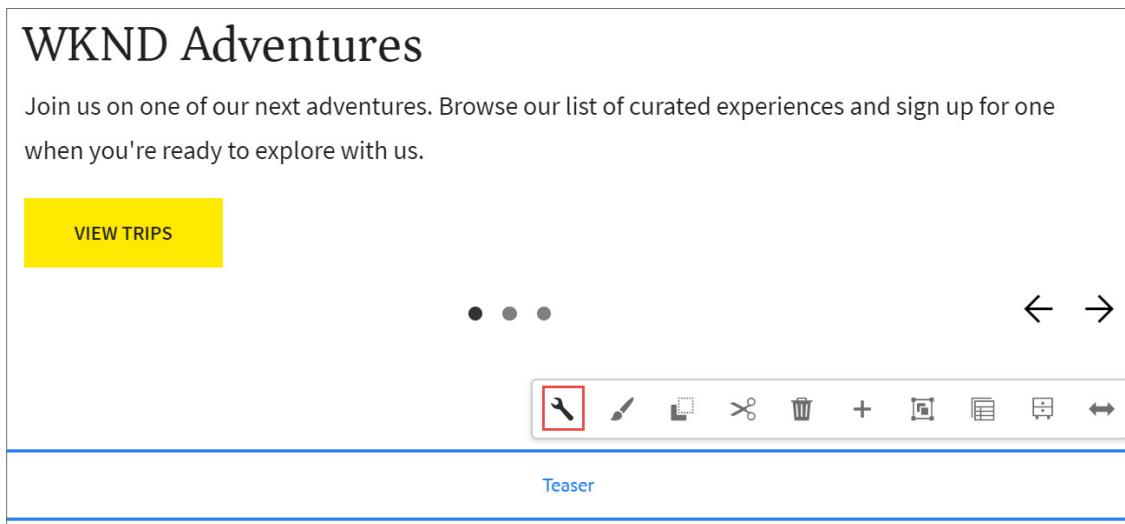
The **Teaser** component is added to the page.

4. Click the **Toggle Side Panel** icon on the page toolbar, as shown:



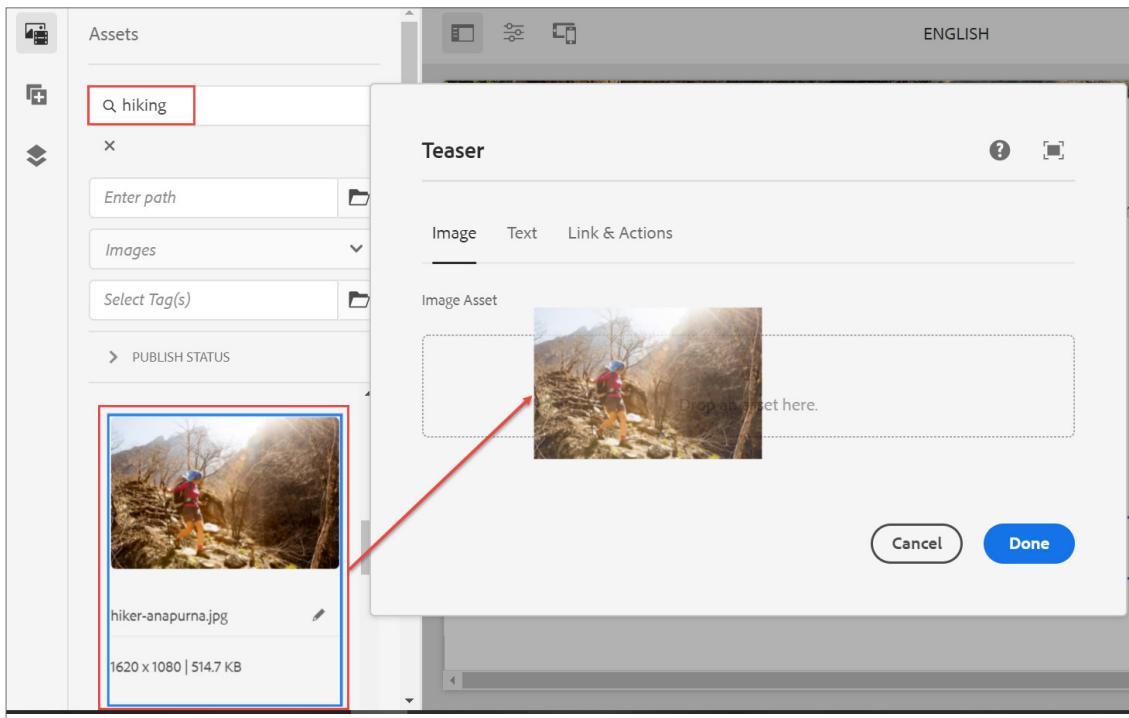
The **Assets** panel opens.

- Type **hiking** in the **Filter** box and press Enter. All images related to hiking appear in the panel.
- Click the **Teaser** component and click the **Configure** (wrench) icon on the component toolbar, as shown:



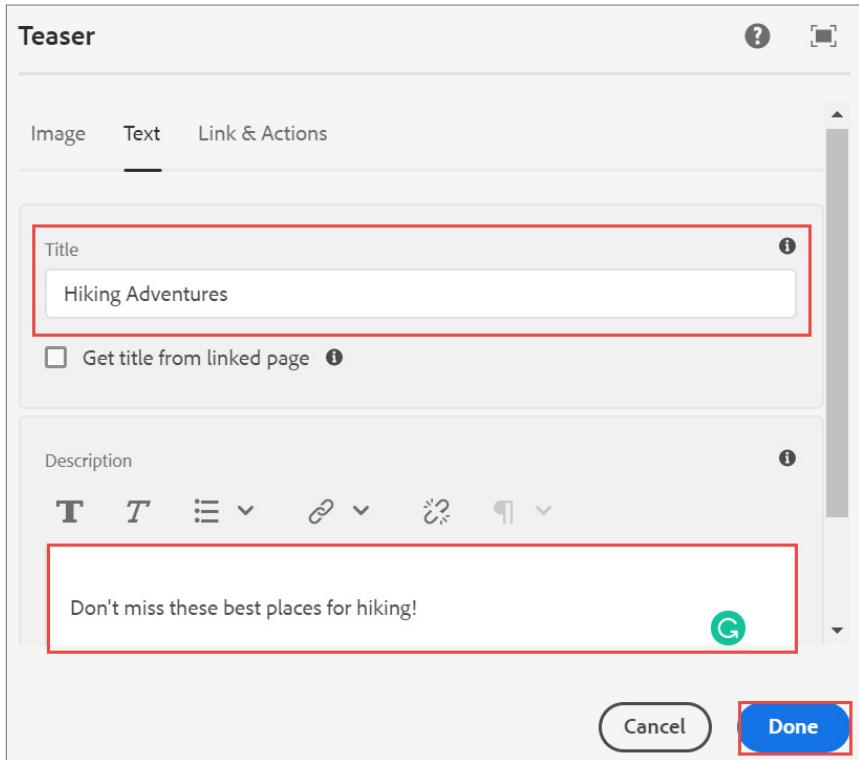
The **Teaser** dialog box opens.

7. Ensure you are on the **Image** tab, and drag any hiking image from the **Assets** panel onto the **Image Asset** placeholder, as shown. For example, **hiker-anapurna.jpg**:

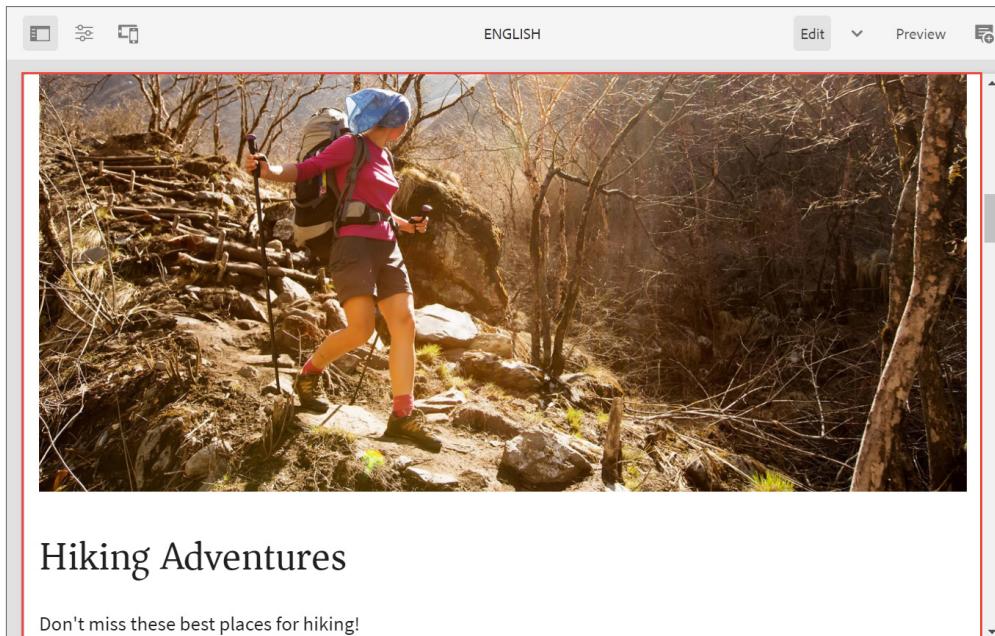


The selected image is added to the **Image** tab.

8. Click the **Text** tab and perform the following tasks:
- Type **Hiking Adventures** in the **Title** box
 - Type **Don't miss these best places for hiking!** in the **Description** box
 - Click **Done**, as shown:

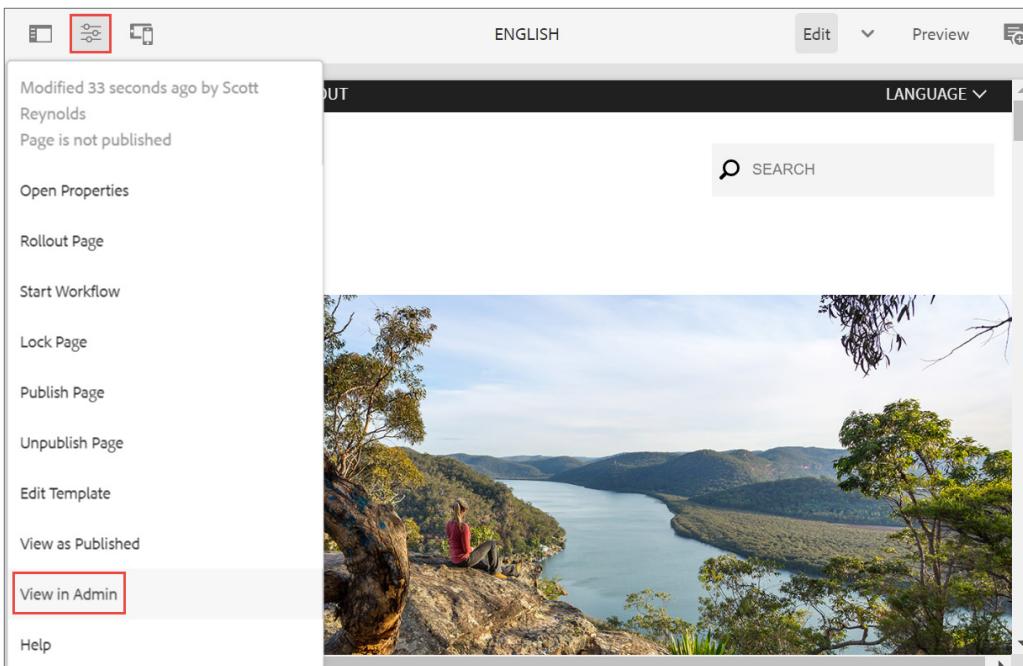


The **Teaser** component is updated with the specified details and looks similar to the one in the below screenshot:



To add the updated language copy to a translation project:

9. Click the **Page Information** icon on the page toolbar and select **View in Admin** from the drop-down menu, as shown:



The **Sites** console opens.

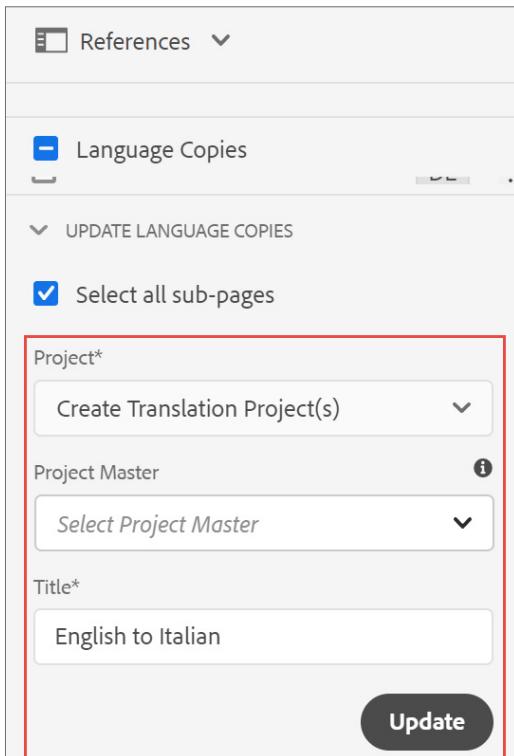
10. Ensure the **English** page is selected and click the rail selector icon on the actions bar. The drop-down menu appears.
11. Select **References** from the drop-down menu. The **References** panel opens.
12. Click **Language Copies (7)** in the panel. The language copies appear in the panel.
13. Select the **Language Copies** check box. All language copies are selected.

14. Clear all check boxes except the **Italiano** check box and click **UPDATE LANGUAGE COPIES** at the bottom of the panel, as shown:

The screenshot shows the AEM interface with the 'Language Masters' panel open. On the left, the 'Language Copies' section is expanded, listing various languages: Español, Français, Italiano (which has a red border around its checkbox), and Greek. The 'Italiano' checkbox is checked. At the bottom of this panel is a button labeled 'UPDATE LANGUAGE COPIES' with a red border around it. On the right, the 'Language Masters' section lists several language variants: English (en), Portuguese (pt), Deutsch (de), Español (es), Français (fr), Italiano (it), and Greek (home). The 'English (en)' checkbox is also checked. The 'Select All' checkbox is checked at the top right of the panel.

The **UPDATE LANGUAGE COPIES** panel is expanded.

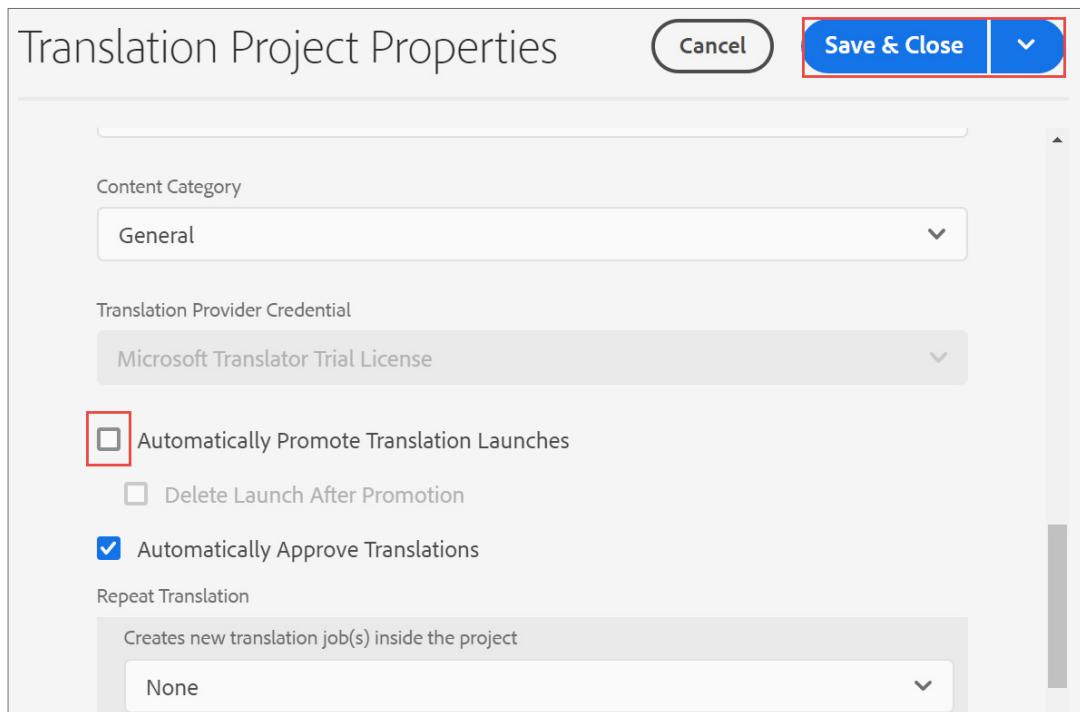
15. In the **UPDATE LANGUAGE COPIES** panel, perform the following tasks, as shown:
- Ensure the **Select all sub-pages** check box is selected.
 - Select **Create Translation Project(s)** from the **Project** drop-down menu.
 - Type **English to Italian** in the **Title** box.
 - Click **Update**.



The new translation project is created.

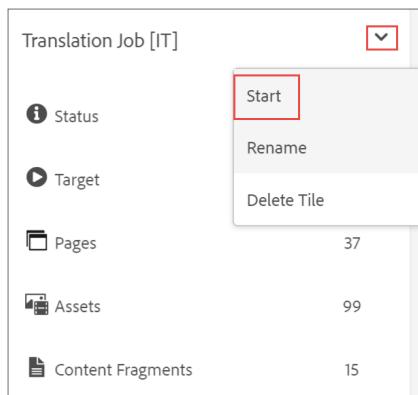
- Click **1 selected x** at the top-right corner of the actions bar to clear the selected page.
- Click **Adobe Experience Manager** on the header bar.
- Click **Projects** on the **Navigation** panel. The **Projects** console opens.
- Observe that an **English to Italian** folder is created as a result of step 15.
- Click the **English to Italian** folder to open it.
- Click the **English to Italian [IT] PROJECT** card to view the dashboard.
- On the **Summary** tile, click the **ellipsis** icon at the bottom. The **Translation Project Properties** wizard opens.
- Click the **Advanced** tab to open it.

24. Scroll down and clear the **Automatically Promote Translation Launches** check box and click **Save & Close**, as shown:



The form has been submitted successfully message appears at the bottom of the dashboard.

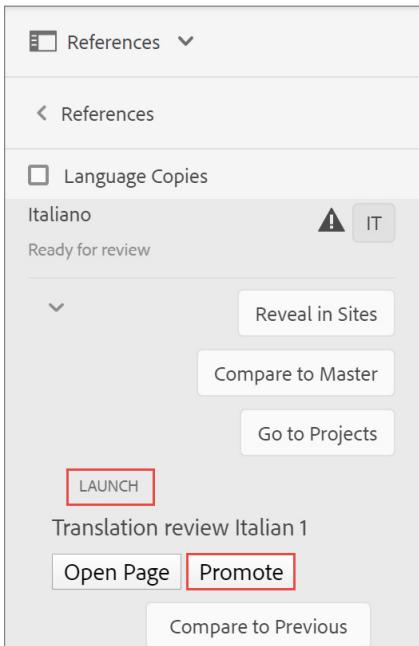
25. On the **Translation Job [IT]**, click the arrowhead and select **Start** from the drop-down menu, as shown:



The Starting translation process message appears at the bottom of the project.

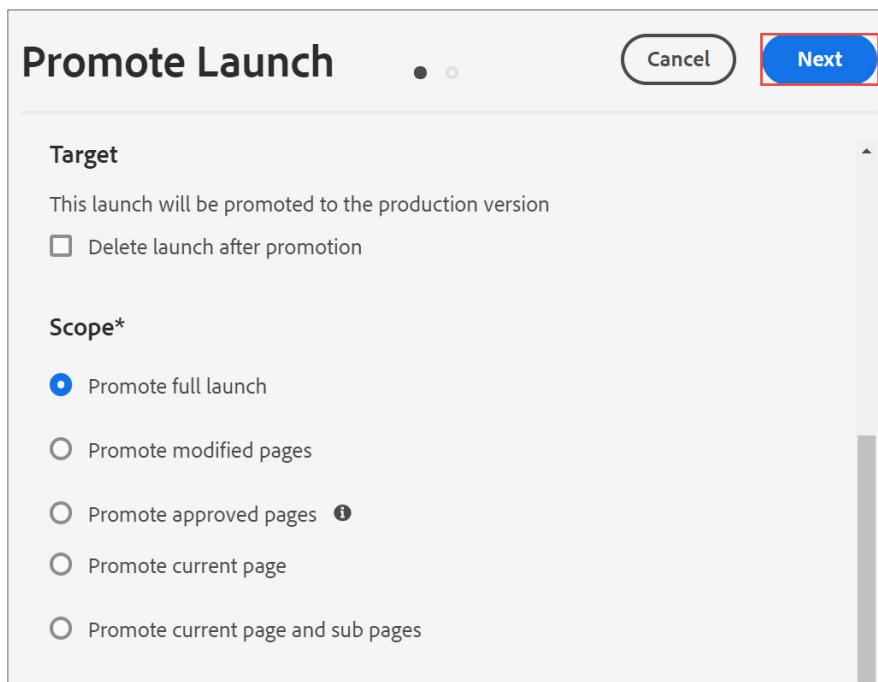
Task 2: Promote the launch language copy and complete the translation job

1. Click **Adobe Experience Manager** from the header bar.
2. Click **Sites** on the **Navigation** panel. The **Sites** console opens.
3. Navigate to the **WKND Site > Language Masters** and select the **English** page.
4. Click the rail selector icon on the actions bar. The drop-down menu appears.
5. Select **References** from the drop-down menu. The **References** panel opens.
6. Click **Language Copies (7)** in the panel. The language copies appear in the panel.
7. Click **Italiano** language copy to expand and view the available options.
8. Click **LAUNCH** and click **Promote**, as shown:



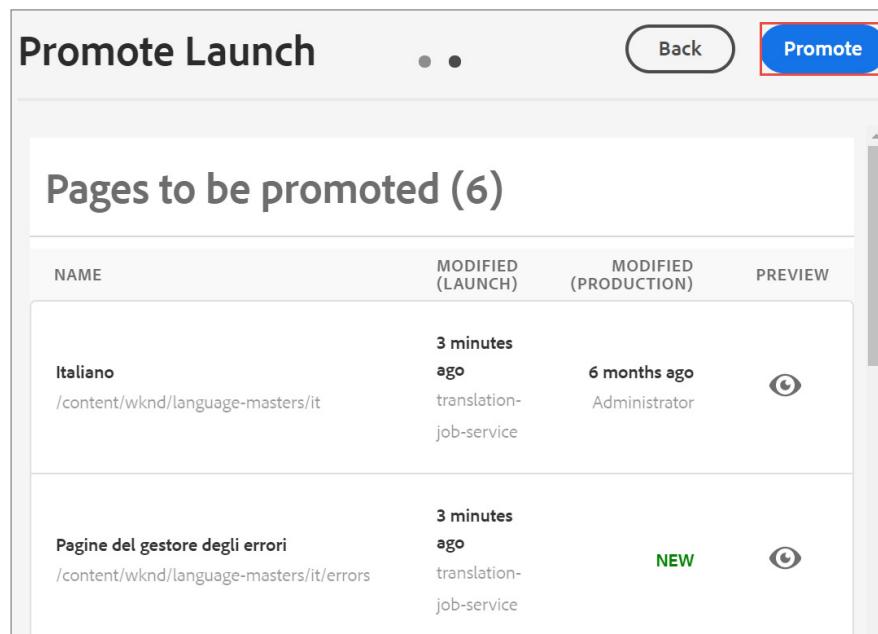
The **Promote Launch** wizard opens.

9. Ensure the **Promote full launch** button is selected and click **Next**, as shown:



The **Promote Launch** wizard appears.

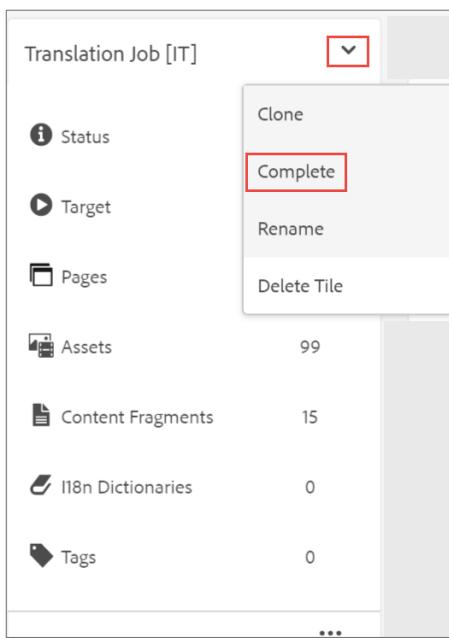
10. Click **Promote**, as shown:



The changes made to the **English** page are promoted.

11. From the **Projects** console, open the **English to Italian [IT]** project.

12. On the **Translation Job [IT]** tile, click the arrowhead and click **Complete** from the drop-down menu, as shown, to complete the translation job:

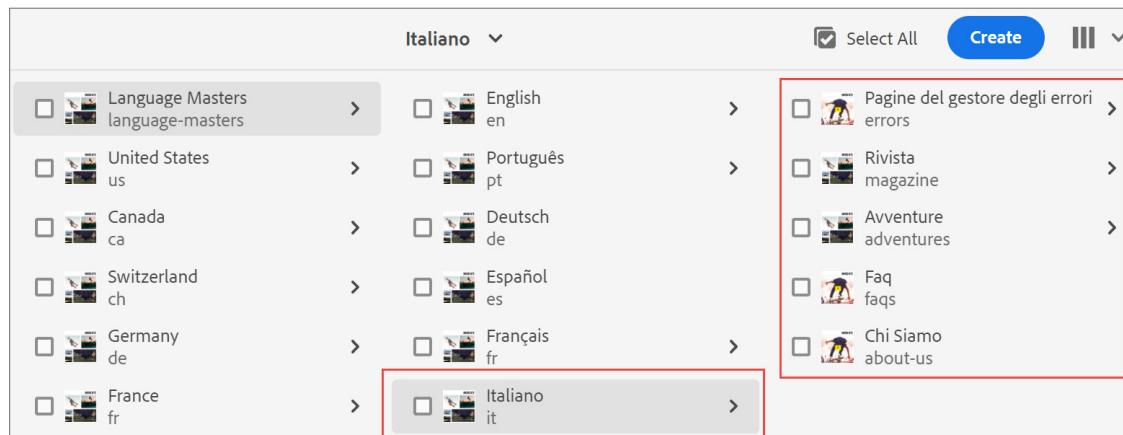


The **Updated Translation Job status to Complete** message is displayed at the bottom of the project.



Note: If a **Warning** dialog box opens, click **Do not delete**.

13. From the **Sites** console, navigate through **WKND Site > Language Masters > Italiano** page, and notice that the page structure is translated, as shown:



14. Select the **Italiano** page and click **Edit (e)** on the actions bar. The page opens on a new tab of the browser.

15. Notice that new content is added to the **English** language copy and translated along with the existing page content, as shown:



ITALIANO

Edit Preview



Escursioni a piedi

Da non perdere questi posti migliori per le escursioni!

16. Open the **Language Masters | AEM Sites** tab of the browser.

17. Clear the **Italiano** check box.

References

- [Configuring the Translation Integration Framework](#)
- [Preparing content for translation](#)
- [Managing translation projects](#)

Work with Different Translation Services

Introduction

In Adobe Experience Manager (AEM), you can use different translation service providers for content translation process. You need to configure the translation workflow integration with a translation service provider. You can integrate translation service providers with translation workflow through a software connector by using the AEM translation Application Programming Interface (API). This integration helps streamline the translation activities and manage billing and other translation-related tasks.

Objectives

After completing this module, you will be able to:

- Explain translation configuration
- Describe translation methods
- Apply the human translation method
- Describe translation integration configurations
- Create a custom translation integration configuration
- Add a custom translation configuration to a website
- Auto execute the translation

Translation Configurations

The AEM translation framework supports the integration with a variety of translation technology providers for both machine and human translation. You can integrate Localization Service Provider (LSP) connectors with AEM to automate the content translation workflow. For testing purposes or in the absence of a connector, you can manually export and import the relevant content for translation projects.

LSP

LSPs help scale your global business by providing a breadth of resources and technologies to improve efficiency and save translation costs. LSPs can be language translators or technology providers or both. It is recommended that you engage an LSP with expertise in translation and the related localization activities.

From an AEM perspective, the technology aspect determines whether an integration connector with the LSPs are available. The data exchange with an LSP can be:

- Online data exchange through a Translation Integration Connector
- Offline data exchange by file export from AEM and import of the translated content to AEM

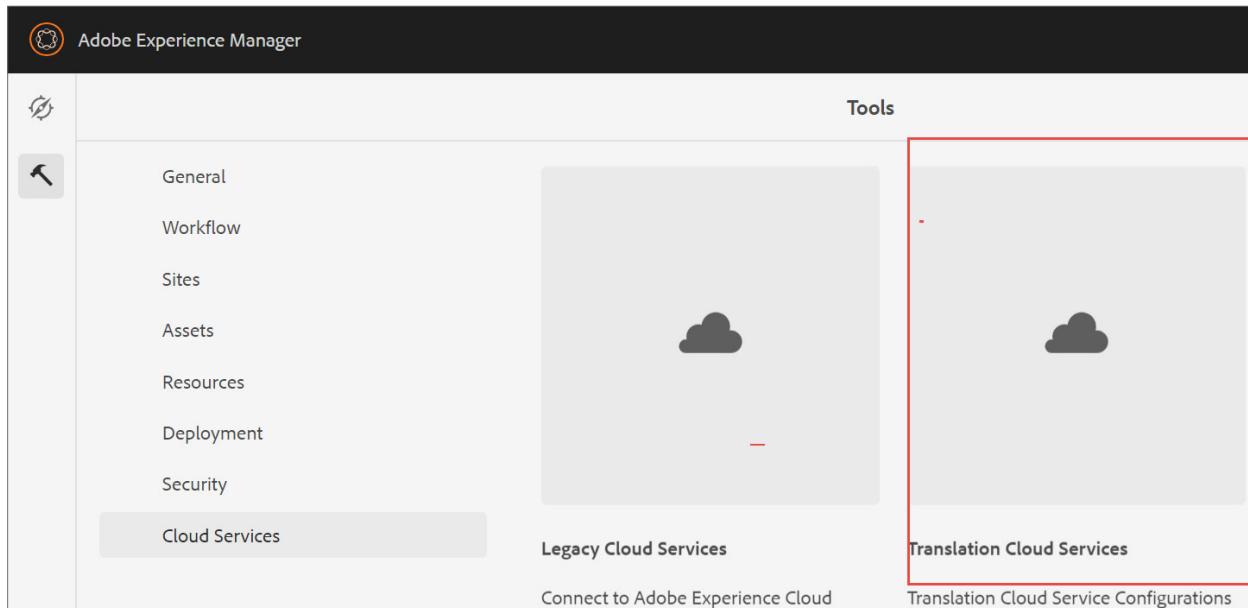
Configure the Translation Connector

You need to configure a translation connector after you install it in AEM. The installation of the connector is the responsibility of the AEM administrators. You can configure the connector from the **Translation Cloud Services** console.

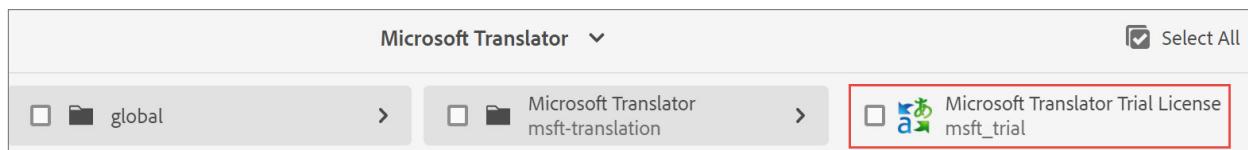
AEM has the following preinstalled translation configurations:

- Microsoft Translator: Has limited license and is used for demos and training.
- Export or import language content as files: Uses the compressed XML or JavaScript Object Notation (JSON) files (ZIP-format). It is the fallback method in absence of automated solution. To use this method in your project, you need to select the Human Translation method in the translation configuration. The use cases of this method are fallback and testing translation processes.

You can access the default Microsoft Translator from **Tools > Cloud Services > Translation Cloud Services**, as shown:



To access the default configuration for the Microsoft Translator cloud service for translating AEM page content or assets, as shown:



Apply Translation Integration Connectors to Websites and Content Types

You need to place all necessary translation configurations in the appropriate configuration context depending on whether connector should be used by all websites and served as a default translation method or whether it is used by a specific website. You can place the configurations in:

- Global (/conf/global) folder
- Project-specific (/conf/<project-name>) folder

The **Translation Configuration Settings** helps define the translation method for the following content types, as shown:

- Pages
- Assets
- User-generated content
- Component strings
- Tags

Edit Configuration

SITES ASSETS COMMUNITIES

Translation Method
Machine Translation

Translation Providers
microsoft

Content Category
General

Translate Page Assets
Using Sites Translation Workflow

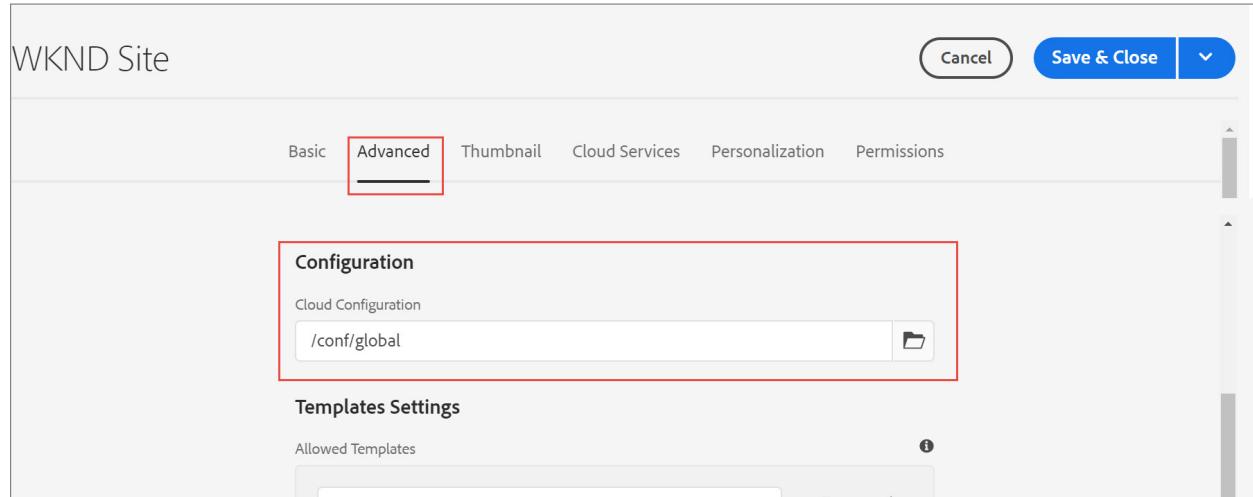
Translate Component Strings
 Translate Tags
 Auto Execute Translation

Cancel Save & Close

Add Translation Configurations to Content

You need to map the translation configuration to the highest level of the content hierarchy. This enables the subpages on the lower level to inherit the configuration.

You can set the configuration for the site or a page from the **Properties > Advanced** tab. In the **Configuration** section, the **Cloud Configuration** box enables you to add the configuration, as shown:



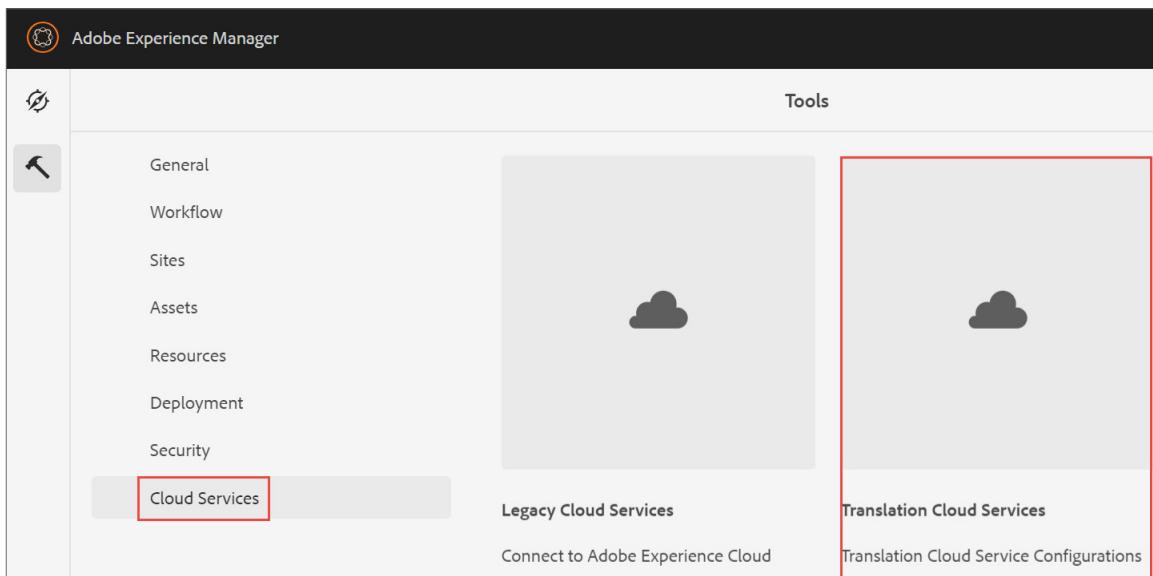
Exercise 1: Examine the default translation configurations

Scenario: As a power user, you need to configure the translation methods for a website.

You need to examine the installed translation connectors, the translation integration configurations that are available, and create a custom configuration if required.

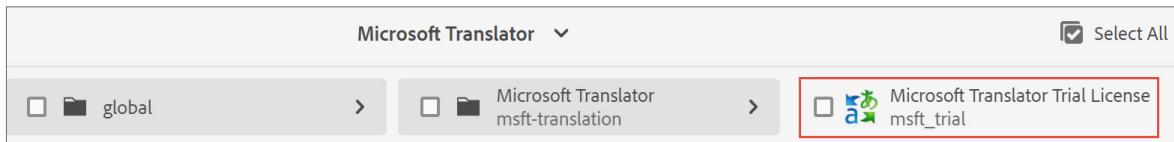
To view the default Microsoft Translator:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click the **Tools** icon. The **Tools** panel opens.
3. Click **Cloud Services** and click **Translation Cloud Services**, as shown:



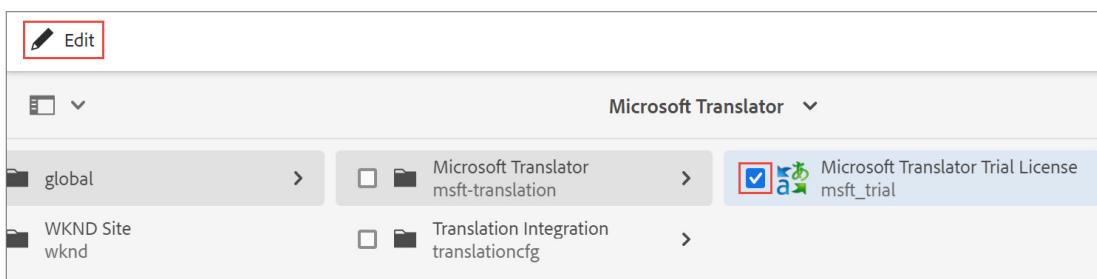
The **Translation Cloud Services** console opens.

4. Navigate through **conf > global > Microsoft Translator**. Notice that the Microsoft Translator predefined configuration is available in the **conf** directory, as shown.

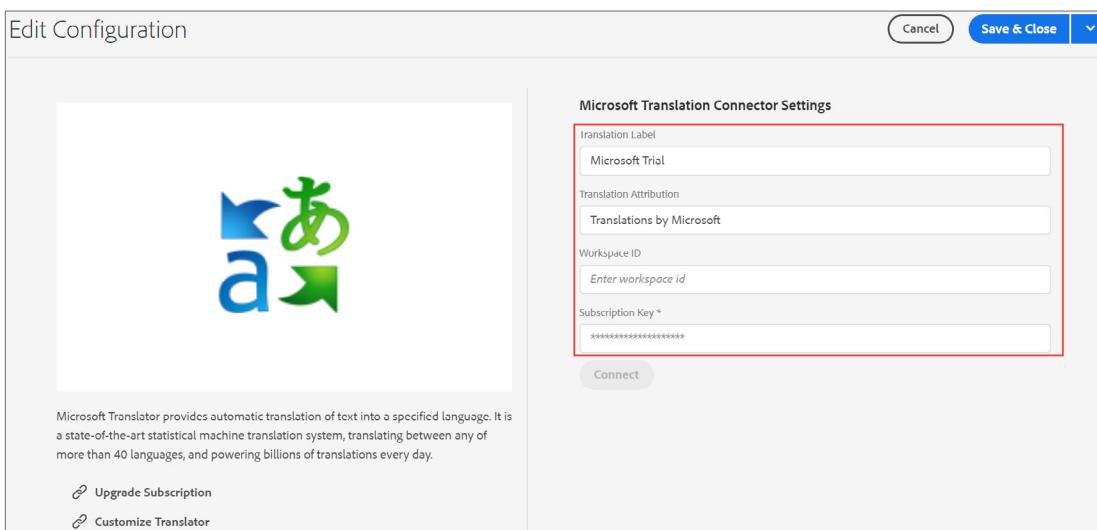


Note: The default Microsoft Translator Trial License of AEM is copied to the **global** folder.

5. Select the **Microsoft Translator Trail License** and click **Edit** on the actions bar, as shown:
The **Edit Configuration** dialog box opens.



6. Observe the installation settings specific to the Microsoft Translator connector, as shown:

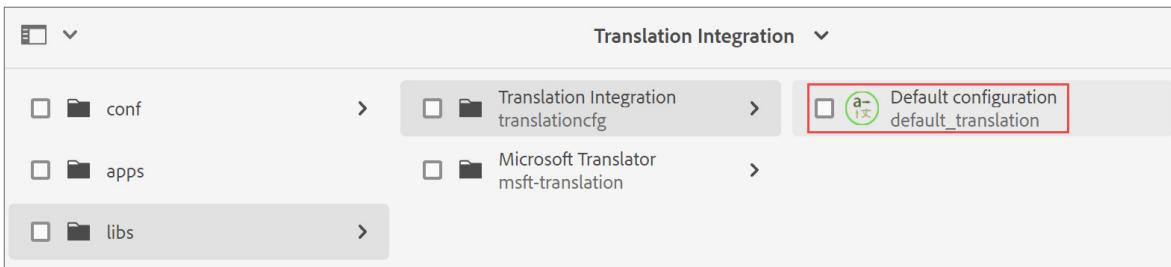


7. Click **Cancel** to close the dialog box.

You can also install and configure the connectors of other language translation providers in AEM.

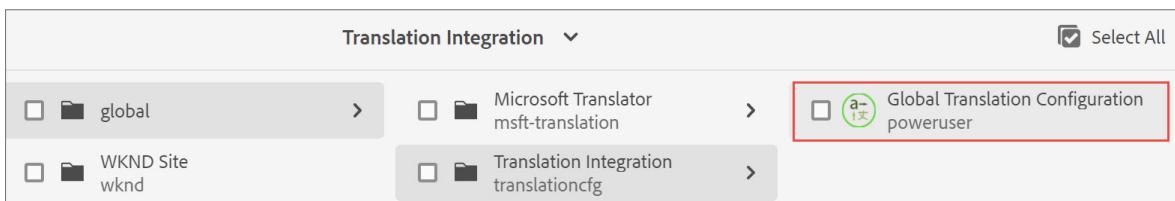
To examine the default and custom translation integration configurations:

8. Navigate to **libs > Translation Integration**. Notice that a predefined configuration named **Default configuration** exists, as shown:



This configuration is used for translation if no custom configuration is created.

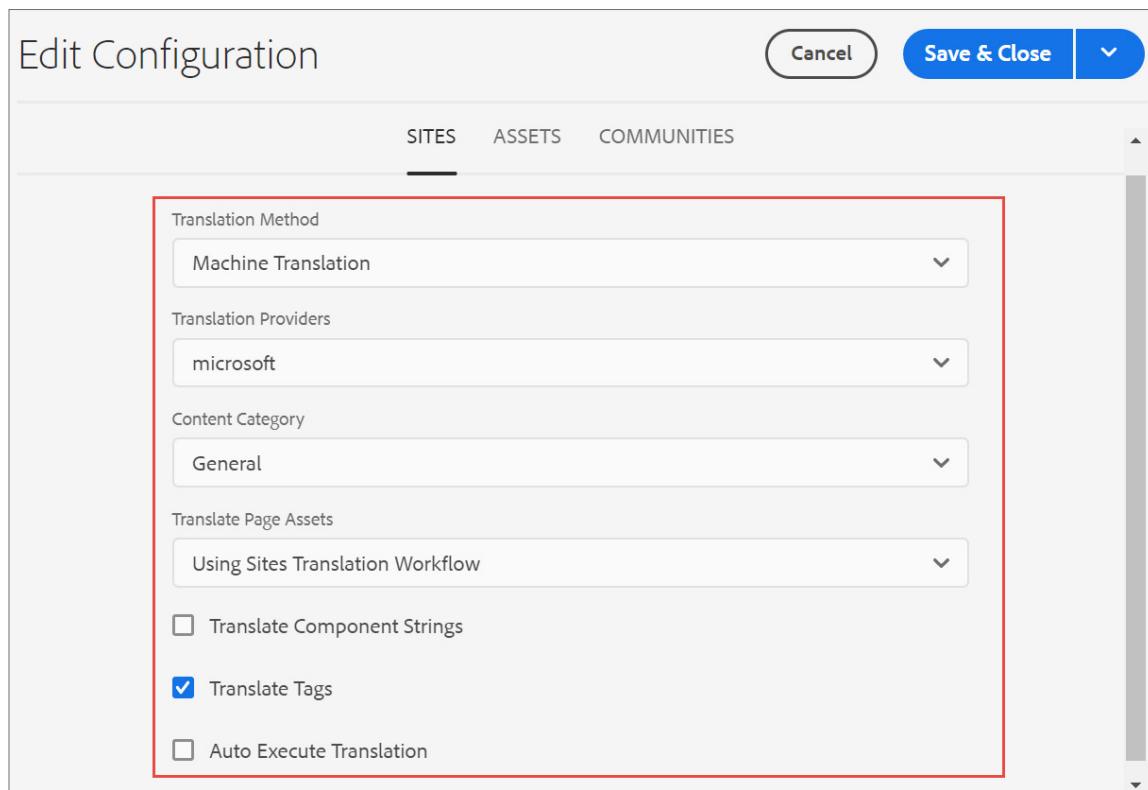
9. Navigate to **conf > global > Translation Integration**. Notice that a custom configuration named **Global Translation Configuration for training** exists, as shown:



The customers can create custom configuration if their requirements are different from the default configuration.

10. Select **Global Translation Configuration for training** and click **Edit** on the actions bar. The **Edit Configuration** page opens.

11. Notice that you can choose translation behavior for each resource type, as shown:



12. Click **Cancel** to close the dialog box as you will not modify the default configuration.

Content Translation Through LSPs

To translate new content, you need to send it to the LSP. You can send the content in two ways:

- Use the translation connector, which automates the data exchange with the LSP.
- Export the content as a file from AEM and this is the preferable method.

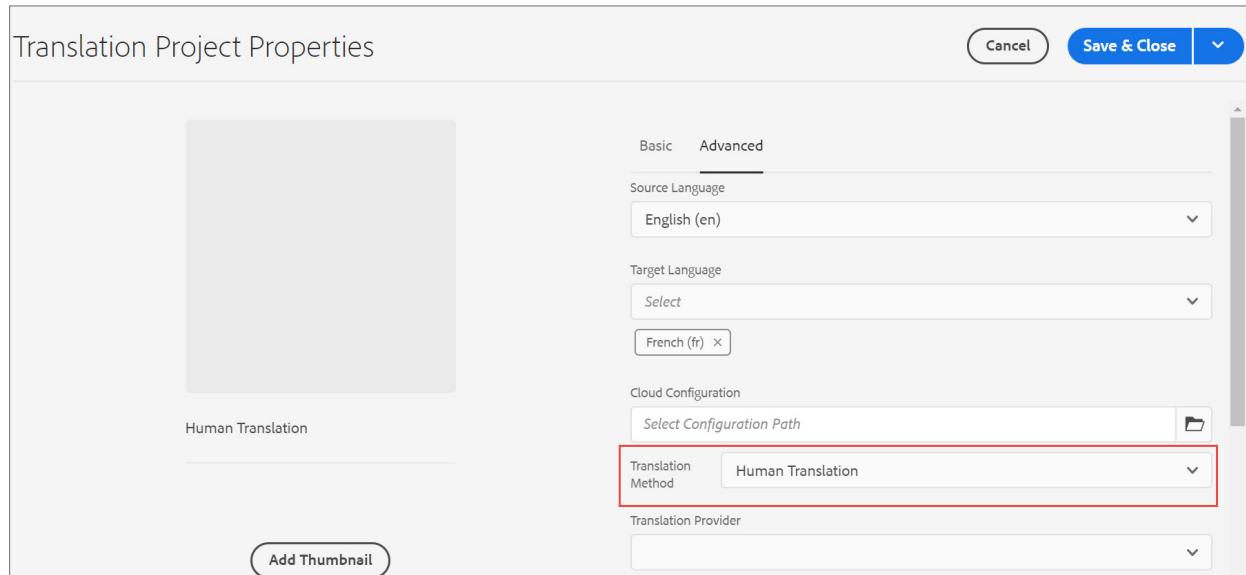


Note: You will learn how to plan the multinational expansion of a website and the trade-offs between the different translation exchange methods in Module 8: Plan a Global Web Presence.

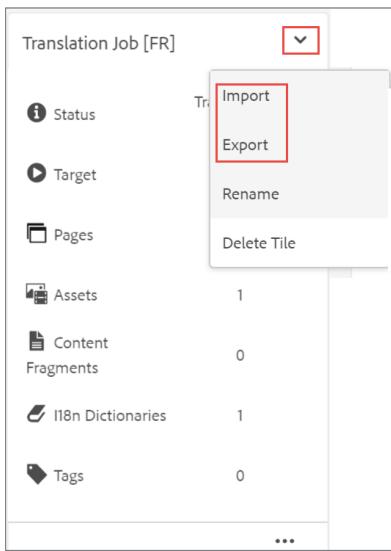
Machine translation is used for the online data exchange. This method ensures one of the translation integration connectors provided by LSPs is used for translation. LSPs can still use humans to translate, but the data exchange with LSP is automated.

Configure Human Translation

You can configure a translation project to use the Human Translation method from the **Translation Project Properties** wizard that is available on the **Summary** tile on the project dashboard, as shown:



If you configure the translation project with Human Translation method, the **Translation Job** will have different options, such as **Export and Import**, as shown:



The content to be translated is written into an XML or JSON based file format and is exported as Zip archive file from AEM. You can share the Zip archive files with the LSP and import the translated content back into AEM as a Zip archive.

Exercise 2: Apply the human translation method

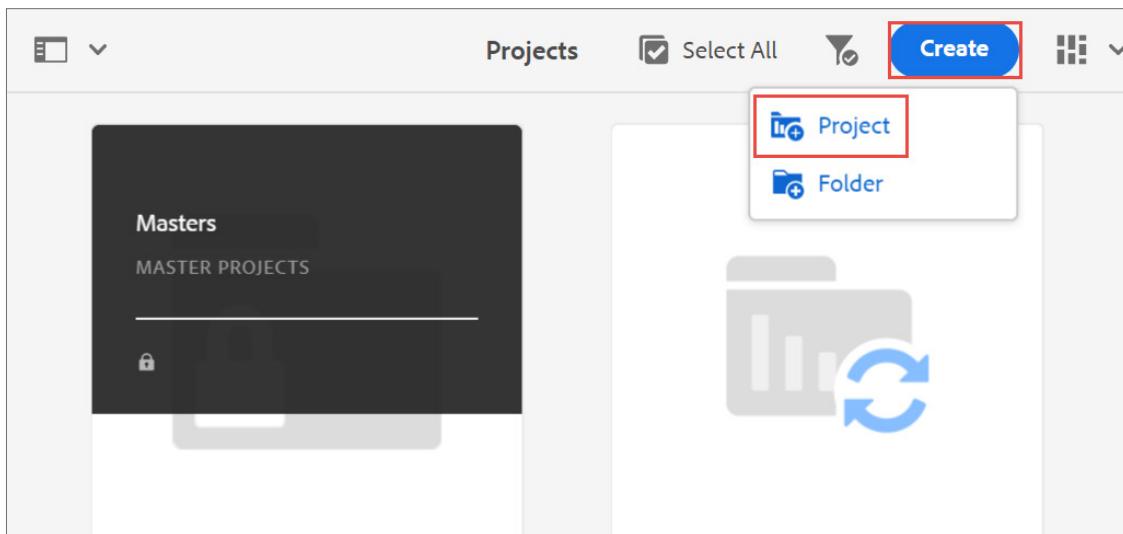
Scenario: An organization uses machine translation and human translation methods to achieve the required web content quality. It wants the About Us page to be translated into French by an LSP that has no AEM translation integration connector.

You will perform the following tasks:

1. Create a translation project and configure it to use the human translation method
2. Translate the content

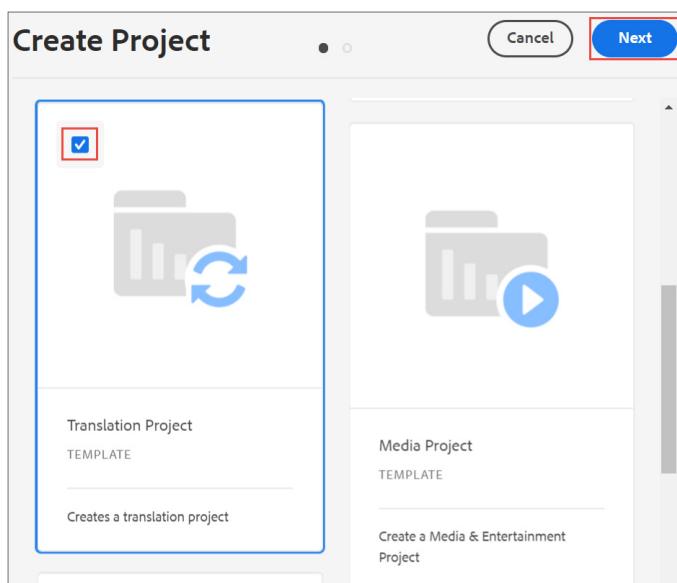
Task 1: Create a translation project and configure it to use the human translation method

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Projects**. The **Projects** console opens.
3. Click **Create** on the actions bar and select **Project** from the drop-down menu, as shown:



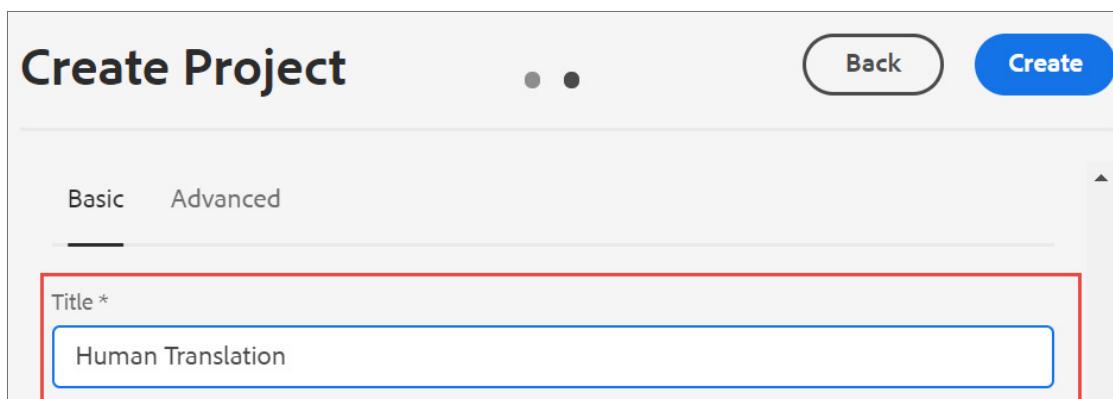
The **Create Project** wizard opens.

4. Select the **Translation Project** template and click **Next**, as shown:



The **Properties** section of the **Create Project** wizard opens.

5. In the **Properties** section, type the following information:
a. On the **Basic** tab, type **Human Translation** in the **Title** box, as shown:



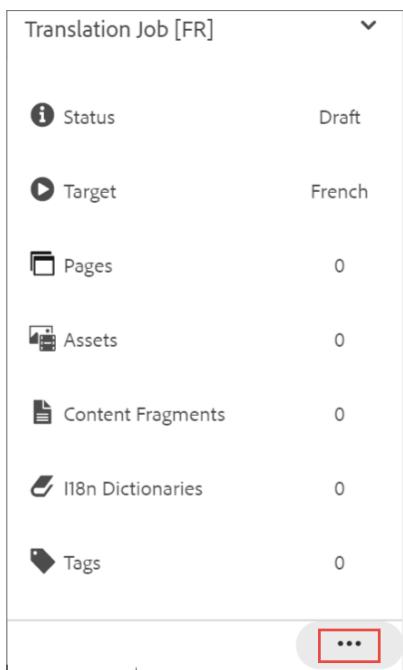
- b. Click the **Advanced** tab and perform the following actions, as shown:
- Ensure **English (en)** is selected from the **Source Language** drop-down menu.
 - Select **French (fr)** from the **Target Language** drop-down menu.
 - Select **Human Translation** from the **Translation Method** drop-down menu.
 - Clear the **Automatically Promote Translation Launches** and **Automatically Approve Translations** check boxes.
 - Click **Create**.

The screenshot shows the 'Create Project' dialog box with the 'Advanced' tab selected. The 'Name' field is set to 'human-translation'. The 'Source Language' dropdown shows 'English (en)'. The 'Target Language' dropdown shows 'Select' with 'French (fr)' listed. The 'Translation Method' dropdown shows 'Human Translation'. At the bottom, there are three checkboxes: 'Automatically Promote Translation Launches', 'Delete Launch After Promotion', and 'Automatically Approve Translations', all of which are unchecked. The 'Create' button is highlighted with a red border.

The **Success** dialog box opens.

6. Click **Open**. The **Human Translation** project opens.

7. Click the ellipsis icon at the bottom of the **Translation Job [FR]** tile, as shown:



The list of items in the job is empty, as shown:

Translation Job [FR]				
TITLE	PATH	STATUS	STATE	RESOURCE TYPE
There is no item.				

8. Click **Add** on the actions bar and select **Assets/Pages** from the drop-down menu, as shown:

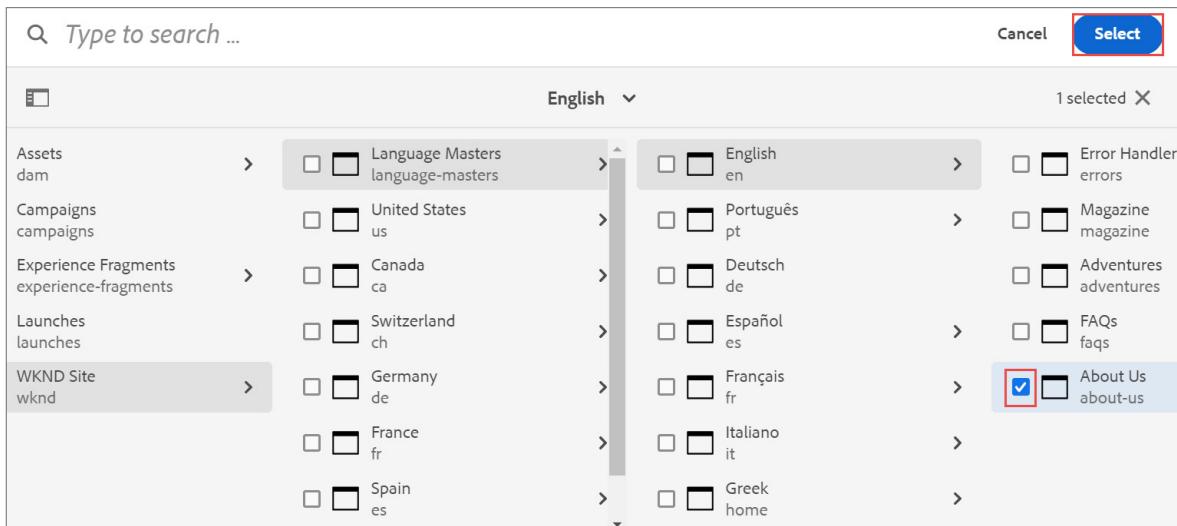
The screenshot shows the same "Translation Job [FR]" list view as before, but with the "Add" button on the actions bar highlighted with a red box. A dropdown menu has opened, showing three options:

- Assets/Pages** (highlighted with a red box)
- Asset/Page (without children)
- Tags

The main list area still displays the message "There is no item."

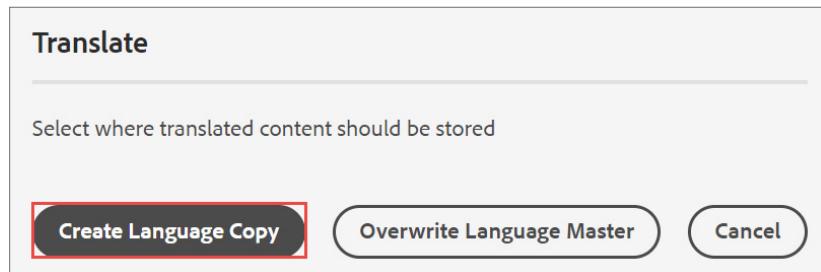
The **Select Path** dialog box opens.

9. Navigate to **WKND Site > Language Masters > English**, select the **About Us** page and click **Select**, as shown:



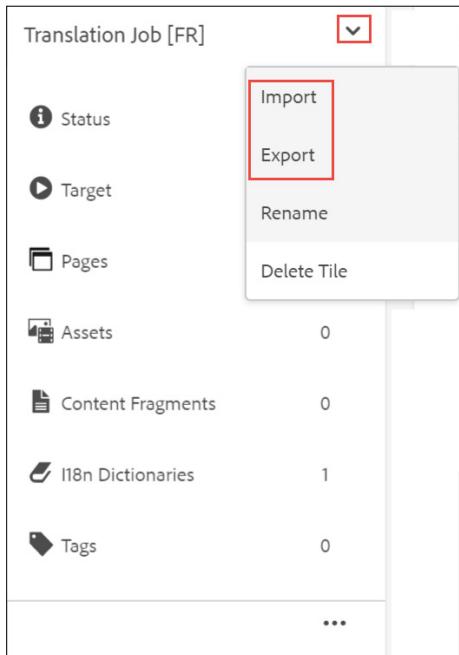
The **Translate** dialog box opens.

10. Click **Create Language Copy** in the dialog box, as shown:



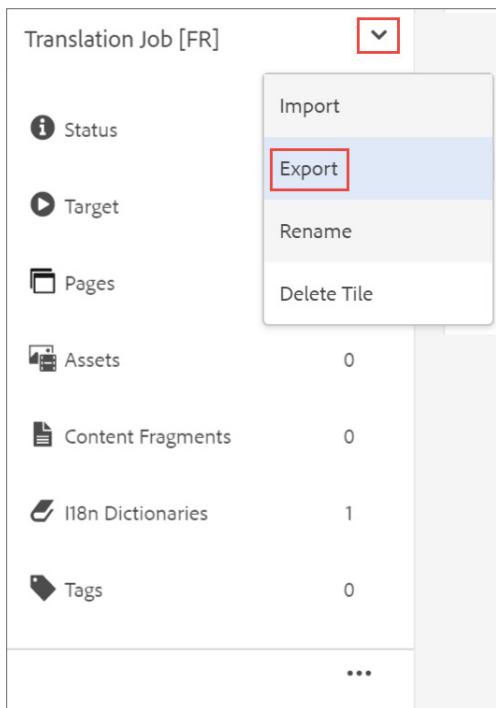
The **Translation Job [FR]** details page opens. The **About Us** page and its relevant resources are added to the job.

11. Click **Translation Job [FR]** from the breadcrumb and select **Human Translation** from the drop-down menu. The **Human Translation** project opens.
12. Click the arrowhead on the **Translation Job [FR]** tile and notice new options such as **Import** and **Export**, are available on the drop-down menu for human translation, as shown:



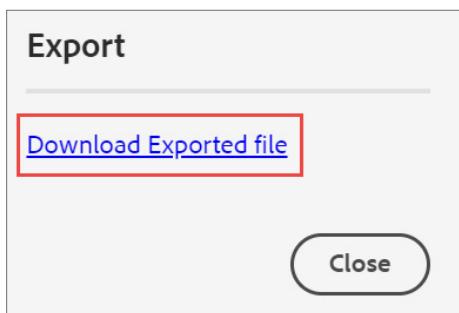
Task 2: Translate the content

1. Ensure you are in the **Human Translation** project.
2. Click the arrowhead on the **Translation Job [FR]** tile and select **Export** from the drop-down menu, as shown:



Please wait **Export in progress** message appears, and then the **Export** dialog box opens.

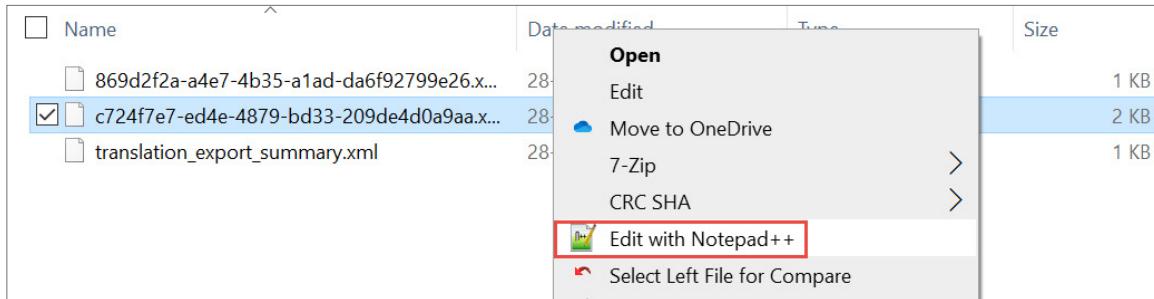
3. Click **Download Exported file**, as shown:



The **human_translationfr.zip** folder is downloaded.

4. Click **Close** in the **Export** dialog box.
5. Unzip the **human_translationfr.zip** folder.

6. Right-click the **translation_export_summary.xml** file and edit it with **Notepad++**, as shown (or use any text editor of your choice):



The **translation_export_summary** file opens in the text editor. Notice that the file contains the property **fileUniqueId=<"your-unique-ID">**. For example, in this case the ID "c724f7e7-ed4e-4879-bd33-209de4d0a9aa" contains the properties to be translated, as shown:

```
<?xml version="1.0" encoding="UTF-8"?><translationObjectFile fileType="translation_export_summary">
  <translationObjectProperties>
    <property fileUniqueId="c724f7e7-ed4e-4879-bd33-209de4d0a9aa" nodePath="/content/wknd/language-masters/fr/about-us"/>
    <property fileUniqueId="869d2f2a-a4e7-4b35-a1ad-da6f92799e26" nodePath="/" />
  </translationObjectProperties>
</translationObjectFile>
```



Note: The fileUniqueId is different for each AEM user. Ensure to use the XML file that contains the untranslated content.

From the **human_translationfr** folder, open the <your-unique-ID> in the text editor or Notepad++. Notice that there are several **<property>** attributes in the file. These attributes contain the string that needs to be translated to different language, as shown:

```
<?xml version="1.0" encoding="UTF-8"?><translationObjectFile fileType="PAGE" sourcePath=
"/content/wknd/language-masters/fr/about-us">
  <translationObjectProperties>
    <property isMultiValue="false" nodePath="/content/wknd/language-masters/fr/about-us/jcr:content" propertyName="jcr:title">
      About Us</property>
      <property isMultiValue="false" nodePath="/content/wknd/language-masters/fr/about-us/jcr:content" propertyName="jcr:description">WKND is a collective of outdoors, music, crafts, adventure sports, and travel enthusiasts that want to share our experiences, connections, and expertise with the world.</property>
      <property isMultiValue="false" nodePath=
"/content/wknd/language-masters/fr/about-us/jcr:content/root/responsivegrid/responsivegrid/title_393953656" propertyName="jcr:title">Our Contributors</property>
      <property isMultiValue="false" nodePath=
"/content/wknd/language-masters/fr/about-us/jcr:content/root/responsivegrid/responsivegrid/text_310704238" propertyName="text">&lt;p&gt;&lt;i&gt;Meet the outstanding individuals responsible for bringing you the most compelling stories across the globe.&lt;/i&gt;&lt;/p&gt;
    </property>
    <property isMultiValue="false" nodePath=
"/content/wknd/language-masters/fr/about-us/jcr:content/root/responsivegrid/responsivegrid/title_393953656_copy" propertyName="jcr:title">WKND Guides</property>
    <property isMultiValue="false" nodePath=
"/content/wknd/language-masters/fr/about-us/jcr:content/root/responsivegrid/responsivegrid/text_359993709" propertyName="text">&lt;p&gt;&lt;i&gt;Meet our extraordinary travel guides. When you travel with a certified WKND guide you gain access to attractions and perspectives not found on the pages of a guide book.&lt;/i&gt;&lt;/p&gt;
  </property>
  </translationObjectProperties>
</translationObjectFile>
```

In a real-time use case, the human translator manually replaces each property value with the translated content.

In the <property isMultiValue="false" nodePath="/content/wknd/language-masters/fr/about-us/jcr:content" propertyName="jcr:title">About Us</property>

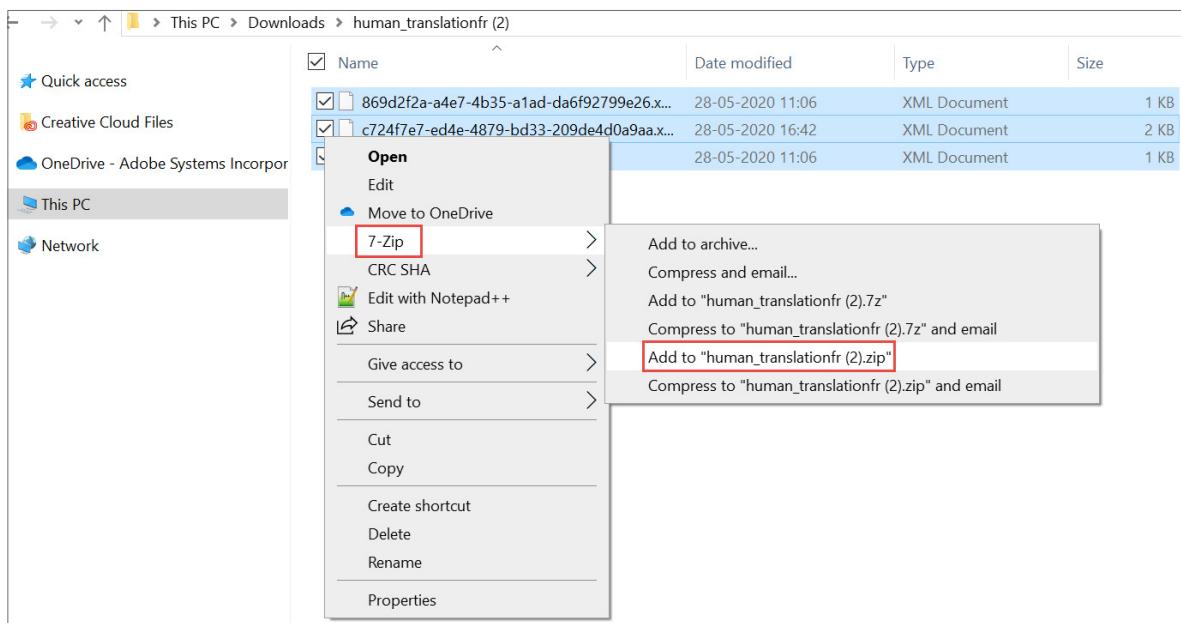
the human translator will replace the string **About Us** with **À propos de nous**, and the property attribute will look similar to the following:

```
<property isMultiValue="false" nodePath="/content/wknd/language-masters/fr/about-us/jcr:content" propertyName="jcr:title">À propos de nous</property>
```

For this exercise, all property attributes of the <your-unique-ID> file are already translated to French. The translated <your-unique-ID> file is available in the **Exercise_Files** folder.

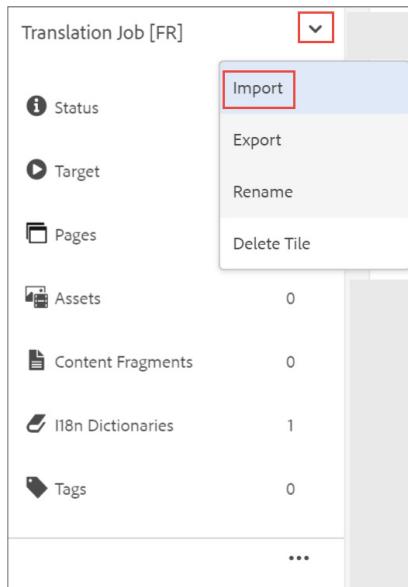
7. On your file system, navigate to the **Exercise_Files\Work with Different Translation Services** folder, open the **your-unique-ID.txt** file in a text editor.
8. Copy the translated content from **your-unique-ID.txt** file.
9. Ensure the <**your-unique-ID**>.xml file is open in the text editor (the one you opened in step 6).
10. Paste the copied translated content to the <**your-unique-ID**>.xml file and press Ctrl + S to save it.
11. Close the <**your-unique-ID**>.xml and **translation_export_summary.xml** files from the text editor.
12. Navigate to the folder where the **human_translationfr.zip** was downloaded on your file system, and delete the zip file.

13. Open the extracted **human_translationfr** folder (that you unzipped in step 5), select all files, right-click and compress the **human_translationfr** folder into a zip format, as shown:



14. On your AEM author service, ensure the **Human Translation** project folder is open.

15. Click the arrowhead on the **Translation Job [FR]** tile and select **Import** from the drop-down menu, as shown:



The **Open** dialog box opens.

16. Navigate to your file system, open the **human_translationfr** folder and select the **human_translationfr.zip** folder that you created in step 13 and click **Open**. The **File uploaded successfully. Import in progress** message appears.

17. Notice that the **Status** of Translation Job [FR] is changed to **Translation in progress**, as shown:

The screenshot shows a card titled "Translation Job [FR]". It contains the following data:

i Status	Translation in progress
▶ Target	French
📄 Pages	1
📁 Assets	0
📄 Content Fragments	0
✍ I18n Dictionaries	1
🏷 Tags	0
...	



Note: If you do not see the Status as Approved, refresh the browser and check again.

18. Click the ellipsis icon at the bottom of the **Translation Job [FR]** tile. The details page opens.

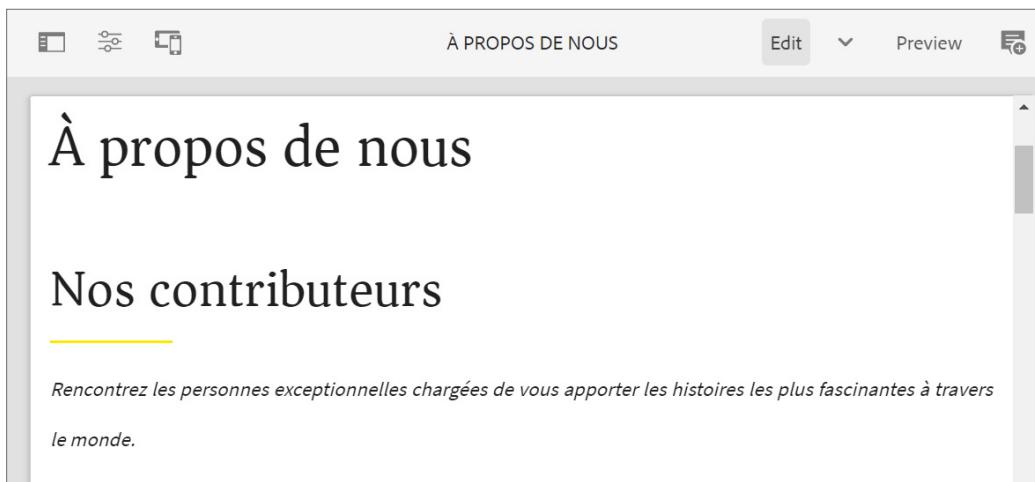
19. Select **About Us** and click **Preview in Sites** on the actions bar, as shown:

The screenshot shows a table of resources under "Translation Job [FR]". The first row, "About Us", has a checked checkbox and is highlighted with a red border. The actions bar above the table includes buttons for "Reveal in Sites", "Preview in Sites" (which is highlighted with a red border), "Accept Translation", and "Reject Translation".

-	TITLE	PATH	STATUS	STATE	RESOURCE TYPE
<input checked="" type="checkbox"/>	About Us	/content/wknd/language-masters/fr/about-us	New	Ready for review	Page
<input type="checkbox"/>	Tags Metadata		New	Ready for review	Tags Metadata
<input type="checkbox"/>	Component Strings		New	Error update	I18n Dictionary

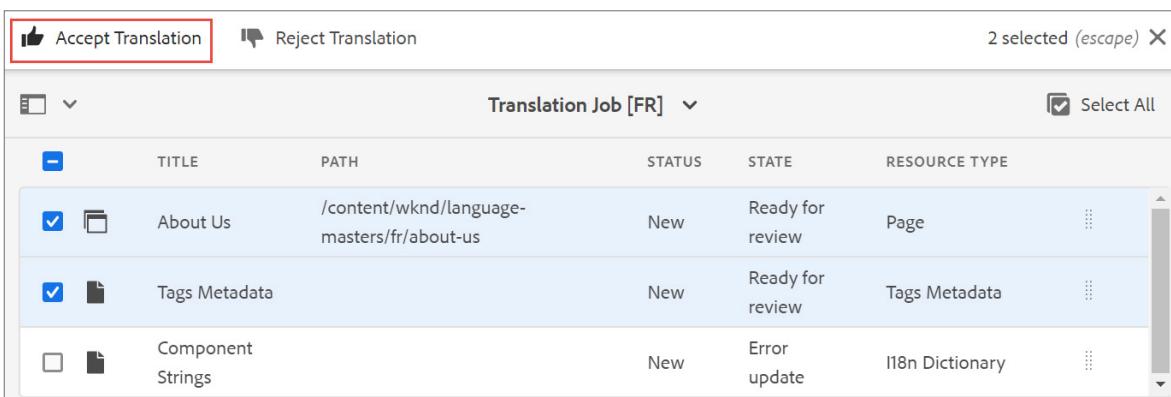
The **ABOUT US** page opens on a new tab of the browser.

20. Notice the content of the page is translated to French, as shown:



The screenshot shows the 'About Us' page in French. The title 'À propos de nous' is at the top. Below it is a section titled 'Nos contributeurs'. A subtitle reads: 'Rencontrez les personnes exceptionnelles chargées de vous apporter les histoires les plus fascinantes à travers le monde.'

21. On your browser, click **AEM Projects** tab to open the **Human Translation** project.
22. Select the **About Us** and **Tags Metadata** check boxes and click **Accept Translation** on the actions bar, as shown:

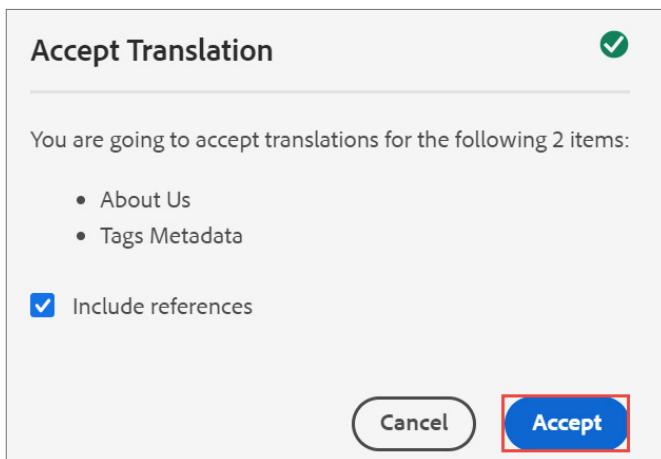


The screenshot shows the 'Accept Translation' dialog box. It has two buttons: 'Accept Translation' (highlighted with a red border) and 'Reject Translation'. At the top right, it says '2 selected (escape) X'. Below is a table titled 'Translation Job [FR]'. The table lists three items: 'About Us' (selected), 'Tags Metadata' (selected), and 'Component Strings' (not selected). The columns are: TITLE, PATH, STATUS, STATE, and RESOURCE TYPE.

	TITLE	PATH	STATUS	STATE	RESOURCE TYPE
<input checked="" type="checkbox"/>	About Us	/content/wknd/language-masters/fr/about-us	New	Ready for review	Page
<input checked="" type="checkbox"/>	Tags Metadata		New	Ready for review	Tags Metadata
<input type="checkbox"/>	Component Strings		New	Error update	I18n Dictionary

The **Accept Translation** dialog box opens.

23. Click **Accept**, as shown:



The **Translation accepted** message appears.

24. Notice that the **Status of Translation Job [FR]** is changed to **Approved**, as shown:

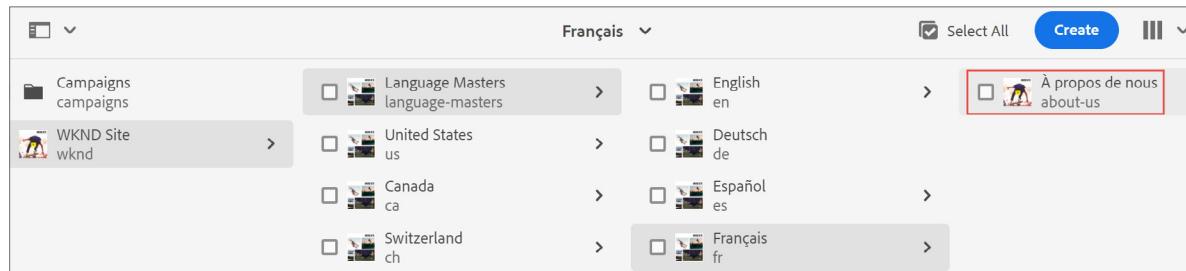
	TITLE	PATH	STATUS	STATE	RESOURCE TYPE	
<input type="checkbox"/>	About Us	/content/wknd/language-masters/fr/about-us	New	Approved	Page	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Tags Metadata		New	Approved	Tags Metadata	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Component Strings		New	Error update	I18n Dictionary	<input checked="" type="checkbox"/>

25. Click **Translation Job [FR]** from the breadcrumb and select **Human Translation** from the drop-down menu. The **Human Translation** project opens.

26. Click **Adobe Experience Manager** from the header bar.

27. Click **Sites** to open the **Sites** console.

28. Navigate to the **WKND Site > Language Masters > Francais** page and notice that the **About Us** page is translated to French, as shown. This confirms that the Human Translation project has completed the translation successfully.



Translation Integration Configurations

When different sections of a website have different translation requirements, you need to create multiple translation framework configurations. For example, if a multilingual website includes English, Spanish, and Japanese language copies, and the site owner uses two different translation service providers for Spanish and Japanese translations, you need to create two configurations. Each configuration will use a different translation service provider. Each translation integration configuration controls the content translation process.

Translation Configuration Options

The following table describes the options that can be used to control the translation process:

Property	Description
Online/Offline	The content data can be sent to and received from the LSP through the following options: <ul style="list-style-type: none"> Machine Translation: The content is sent to and received from the LSP through the network. Human Translation: The content is exported into files by using the browser and shared with the LSP. The translated content is imported as files into AEM. Do Not Translate: The content is created or updated in the destination source language without translation.
Translation Provider	Helps choose the translation provider to perform the translation. A provider appears in the list after you install the corresponding connector.
Content Category	Describes the topical domain of the content to translate. The property can affect the choice of terminology and phrasing in content translation. This property is specific to the Microsoft Translation service.
Translate Tags	Translates tags associated with a page.
Translate Page Assets	Helps choose how to translate metadata of assets that are referenced in pages: <ul style="list-style-type: none"> Do not translate: Does not translate page assets Using Sites translation workflow: Handles assets according to the configuration properties on the Sites tab. Using Assets translation workflow: Handles assets according to the configuration properties on the Assets tab
Auto Execute Translation	Executes translation jobs automatically after a translation project is created. If you select this option, you will not be able to review the scope and configuration of the translation job.

The lookup order for translation integration configurations is:

1. /conf/<project-name>/translationcfg
2. /conf/global/translationcfg
3. /apps/translationcfg
4. /libs/translationcfg

Exercise 3: Create a custom translation configuration

Scenario: As a power user, you want to specify the translation method to be used for the LSPs of sites and assets, and define the resource types that the LSP should translate.

You need to create a custom translation integration configuration for your website.

To create a custom translation configuration:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Navigate to **Tools > Cloud Services > Translation Cloud Services**. The **Translation Cloud Services** page opens.
3. Navigate to the **conf > WKND Site** folder and click **Create** on the actions bar, as shown:



The **Create Translation Configuration** dialog box opens.

4. Select **Translation Integration** from the **Select configuration type** drop-down menu, type **Training** in the **Title** box and click **Create**, as shown:

Create Translation Configuration

Translation Integration

Title *

Training

Name

name

Cancel Create

The **Edit Configuration** page opens.

5. On the **SITES** tab, select the **Translate Tags** and **Auto Execute Translation** check boxes and click **Save & Close**, as shown:

Edit Configuration

Cancel Save & Close

Translation Method

Machine Translation

Translation Providers

microsoft

Content Category

General

Translate Page Assets

Using Sites Translation Workflow

Translate Component Strings

Translate Tags

Auto Execute Translation

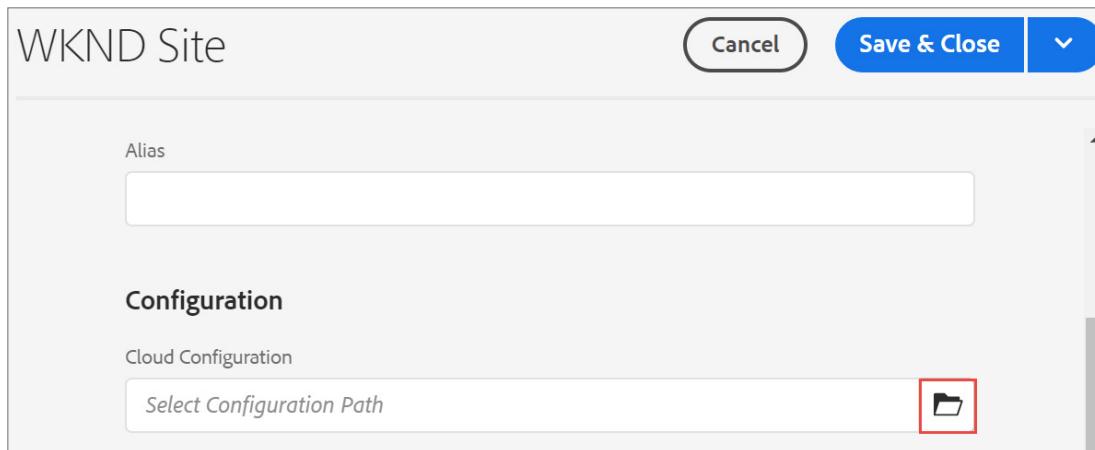
The **form has been submitted successfully** message appears at the bottom of the page. This confirms that a new translation integration configuration is created.

Exercise 4: Add a custom translation configuration to a website

Scenario: As a website manager, you want to apply a translation configuration to a multilingual website.

You need to add a translation configuration to the highest level of website hierarchy from the properties wizard.

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Select the **WKND Site** and click **Properties (p)** on the actions bar. The **WKND Site** properties wizard opens.
4. Click the **Advanced** tab to open it.
5. Scroll down and look for the **Configuration** section > **Cloud Configuration** box and click the **Open Selection Dialog** icon, as shown:



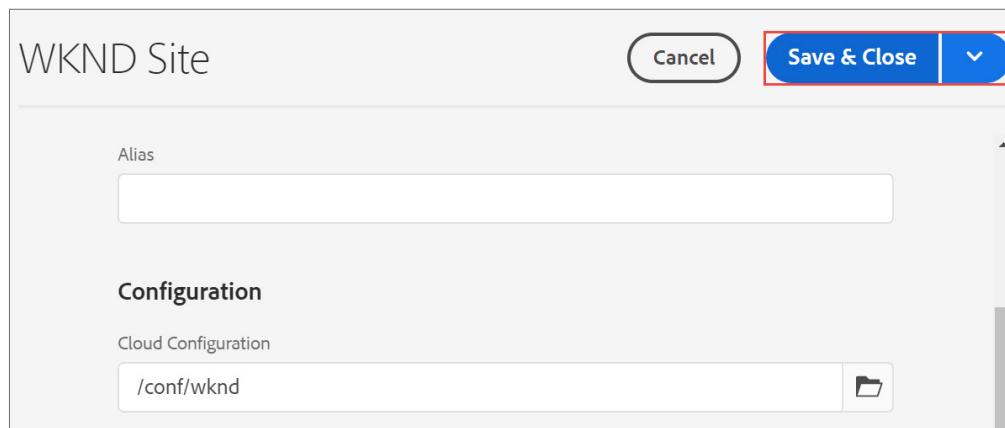
The **Select Path** dialog box opens.

6. Select the **WKND Site** check box and click **Select**, as shown:



The path is added to the **Cloud Configuration** box.

7. Click **Save & Close**, as shown:



The **form has been submitted successfully** message appears at the bottom of the **Sites** console. This confirms that the **Training** translation configuration that you created in the previous exercise is added to the WKND Site.

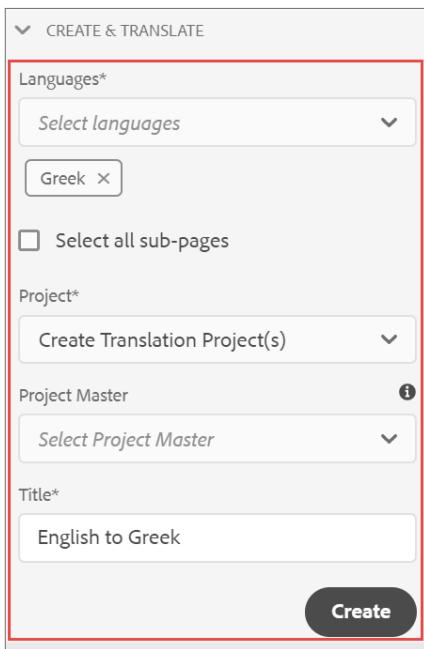
Exercise 5: Auto execute the translation

Scenario: As a power user, you want to configure the translation workflow to be as efficient as possible.

You need to enable the **Auto Execute Translation** function in the translation workflow for a website to ensure that the content is sent for translation as soon as it is added to a translation project.

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate to the **WKND Site > Language Masters > English** and select the **Magazine** page.
4. Click the rail selector icon on the actions bar. The drop-down menu appears.
5. Select **References** from the drop-down menu. The **References** panel opens.
6. Click **Language Copies (6)** in the panel. The language copies appear in the panel.
7. Click **CREATE & TRANSLATE** at the bottom of the panel. The **CREATE & TRANSLATE** panel expands.

8. Perform the following tasks, as shown:
 - a. Select **Greek** from the **Languages** drop-down menu.
 - b. Clear the **Select all sub-pages** check box.
 - c. Select **Create Translation Project(s)** from the **Project** drop-down menu.
 - d. Type **English to Greek** in the **Title** box.
 - e. Click **Create**.



The **Translation project created (de)** message appears at the bottom of the page.

9. Click **1 selected x** at the top-right corner of the actions bar to clear the selected page.
10. Click **Adobe Experience Manager** on the header bar.
11. Click **Projects** on the **Navigation** panel. The **Projects** console opens.
12. Observe that an **English to Greek** project folder is created as a result of step 6.
13. Click the **English to Greek** folder to open it.
14. Click the **English to Greek [DE] PROJECT** card to view the dashboard.

15. In the **Translation Job [EL]** tile, notice that the **Status** is **Approved**, as shown, because of the **Training** configuration that you added to the WKND Site in the previous exercise.

Translation Job [EL]	
i Status	Approved
▶ Target	Greek
📄 Pages	1
📁 Assets	0
📄 Content Fragments	0
✍ I18n Dictionaries	0
🏷 Tags	0
...	

16. Click the ellipsis icon on the **Translation Job [EL]** tile to open the details page.
 17. Select the **Magazine** page check box and click **Preview in Sites** on the actions bar to open the page.
 18. Scroll down the page and notice that the Magazine page content is translated into German language, as shown:

ΑΛΑΣΚΑ ΠΕΡΙΠΕΤΕΙΑ

ΑΝΑΚΑΛΥΨΤΕ ΤΗΝ 49η ΠΟΛΙΤΕΙΑ

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FLY ΨΑΡΕΜΑ ΤΟΥ AMAZONΙΟΥ

ΖΗΣΤΕ ΤΟΝ AMAZONΙΟ ΟΠΩΣ ΠΟΤΕ ΠΡΙΝ

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19. Click the **Page Information** icon on the page toolbar and click **View in Admin** from the drop-down menu to navigate to the **Sites** console.
 20. Click **Adobe Experience Manager** on the header bar.

21. Click **Sites** on the **Navigation** panel. The **Sites** console opens.
22. Navigate to the **WKND Site > Language Masters > Greek** page and notice that the **Greek Magazin** version page exists, as shown. This confirms that the **Auto Execute Translation** functionality of the **Training** configuration has translated the page content automatically without your intervention.

The screenshot shows the Adobe Experience Manager (AEM) Sites console. The top navigation bar has 'Greek' selected. On the right, there are 'Select All' and 'Create' buttons. The main area displays a tree structure of sites. A new site, 'Περιοδικό magazine', is being created and is highlighted with a red box. Other sites listed include English (en), Portuguese (pt), Deutsch (de), Espanol (es), Français (fr), Italiano (it), and the home site (Greek). To the left, there are collapsed sections for 'Language Masters language-masters', 'United States us', 'Canada ca', 'Switzerland ch', 'Germany de', 'France fr', 'Spain es', and 'Italy it'.

References

- [Translating Content for Multilingual Sites](#)
- [Configuring the Translation Integration Framework](#)
- [Identifying Content to Translate](#)

Translate Assets, Content Fragments, and Experience Fragments

Introduction

You can translate a content in binaries, metadata, and tags to generate assets for multilingual websites. Adobe Experience Manager (AEM) Assets helps you automate translation workflows on assets.

Objectives

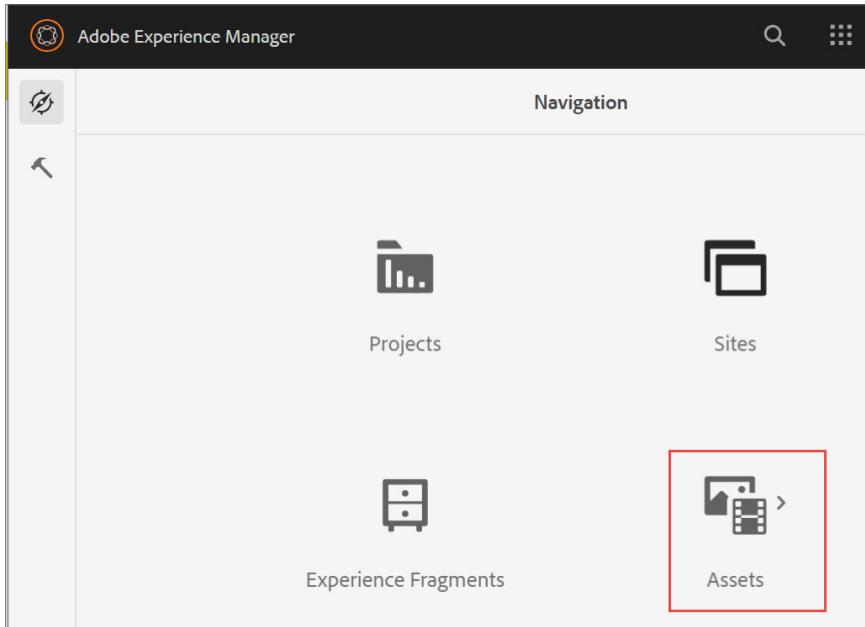
After completing this module, you will be able to:

- Explain AEM assets and multilingual assets
- Create language roots and language copies for assets
- Edit the translation integration configuration for assets
- Translate an image
- Translate a Content Fragment (CF)
- Explain the best practices for translating assets efficiently
- Translate an Experience Fragment (XF)
- Translate a page containing a CF and an XF

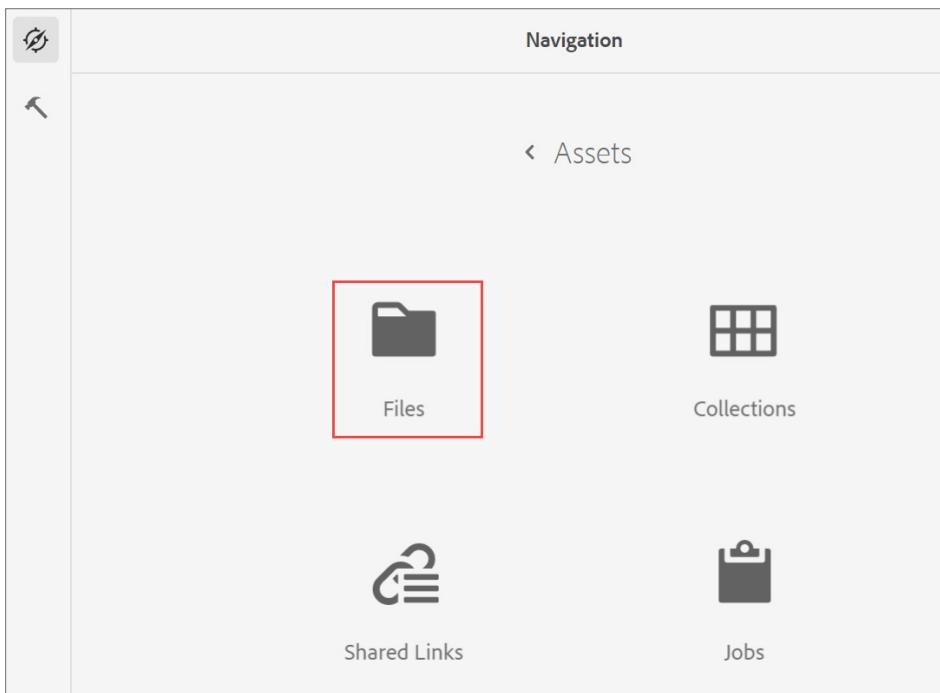
AEM Assets: An Overview

Assets contain valuable digital content in the form of images, videos, documents or audio files. AEM Assets helps you create, store, and deliver images, videos, and other content stored in binary format. The **AEM Assets** console helps import and manage the digital assets and use them in your websites running on AEM.

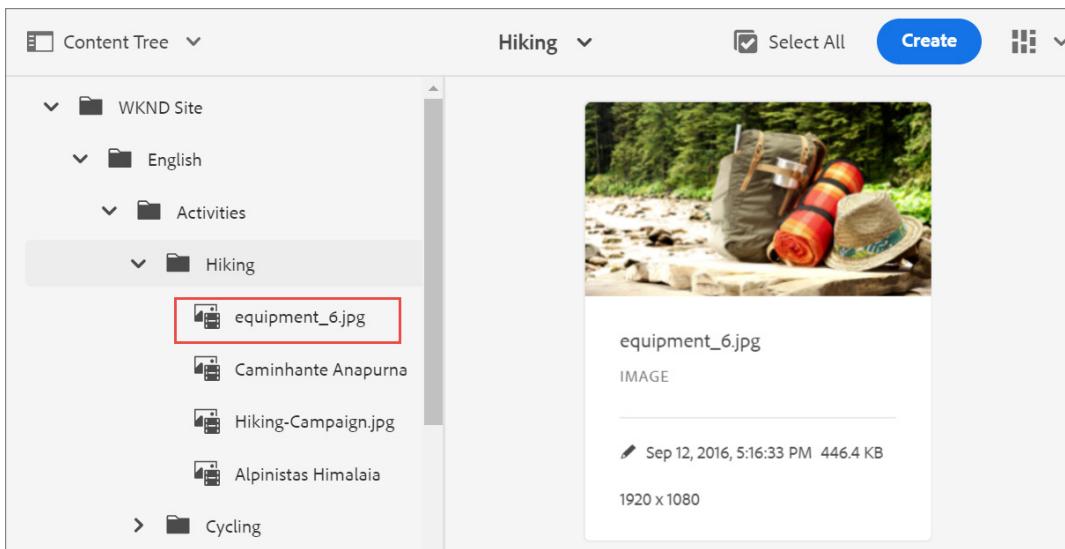
You can access the **Assets** console from **Navigation**, as shown:



To access the hierarchical folder structure of assets, click **Files** from the **Assets** console, as shown:



The assets are organized similar to a file system. The folders create a content hierarchy and the assets are saved in folders, as shown:



You can view the folder hierarchy of assets from the **Column View**, as shown:

The screenshot shows the AEM Assets interface with a folder structure under the 'Hiking' category. The structure is as follows:

- Activities (activities)
- Site (site)
- Magazine (magazine)
- Contributors (contributors)
- Adventures (adventures)
- Hiking (hiking)
 - Cycling (cycling)
 - Skiing (skiing)
 - Climbing (climbing)
 - Camping (camping)
- Equipment (equipment)
 - Caminhantes (hiker-analyst)
 - Hiking-Cards (hiking-cards)
 - Alpinistas Himalaya (alpinists-himalayas.jpg)

A context menu is open on the right side of the interface, listing four view options: Card View, Column View (which is checked), List View, and Insights View. The 'Column View' option is highlighted with a red box.

Supported Asset File Formats

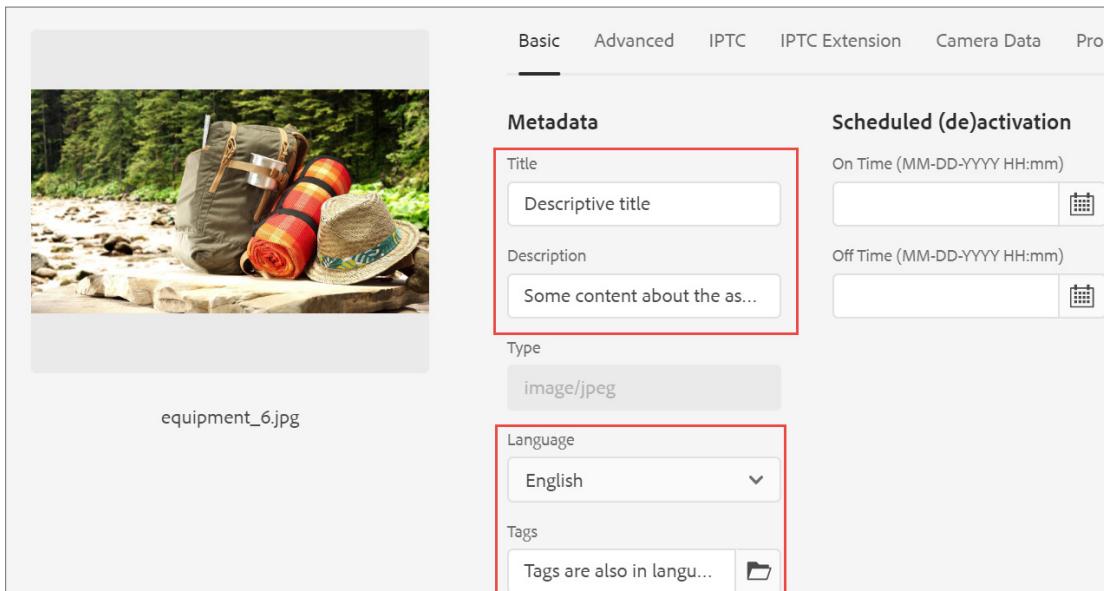
AEM Assets supports different file format types of assets. AEM categorizes supported files into particular media types such as images, documents, multimedia.

The following table lists the files and formats supported by AEM Assets:

Files	Supported formats
Images	PNG, GIF, TIFF, JPEG, BMP, PNM, PGM, PBM, PPM, .PSD*, .EPS, DNG, RAW, PICT, SVG, and PSB
Documents	AI, DOC, DOCX, ODT, PDF, HTML, RTF, TXT, XLS, XLSX, ODS, PPT, PPTX, ODP, INDD, PS, QXP, and EPUB
Multimedia	AAC, MIDI, 3GP, MP3, M4A, MPG, OGA, OGG, RA, WAV, WMA, DVI, FLV, M4V, MPEG, OGV, MOV, WMV, and SWF
Videos	MP4, MOV.QT, FLV, F4V, WMV, ASF, MPG, VOB, M2V, MP2, M4V, AVI, WEBM, OGV, OGG, MXF, MTS, MKV, R3D RM, RAM RM, FLAC, and MJ2
Archive	TGZ, .JAR, .RAR, .TAR, and .ZIP

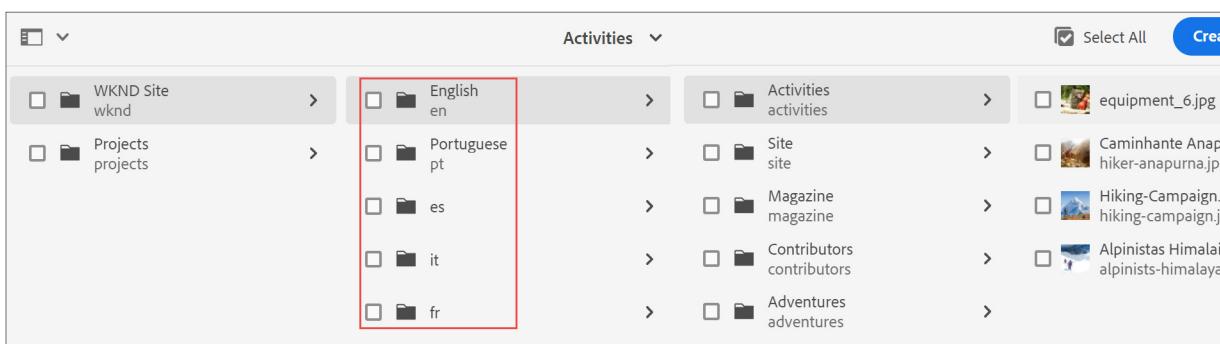
Multilingual Assets

In AEM, assets are made up of binaries, metadata, and tags in one language. The language-specific content is translated to other languages, so that you can use these assets in multilingual experiences. Multilingual assets are organized in language folders, and each folder contains the asset binary and metadata in a specific language, as shown:



Content Structure for Multilingual Assets

For each language, you can create a copy of the asset. The asset folders with ISO language code is the language root and contains the language copies of assets, as shown:



You can use the translation workflows to translate assets to other languages. To automate translation workflows, you need to integrate translation service providers with AEM and create projects for translating assets into multiple languages.

AEM supports human translation and machine translation workflows.

In human translation, the translated assets are imported into AEM. When your translation provider is integrated with AEM, assets are automatically sent from AEM to the translation provider.

The steps to translate assets are:

1. The system administrator installs the translation service provider's connector in AEM
2. The power user:
 - a. Creates language root folders and adds assets to the folder
 - b. Create translation configurations
 - c. Apply translation configurations to folders
 - d. Create translation projects

Exercise 1: Create language roots and language copies for assets

Scenario: As a power user, you want to translate the assets on a website to create a multilingual version of the website.

You need to create a folder structure to support the translated assets in the **Assets** console.

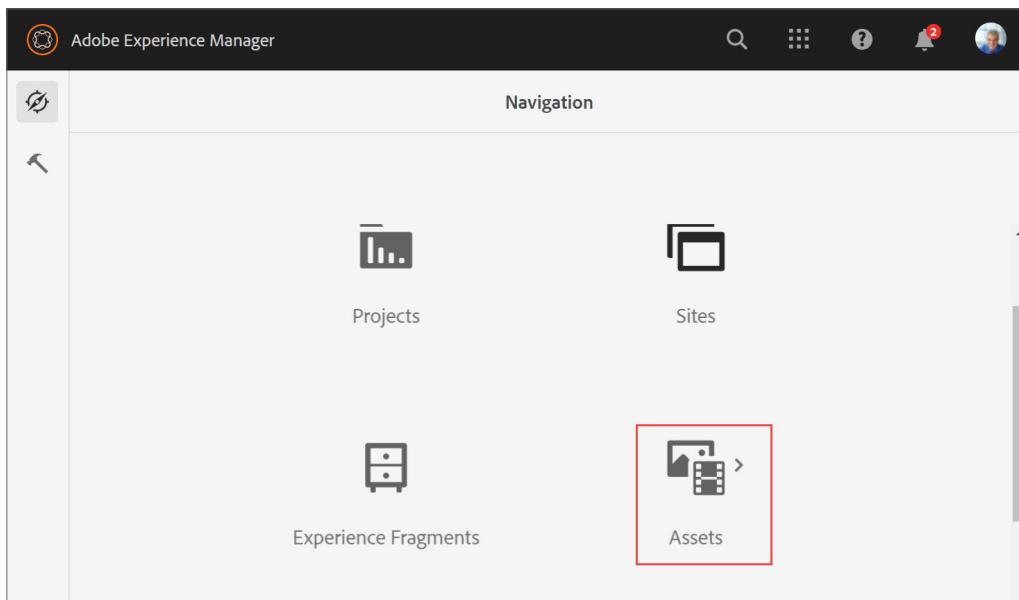
In this exercise, you will perform the following tasks:

1. Create language roots and a language copy
2. Upload a new asset and translate it with machine translation

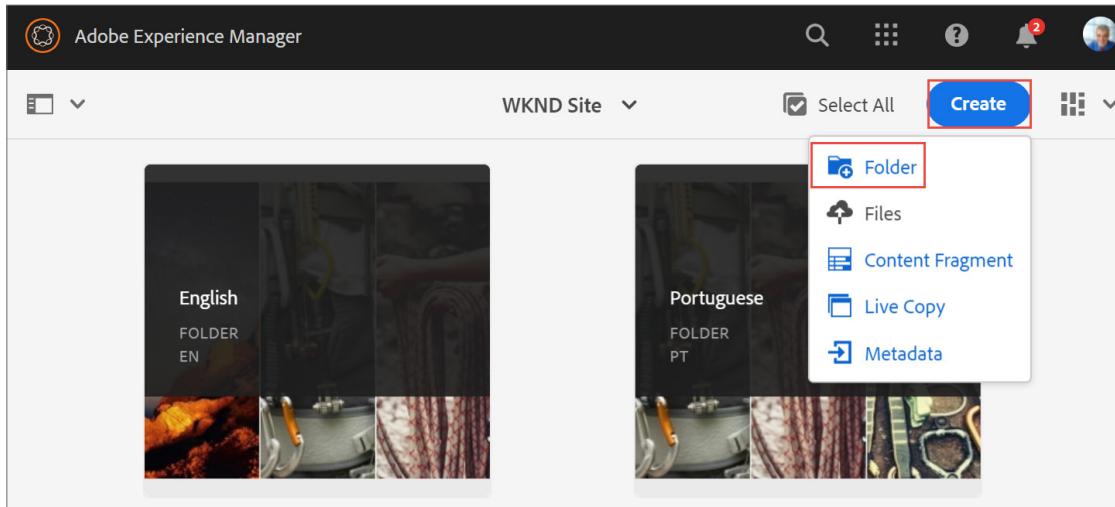
Task 1: Create language roots and a language copy

To create language roots:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Assets**, as shown, to open the console:



3. Click **Files**. The **Assets** page opens.
4. Click **WKND Site** folder to open it.
5. Click **Create** on the actions bar and select **Folder** from the drop-down menu, as shown:



The **Create Folder** dialog box opens.

6. Type **German** in the **Title** box, **de** in the **Name** box and click **Create**, as shown:



The German folder is created within the WKND Site folder.

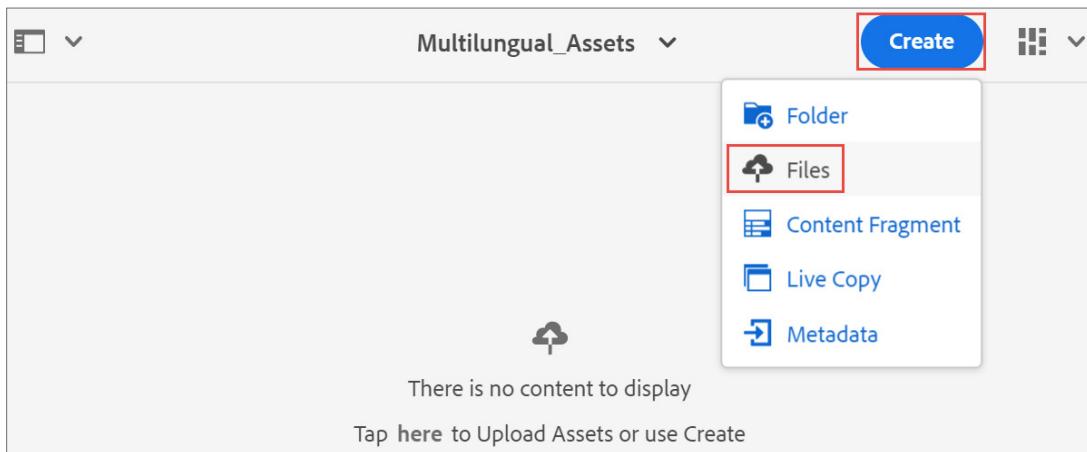
7. Perform steps 5 and 6 and create the Japanese language root folder with **Title** as **Japanese** and **Name** as **ja**. The Japanese folder is created.

To create a language copy that will serve as the container of the assets in the original language:

8. Click the **English** folder to open it.
9. Click **Create** on the actions bar and click **Folder** from the drop-down menu. The **Create Folder** dialog box appears.
10. Enter **Multilingual_Assets** as the **Title**. The **Name** box is auto populated based on the Title.
11. Click **Create**. The **Multilingual_Assets** folder is created.

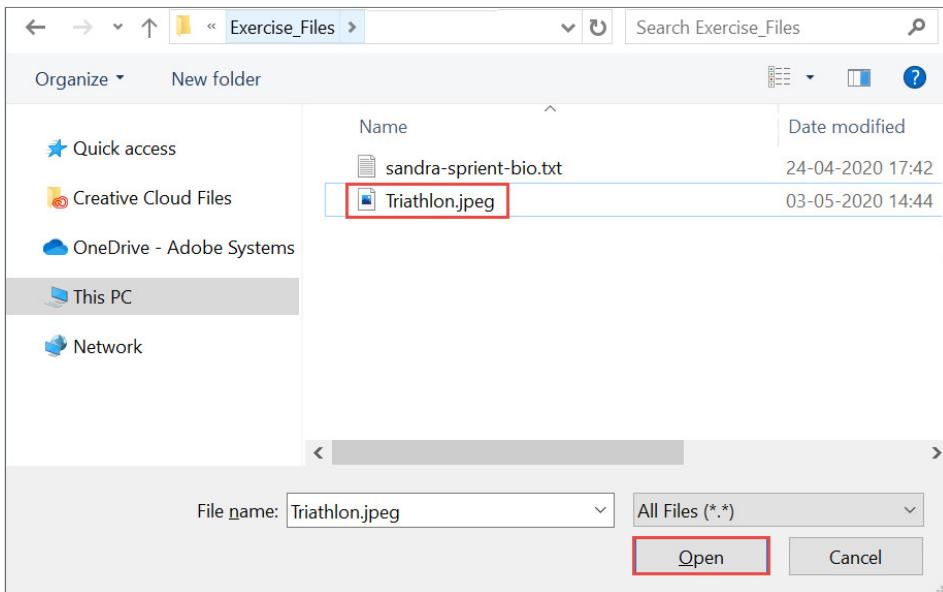
Task 2: Upload a new asset to the language master

1. Click the **Multilingual_Assets** folder to open it.
2. Click **Create** on the actions bar and select **Files** from the drop-down menu, as shown:



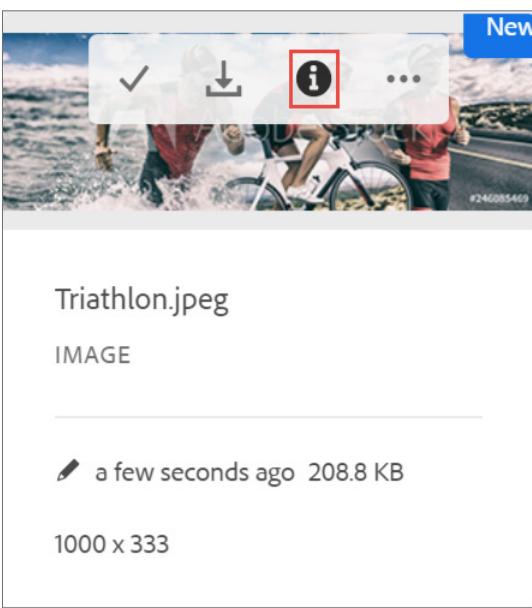
The **Open** dialog box opens.

3. On your file system, navigate to the **Exercise_Files\Translate Assets, CFs, and XFs** folder, select the **Triathlon.jpeg** image and click **Open**, as shown:



The image is selected in **Upload Assets** folder.

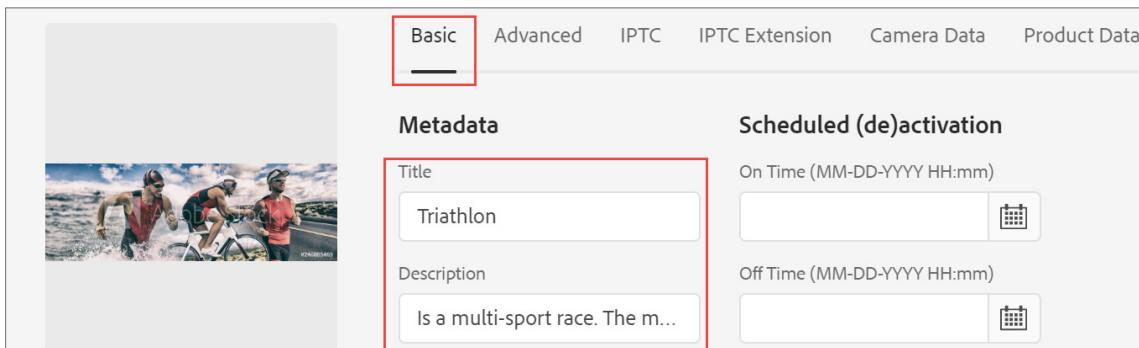
4. Click **Upload**. The image is uploaded to the **Multilingual_Assets** folder.
5. Hover over the **Triathlon** image and click **Properties** from the quick actions bar, as shown:



The **Triathlon** properties page opens.

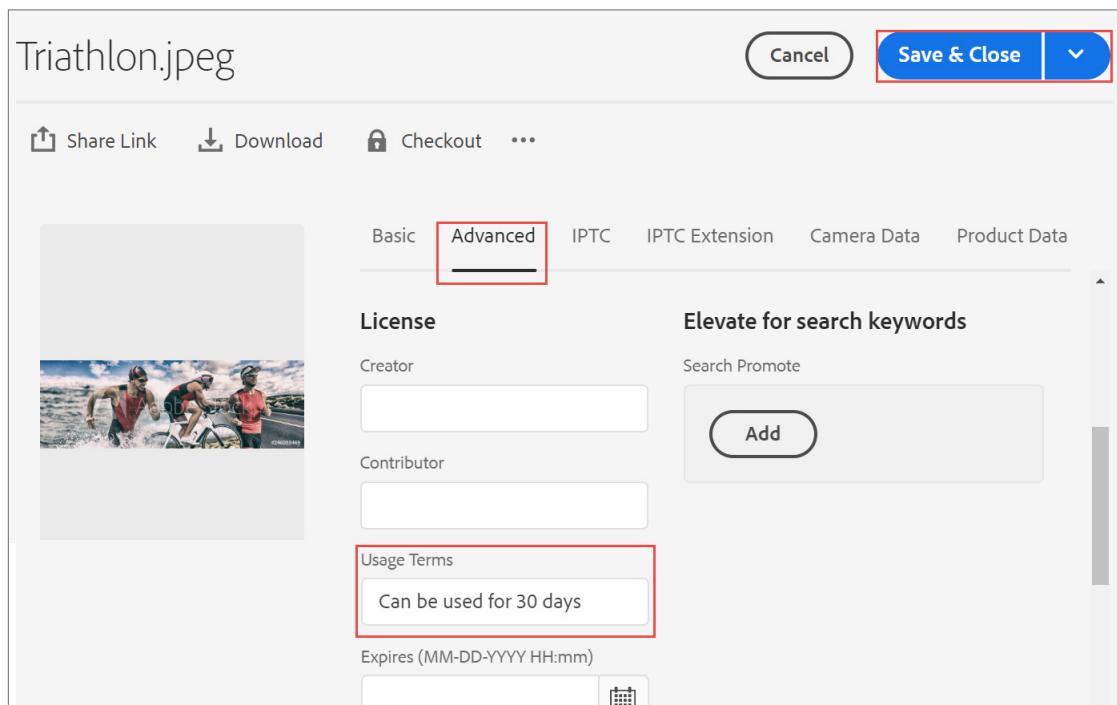
6. On the **Basic** tab, type the following, as shown:

- a. **Title:** Triathlon
- b. **Description:** Is a multi-sport race. The most common form includes swimming, cycling, and running over various distances.



The screenshot shows the Adobe Experience Manager asset editor interface. At the top, there are tabs: Basic (which is selected and highlighted with a red box), Advanced, IPTC, IPTC Extension, Camera Data, and Product Data. Below the tabs, there's a preview image of a triathlon race. To the right of the preview, under the 'Basic' tab, there are two sections: 'Metadata' and 'Scheduled (de)activation'. The 'Metadata' section contains fields for 'Title' (set to 'Triathlon') and 'Description' (set to 'Is a multi-sport race. The m...'). Both the 'Title' and 'Description' fields are highlighted with a red border. The 'Scheduled (de)activation' section contains fields for 'On Time' and 'Off Time', each with a calendar icon.

7. Click the **Advanced** tab and type **Can be used for 30 days** in the **Usage Terms** box and click **Save & Close**, as shown:



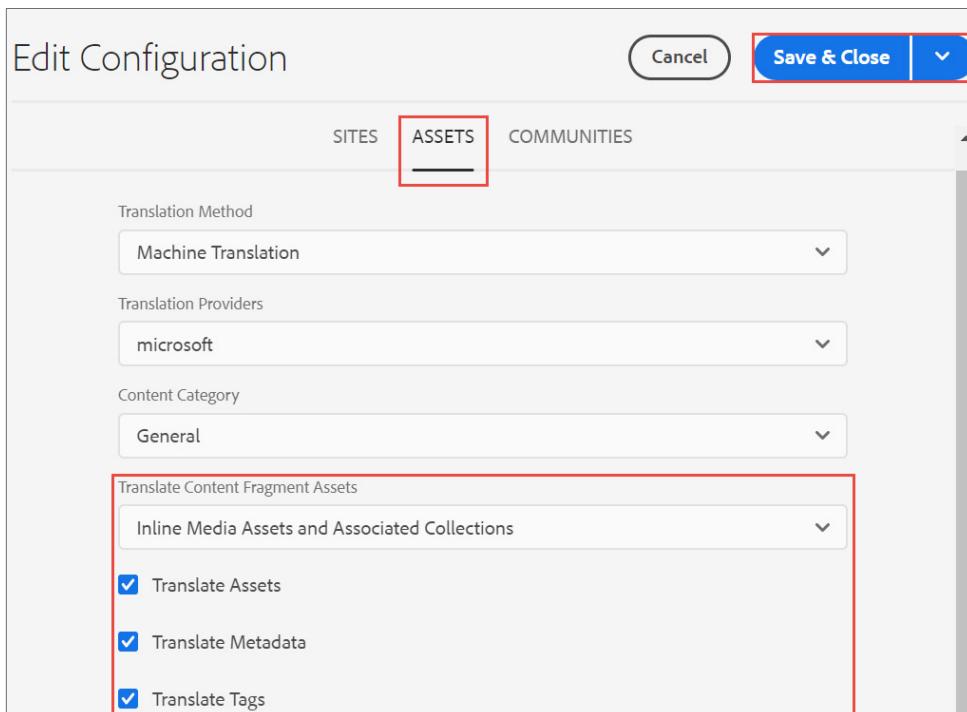
The screenshot shows the Adobe Experience Manager asset editor interface with the 'Advanced' tab selected (highlighted with a red box). The top navigation bar includes 'Share Link', 'Download', 'Checkout', and a 'More' menu. Below the tabs, there are sections for 'License' and 'Elevate for search keywords'. The 'License' section includes fields for 'Creator' and 'Contributor'. The 'Elevate for search keywords' section has a 'Search Promote' field with an 'Add' button. The 'Usage Terms' field is highlighted with a red border and contains the text 'Can be used for 30 days'. At the bottom, there's a 'Expires' field with a calendar icon. In the top right corner, there are 'Cancel' and 'Save & Close' buttons, with 'Save & Close' also highlighted with a red border.

The form has been submitted successfully message appears.

You have uploaded an image and modified its metadata. The image is ready for translation.

Translation Integration Configuration for Assets

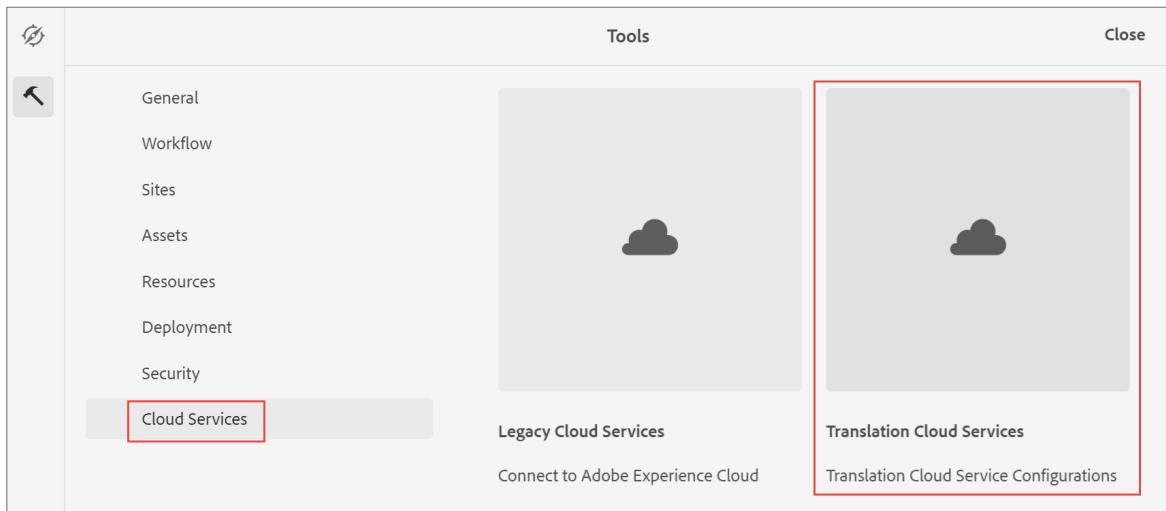
You can configure assets to use a different translation provider from the **Sites** console. You can edit the translation integration configuration for assets from **Tools > Cloud Services > Translation Cloud Services**, as shown:



Exercise 2: Edit the translation integration configuration

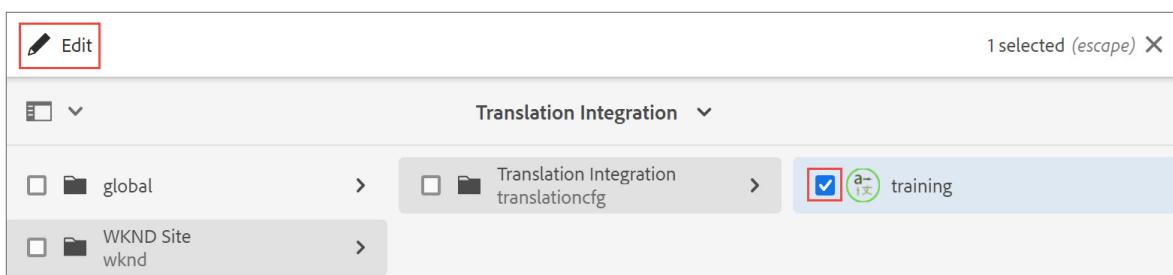
Scenario: As a website manager, you want to configure the global translation integration configuration for assets in the WKND Site to use the website-specific configuration settings.

1. Click **Adobe Experience Manager** on the header bar. The **Navigation** panel opens.
2. Navigate through **Tools > Cloud Services > Translation Cloud Services**, as shown:



The **Translation Integration** console opens.

3. Navigate through **conf > WKND Site > Translation Integration**, select the **Training** configuration and click **Edit** on the actions bar, as shown:



The **Edit Configuration** page opens.

4. Click the **ASSETS** tab and perform the following, as shown:
 - a. Select **Inline Media Assets and Associated Collections** from the **Translate Content Fragment Assets** drop-down menu.
 - b. Select the **Translate Assets**, **Translate Metadata**, **Translate Tags** and **Auto Execute Translation** check boxes.
 - c. Click **Save & Close**.

Edit Configuration

SITES ASSETS COMMUNITIES

Translation Method
Machine Translation

Translation Providers
microsoft

Content Category
General

Translate Content Fragment Assets
Inline Media Assets and Associated Collections

Translate Assets
 Translate Metadata
 Translate Tags
 Auto Execute Translation

Cancel Save & Close

The **form has been submitted successfully** message appears. This confirms that the **Training** configurations are saved.

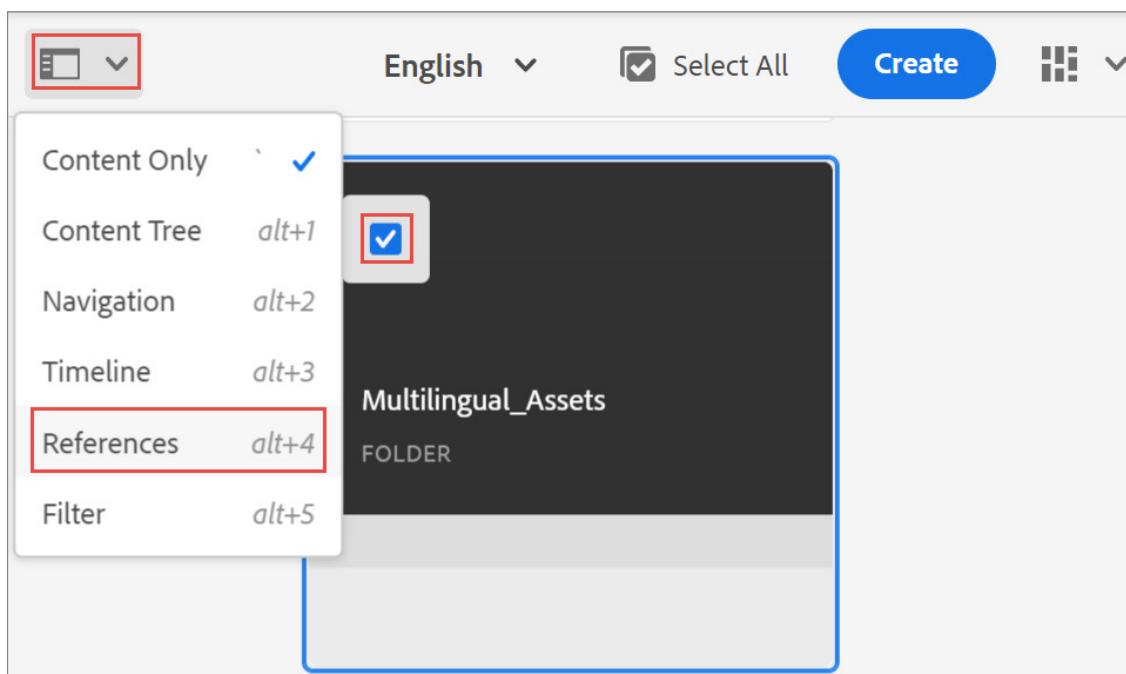
Exercise 3: Translate an image

Scenario: As an author, you want to create a German version of an image.

You can use the translation workflow for assets to create a translated language copy of the image.

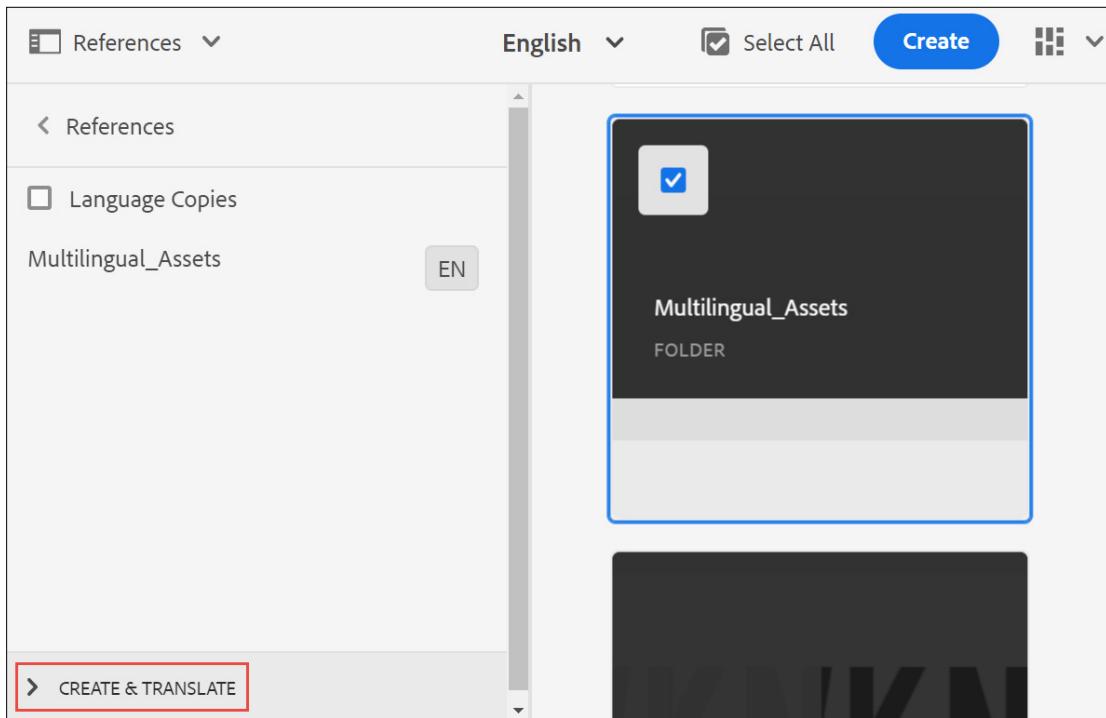
To create a language copy and a translation project:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Navigate through the **Assets > Files > WKND Site > English** folder.
3. Select the **Multilingual_Assets** folder by clicking the check mark icon, click the rail selector icon and select **References**, as shown:



The **References** panel opens.

4. Click **Language Copies** (1). The language copies appear in the panel.
5. Click **CREATE & TRANSLATE** at the bottom of the panel, as shown:



The **CREATE & TRANSLATE** section expands in the panel.

6. In the **CREATE & TRANSLATE** panel, perform the following tasks, as shown:
 - a. Select **German** from the **Languages** drop-down menu.
 - b. Select **Create Translation Project(s)** from the **Project** drop-down menu.
 - c. Enter **Multilingual Asset Translation** in the **Title** box.
 - d. Click **Create**.

The screenshot shows the 'CREATE & TRANSLATE' panel with the following fields highlighted by a red border:

- Languages***: A dropdown menu showing "Select" with "German" chosen, indicated by a small "X" icon.
- Project***: A dropdown menu showing "Create Translation Project(s)".
- Title***: An input field containing "Multilingual Asset Translation".

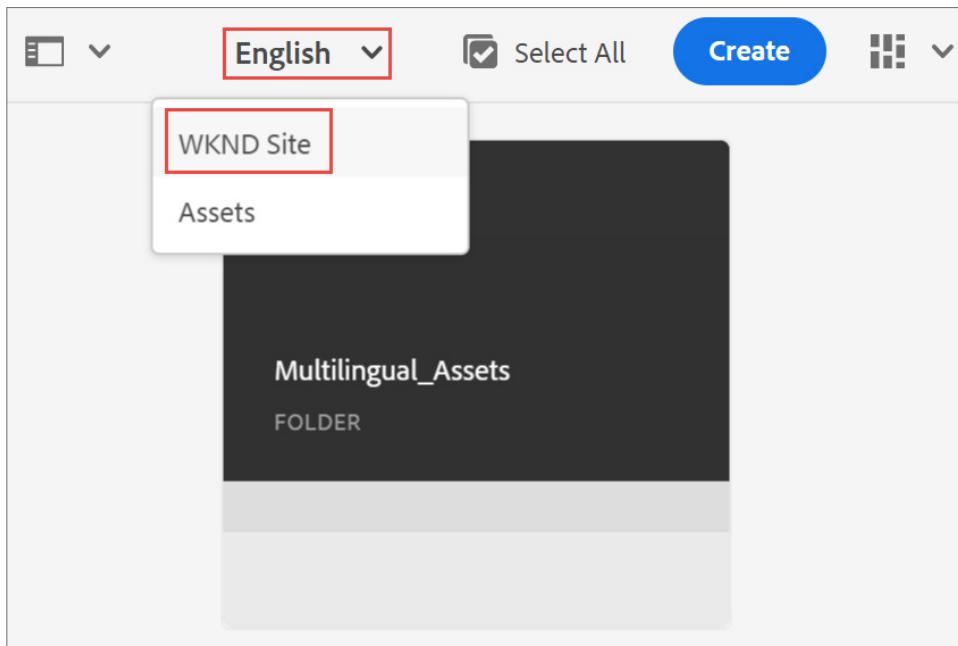
A large blue button at the bottom right is labeled "Create".

The **Translation project created (de)** message appears at the bottom of the page.

7. Notice that a new language copy **Multilingual_Assets DE** is added to the **Language Copies** list in the **References** panel.
8. Click **1 selected (escape) X** at the top-right corner on the actions bar to clear the selected **Multilingual_Assets** folder.

To view the language copy and if the image metadata is translated into German:

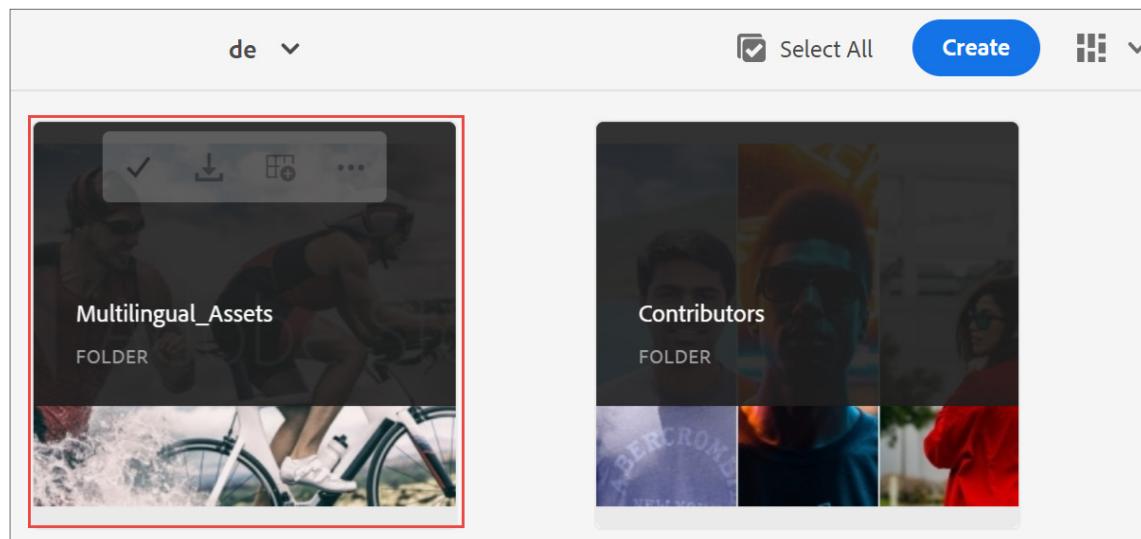
9. Click **English** on the breadcrumb and select **WKND Site** from the drop-down menu, as shown:



The **WKND Site** folder opens.

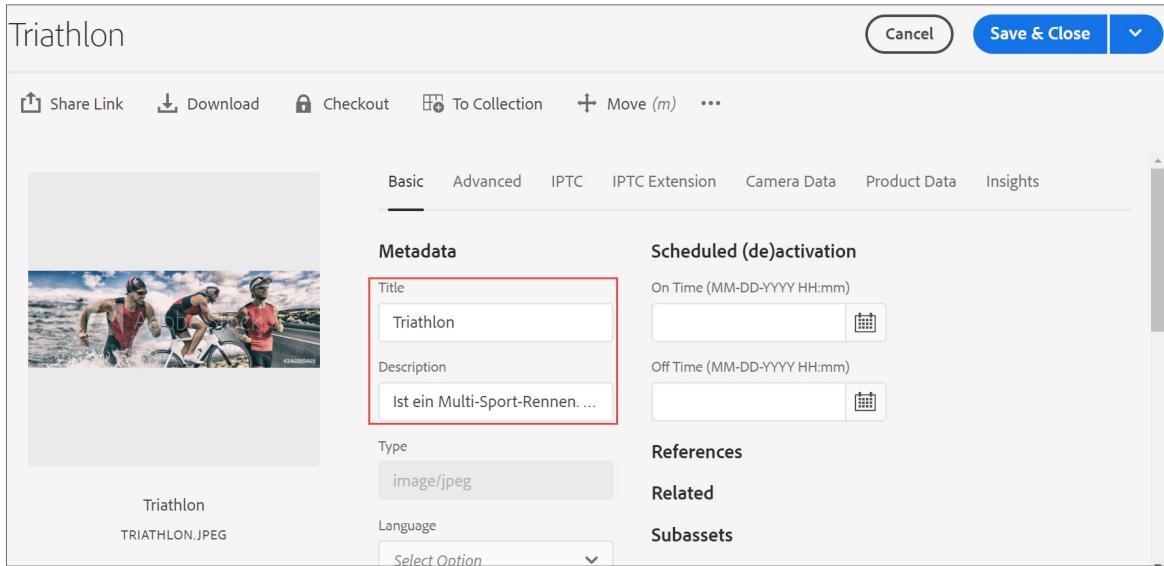
10. Click **German** or **DE** folder to open it.

11. Notice that the language copy of **Multilingual_Assets** folder with the **Triathlon** image is created, as shown:



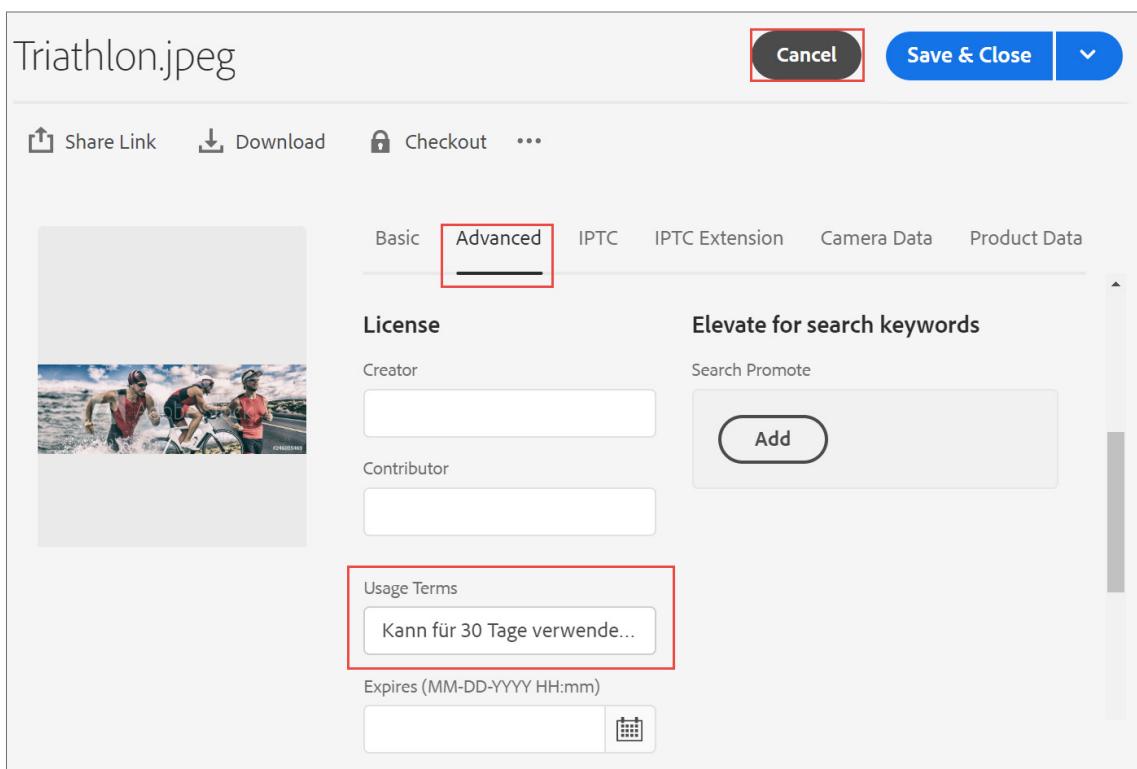
12. Click the **Multilingual_Assets** folder to open it, select the **Triathlon** image and click **Properties (p)** on the actions bar. The **Triathlon** properties page opens.

13. On the **Basic** tab, notice that the **Title** and **Description** boxes are translated to German, as shown:



14. Click the **Advanced** tab and notice that the **Usage Terms** box is translated to German.

15. Click **Cancel**, as shown, to close the properties page:



Translate CFs

AEM includes a content type called CFs. The CFs:

- Help create, curate, and publish page-independent content
- Help prepare content for use in multiple channels
- Are created and managed as assets
- Help you create variations of content

AEM supports language copy workflows for CFs including CF variations. Although a CF is a multi-part content type that combines text with one or more asset contained in collections, you need to submit the CF only once for translation. All content included in the CF, such as associated assets and content variations, are translated. In each translation job, the entire CF is sent for translation.

The translation workflow supports the initial translation of assets and updates the content of already translated CFs, similar to pages.

Create and Translate

Similar to pages, CFs that are translated for the first time, the source CF is copied to the same location below the language root of the target language. If a translation project already exists for the target language, you can add the CF to it. Otherwise, you need to create a new translation project.

The **CREATE AND TRANSLATE** menu in the **References** panel includes the following options:

- Create structure only
- Create a new translation project
- Add to existing translation project

Update Language Copies

When the source CF is updated or modified, the corresponding locale or language specific CF requires retranslation. The **UPDATE LANGUAGE COPIES** workflow coordinates the changes in the target language CF.

The update language copies workflow includes the following options:

- Create a new translation project
- Add to the existing translation project

The procedural steps associated with each option are similar to those associated with the corresponding option for assets.

Translating Mixed Media Fragments

AEM helps translate CFs that include various types of media assets and collections. If you translate a CF that includes inline assets, the translated copies of these assets are stored under the target language root.

If the CF includes a collection, the assets within the collection are translated along with the CF. The translated copies of the assets are stored within the appropriate target language root at a location that matches the physical location of the source assets under the source language root.

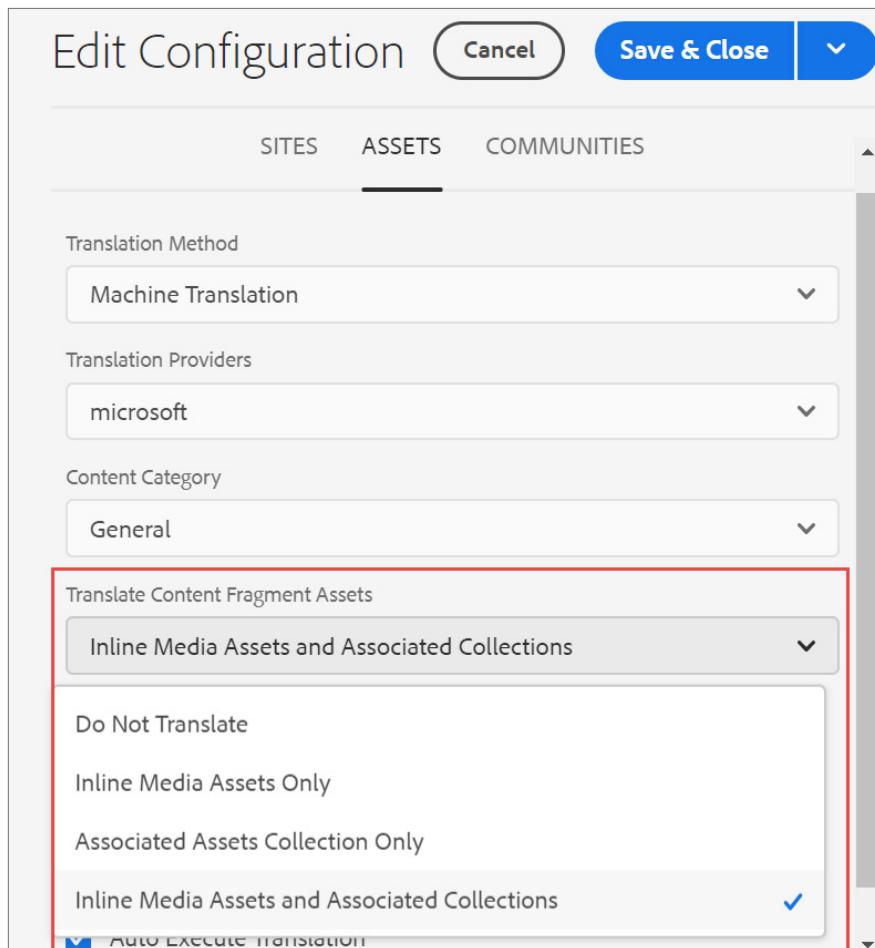
To translate CFs that include mixed media, first edit the default translation framework to enable the translation of inline assets and collections associated with CFs.

Configure CF Translation

You can configure and edit the Translation configuration for CF from **Tools > Cloud Services > Translation Cloud Services > Assets tab**.

- Do not translate
- Inline Media assets only
- Associated Assets collections only
- Inline Media Assets and Associated collections

The following screenshot displays these options:



Exercise 4: Translate a CF

Scenario: As an author, you want to write a story about an event. Your text in English and images needs to be translated into German.

You need to create a CF and translate it, before the story is published.

In this exercise, you will perform the following tasks:

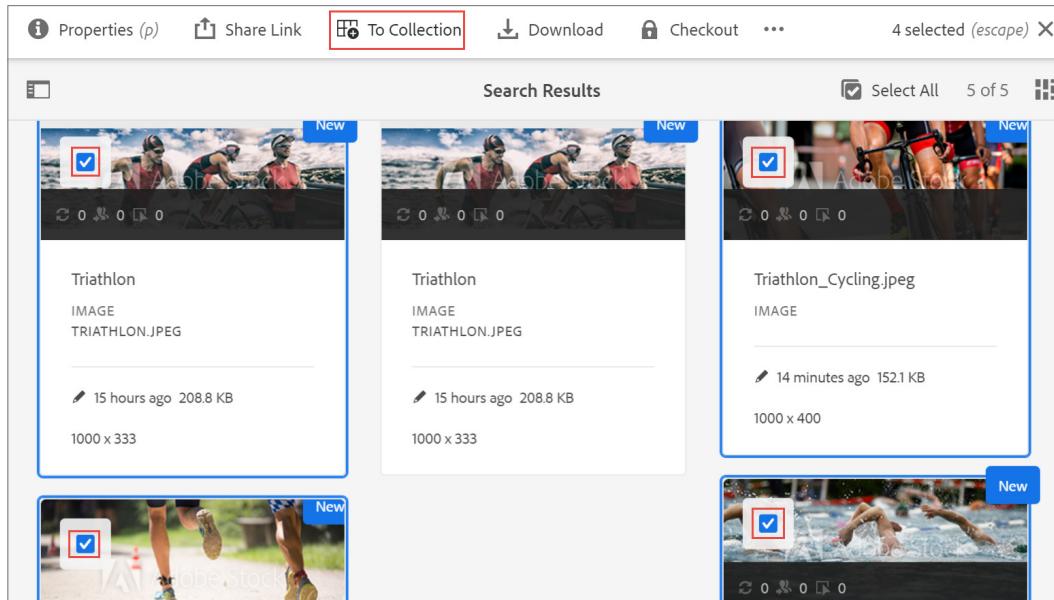
1. Create an asset collection
2. Create a CF
3. Create a translation project for other languages from the References panel
4. View the translated CF

Task 1: Create an asset collection

In this task, you will create an assets collection to use it as an associated content in the CF.

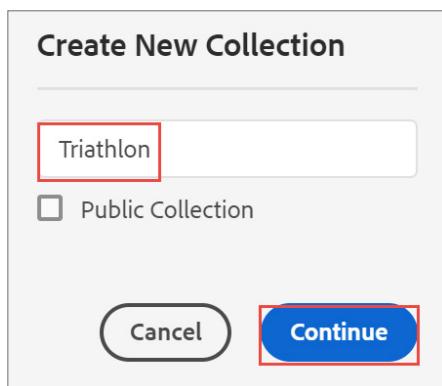
1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Assets** console to open it.
3. Press the / key on the keyboard to open the omni search field.
4. Type **triathlon** in the field and press the Enter key. A list of images related to triathlon is displayed.

5. Select few assets by clicking the check mark and click **To Collection** on the actions bar, as shown:



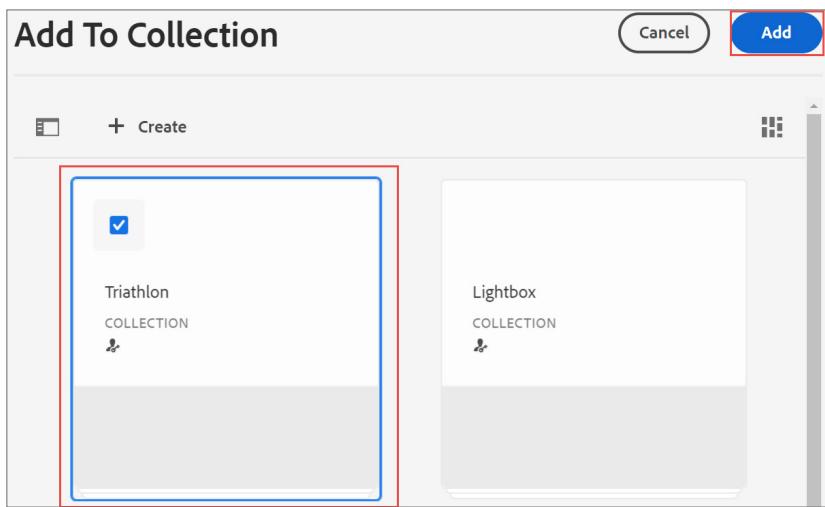
The **Add To Collection** dialog box opens.

6. Click **Create**. The **Create New Collection** dialog box appears.
 7. Type **Triathlon** in the **Title** box and click **Continue**, as shown:



The **Add to Collection** dialog box opens.

8. Ensure the **Triathlon** folder is selected and click **Add**, as shown:



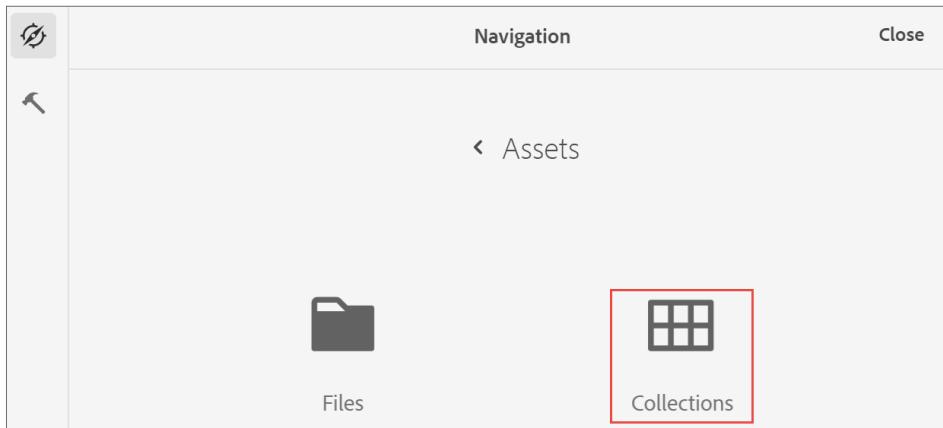
The **Add to Collection** success message box opens.

9. Click **Close**.

10. Click **x** at the top-right corner to close the omni search field.

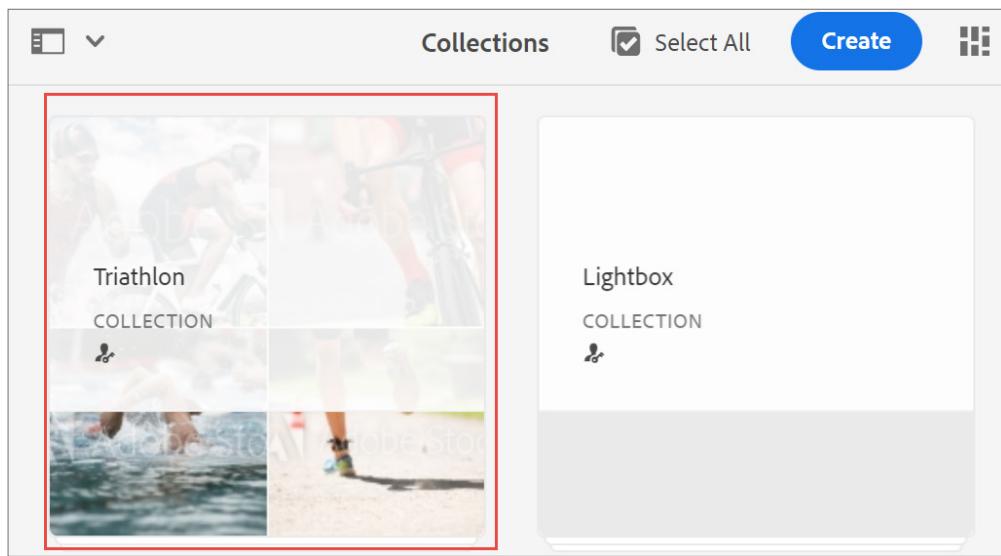
11. Click **Adobe Experience Manager** from the header bar. The **Assets** console opens.

12. Click **Collections**, as shown:



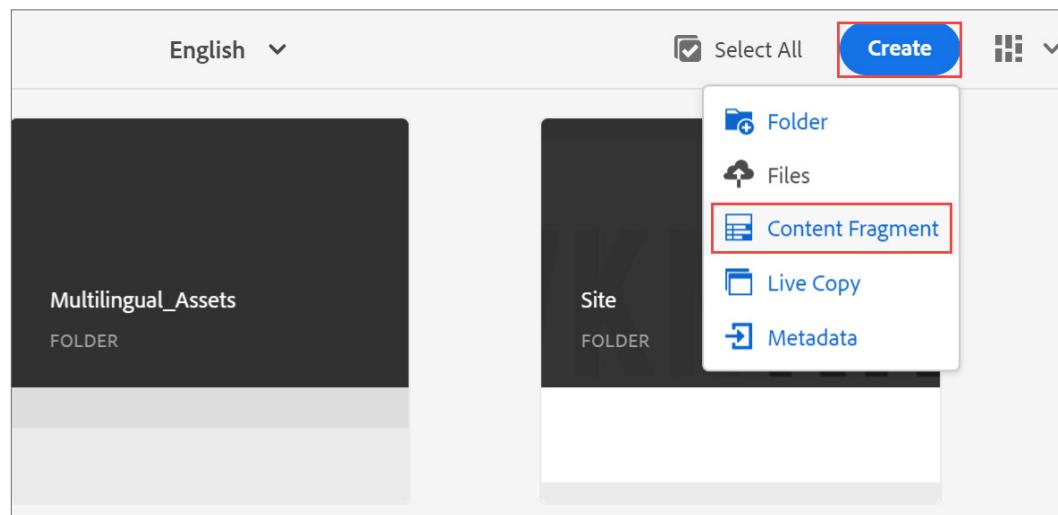
The **Collections** page opens.

13. You can view the newly added **Triathlon** collection, as shown:



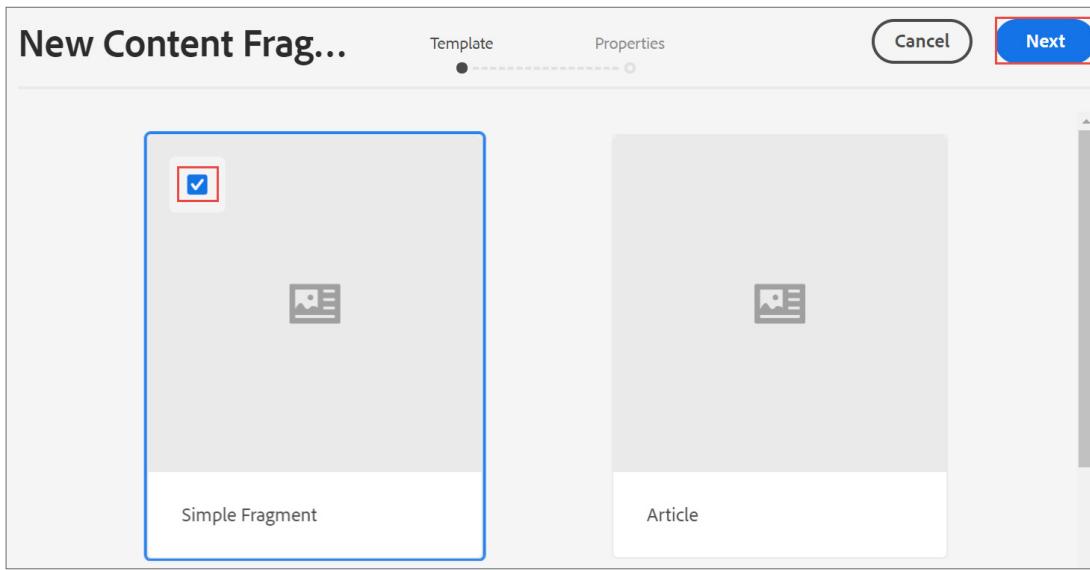
Task 2: Create a CF

1. Click **Adobe Experience Manager** on the header. The **Assets** console opens.
2. Navigate to the **Files > WKND Site > English** folder.
3. Click **Create** on the actions bar and select **Content Fragment** from the drop-down menu, as shown:

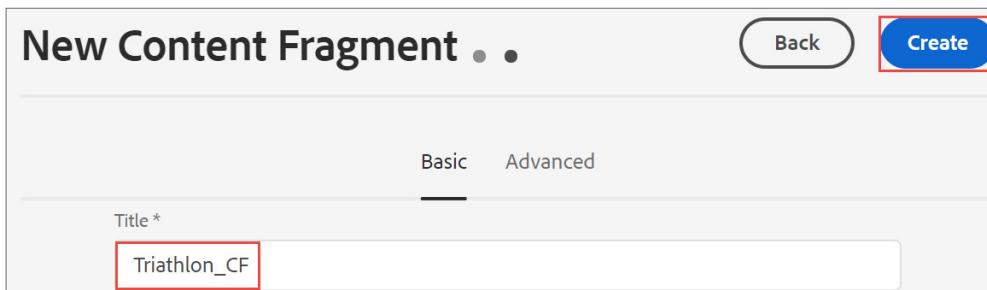


The **New Content Fragment** wizard opens.

4. In the **Template** section of the wizard, select the **Simple Fragment** template and click **Next**, as shown:



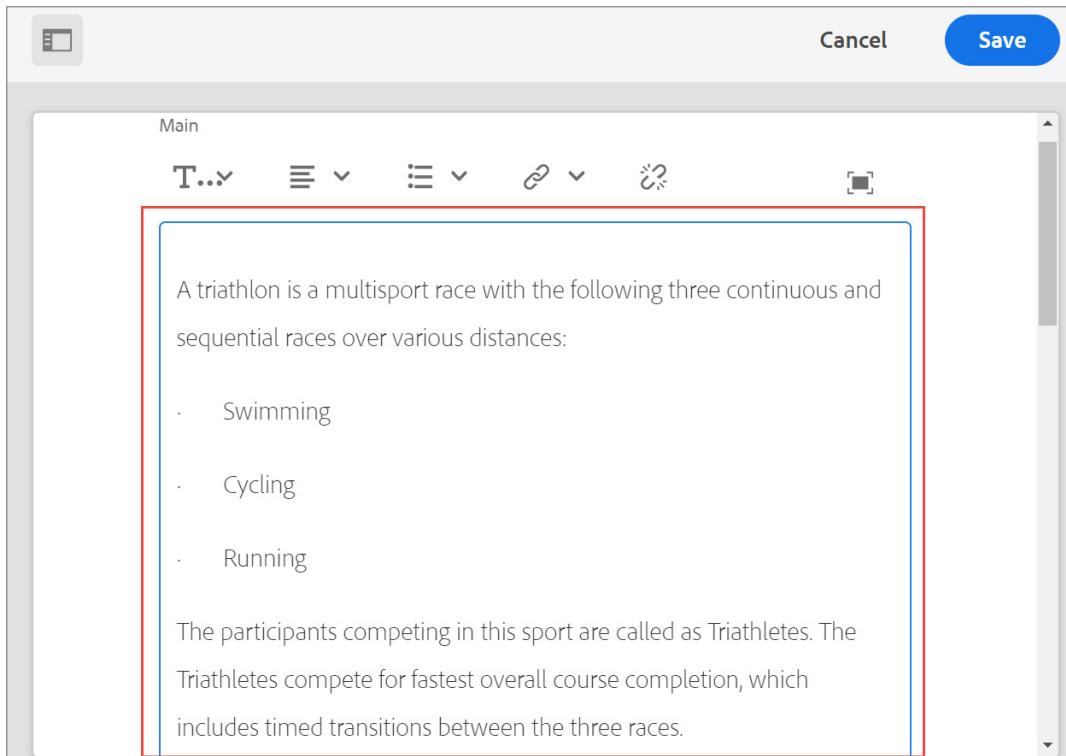
5. In the **Properties** section of the wizard, type **Triathlon_CF** in the **Title** box and click **Create**, as shown:



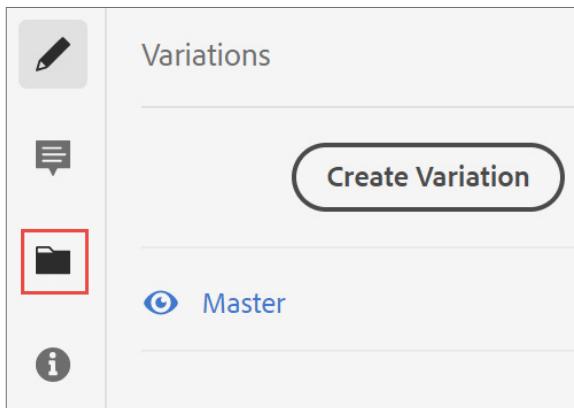
The **Success** dialog box appears.

6. Click **Open**. The **Triathlon_CF** page opens.

7. In the **Exercise Files** provided to you, navigate to the **Translate Assets, CFs, and XFs** folder, open the **Triathlon_CF.txt** file and copy the content.
8. Open the **Triathlon_CF** tab of the browser and paste the content to the **Main** section, as shown:



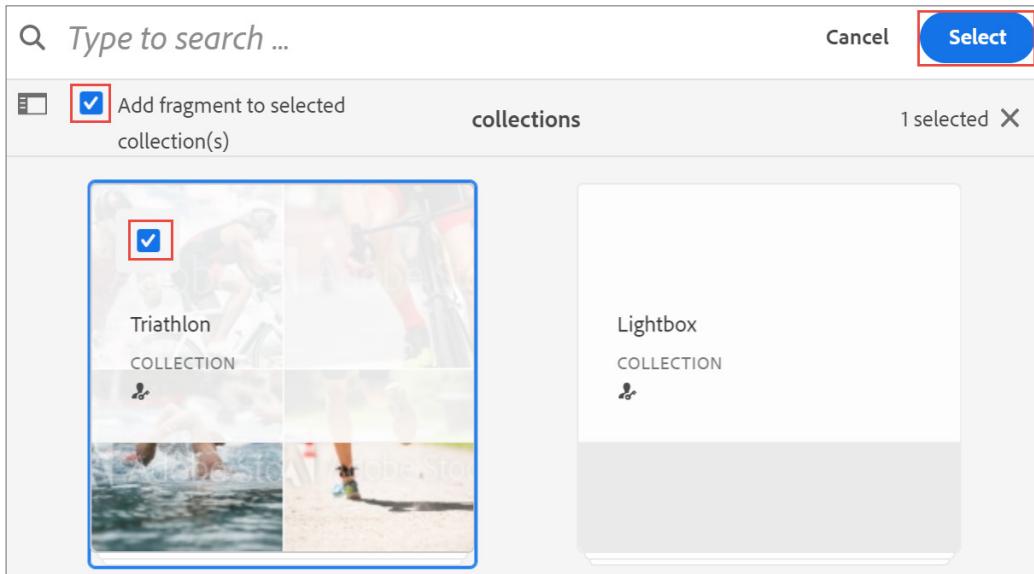
9. Click the **Associated Content** icon from the side panel, as shown:



The **Associate Content** section opens.

10. Click **Associate Content**. The **collections** wizard opens.

11. Select **Triathlon** collection and **Add fragment to selected collection(s)** check boxes and click **Select**, as shown:



The **Triathlon_CF** page opens. The collection is now added to the CF.

12. Click **Save** at the top-right corner of the page. The **Assets** console opens.

Task 3: Create a translation project for other languages from the References panel

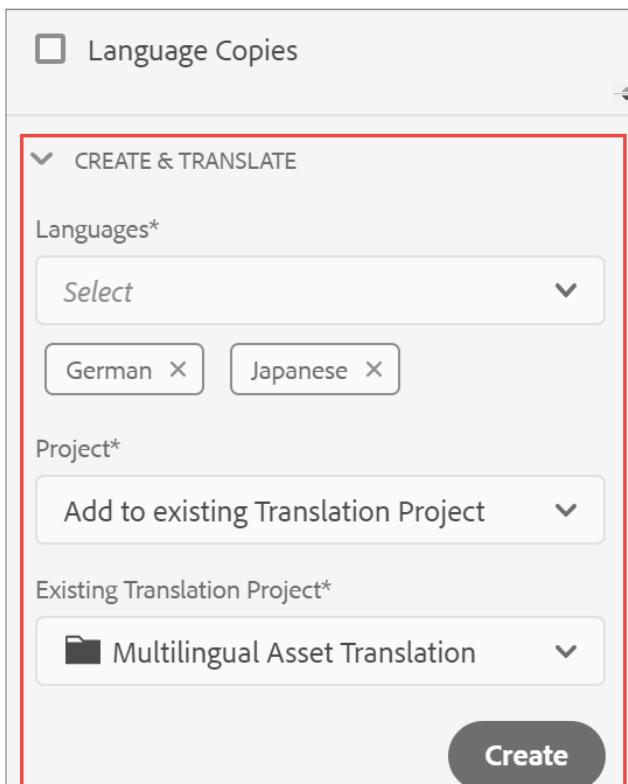
1. In the **Assets** console, navigate through the **Files > WKND Site > English** folder and select **Triathlon_CF**.
2. Click the rail selector icon and select **References** from the drop-down menu. The **References** panel opens.
3. Click the arrowhead beside **Language Copies (1)**. The **Language Copies** panel shows the language copies available for the assets.

4. Click **CREATE & TRANSLATE** at the bottom of the panel, as shown:

The screenshot shows the 'References' panel in Adobe Experience Manager. On the left, there's a sidebar with 'References' and 'Language Copies' sections. A file named 'triathlon_cf' is listed under 'Language Copies' with a status of 'Updated a minute ago'. The main area displays a card for a 'triathlon' entry. The card has a 'New' button in the top right corner. The card content includes a checked checkbox followed by text about triathlon being a multisport race with three sequential races over various distances, and a bulleted list of 'Swimming', 'Cycling', and 'Running'. Below this, a question asks for the name of participants in the sport. At the bottom of the card is a small image of two triathletes in action. The bottom of the screen features a footer bar with a red-bordered 'CREATE & TRANSLATE' button.

The **CREATE & TRANSLATE** section expands in the panel.

5. In the **CREATE & TRANSLATE** panel, perform the following tasks, as shown:
 - a. Select **German** and **Japanese** from the **Languages** drop-down menu.
 - b. Select **Add to existing Translation Project** from the **Project** drop-down menu.
 - c. Select **Multilingual Asset Translation** from the **Existing Translation Project** drop-down menu.
 - d. Click **Create**.



The **Selected asset(s) have been added to translation project 'Multilingual Asset Translation'** message appears.

6. Click 1 selected (escape) x at the top-right corner on the actions bar to clear the selected **Triathlon_CF**.

Task 3: View the translated CF

1. Click **Adobe Experience Manager** from the header bar. The **Assets** console opens.
2. Click the arrowhead beside **Assets** and click **Projects**. The **Projects** console opens.
3. Click **Multilingual Asset Translation**. The project opens.
4. Click **Multilingual Asset Translation [DE] PROJECT** tile. The **Multilingual Asset Translation [DE]** page opens.
5. In the **Translation Job [DE]**, notice that the one CF is added for translation.

6. Click the ellipsis in the **Translation Job [DE]**, as shown:

The screenshot shows a card-based interface for a 'Translation [DE]' job. At the top, it says 'Translation Job [DE]'. Below are several sections with icons and values: Status (Approved), Target (German), Pages (0), Assets (0), Content Fragments (1, highlighted with a red box), I18n Dictionaries (0), and Tags (0). At the bottom right is an ellipsis button (...).

Category	Value
Status	Approved
Target	German
Pages	0
Assets	0
Content Fragments	1
I18n Dictionaries	0
Tags	0

The **Translation Job [DE]** details page opens.

7. Select the **triathlon_cf** folder and click **Reveal in Content Fragment** on the actions bar, as shown:

Icon	Title	Path	Status	State	Resource Type
<input checked="" type="checkbox"/>	triathlon_cf	/content/dam/wknd/de/triathlon_cf	New	Approved	Content Fragment
<input type="checkbox"/>	Tags Metadata		New	Approved	Tags Metadata

The CF opens on a new tab of the browser.

8. Notice that the CF is translated to German, as shown:

Wichtigsten

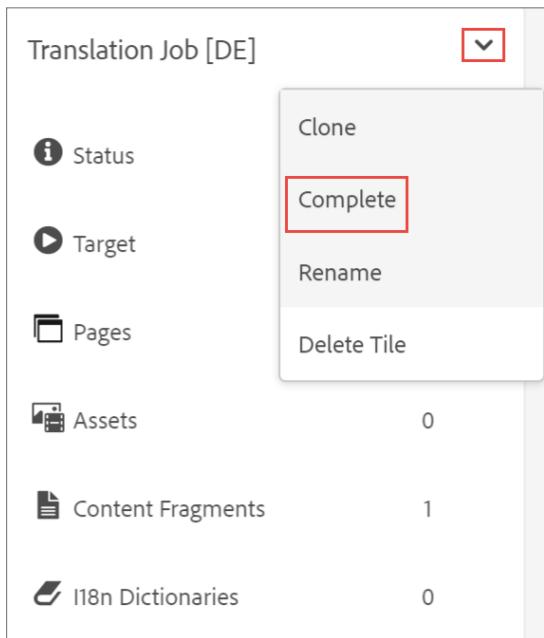
Ein Triathlon ist ein Multisport-Rennen mit den folgenden drei kontinuierlichen und sequentiellen Rennen über verschiedene Distanzen:

- Schwimmen
- Radfahren
- Ausgeführte

Die Teilnehmer, die in diesem Sport antreten, werden als Triathleten bezeichnet. Die Triathleten kämpfen um den schnellsten

9. Click **Cancel** to close the page.

10. Open the **Translation Job [DE]** | **Translation Job** tab of the browser to open the details page.
11. Click **Translation Job [DE]** on the breadcrumb and select **Multilingual Asset Translation [DE]** from the drop-down menu to open the dashboard.
12. Click the arrowhead on the **Translation Job [DE]** tile and click **Complete** from the drop-down menu, as shown:

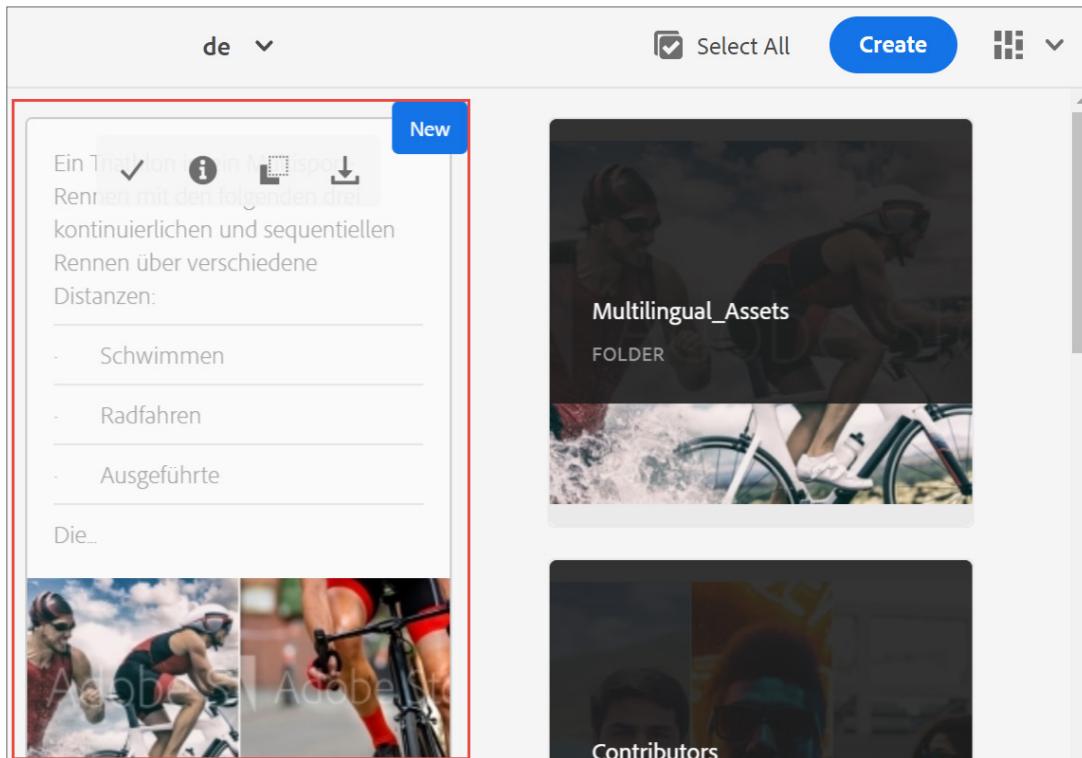


The **Updated Translation Job status to Complete** message appears.

To view the translated CF in Assets console:

13. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
14. Click **Assets** to open the console.

15. Navigate through the **Files > WKND Site > German or de** folder. Notice that the translated **Triathlon_CF** is available, as shown:



16. Click **German** or **de** on the breadcrumb and select **WKND Site** from the drop-down menu to open the **WKND Site** folder.
17. Click the **Japanese** or **Ja** folder to open it. Notice that the translated **Triathlon_CF** is available.

Translate XFs

The content stored in XF enables content authors to reuse content with the styles and layout already applied through a template.

AEM enables you to translate XFs and variations by creating a:

- Translation project from the Projects console
- Language copy from the References panel

Translate XFs from the Projects Console

When you create a translation project from the Projects console, you must provide basic information, such as:

- **Title:** The name of the project
- **Source Language:** The language of the source content
- **Target Language:** The language to which the content is being translated
- **Translation Method:** The method, Human or Machine translation, to be used when translating the content

After you specify the basic information, you must create language copies of the XFs and variations from the **References** panel in the **Experience Fragments** console, as shown:



You can add the source XFs to the **Translation Job** in the **Projects** console and then start translating the XFs and variations.

Translate XFs from the References Panel

You can create a translation project to translate XFs and variations directly from the **Experience Fragments** console. You must select the specific XFs from the language master branch and the language copies for which you are performing the translation in the **References** panel.

To create a language copy, you can trigger one of the language copy workflows by clicking an available option in the **References** panel:

- **Create & Translate:** XFs and variations to be translated are copied to the language root of the target language.
- **Update Language Copies:** Additional XFs or variations are translated and included in a language copy for a particular locale. The translated assets are added to the target folder that already contains previously translated assets.

You can navigate to the **Properties** page in the **Projects** console to change the translation method to human translation, if required.

XFs are treated like assets on pages where the hypertext reference (`href`) path is translated to the correct language path.

Exercise 5: Translate an XF

Scenario: As an author of a multilingual website, you need to translate an XF from English to Dutch.

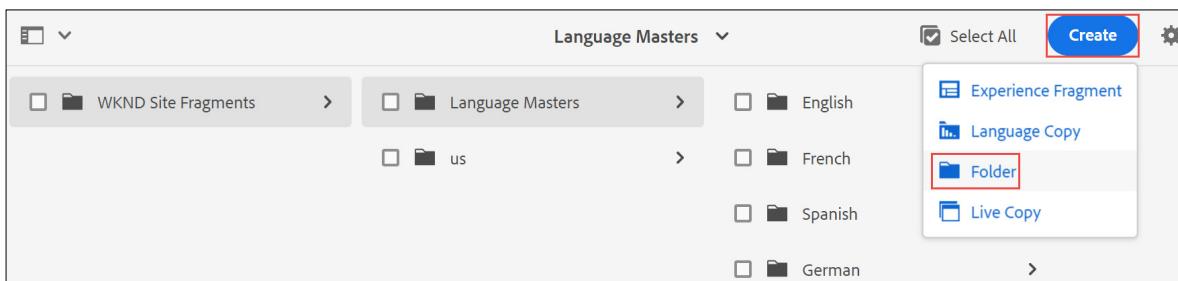
You need to use the translation workflow to translate an XF and its variations.

In this exercise, you will perform the following tasks:

1. Create a translation project for XF
2. Translate the XF

Task 1: Create a translation project

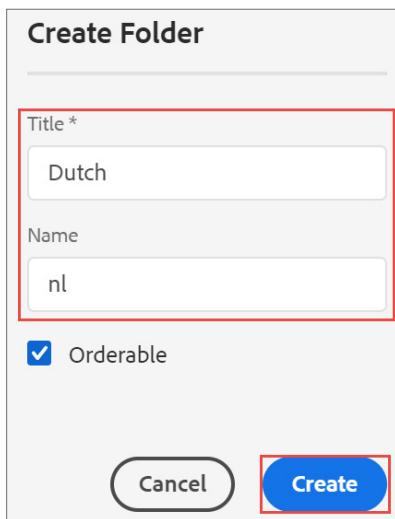
1. Click the **Adobe Experience Manager** icon from the header bar. The **Assets** page opens.
2. Click the arrowhead next to Assets to open the **Navigation** panel.
3. Click **Experience Fragments** to open the console.
4. Navigate through the **WKND Site Fragments > Language Masters** folder, click **Create** on the actions bar and select **Folder** from the drop-down menu, as shown:



The **Create Folder** dialog box opens.

5. Type **Dutch** in the **Title** box and **nl** in the **Name** box.

6. Ensure the **Orderable** check box is selected and click **Create**, as shown:

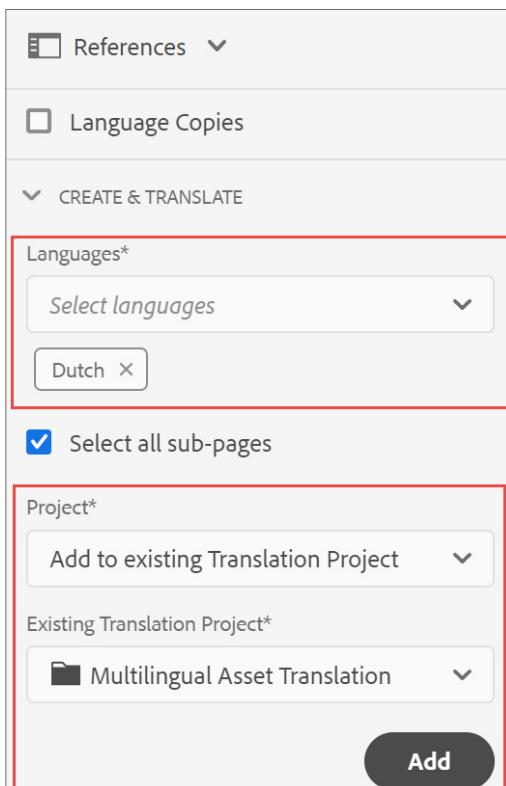


The **Dutch** folder is added to **Language Masters**.

7. Navigate to the **WKND Site Fragments > Language Masters > English > Contributors** folder and select the **Stacey Rosewells XF**.
8. Click the rail selector icon and select **References** from the drop-down menu.
9. Click **Language Copies (7)** to view the list of language copies.
10. Click **CREATE & TRANSLATE** at the bottom of the panel, as shown:

The **CREATE & TRANSLATE** panel expands.

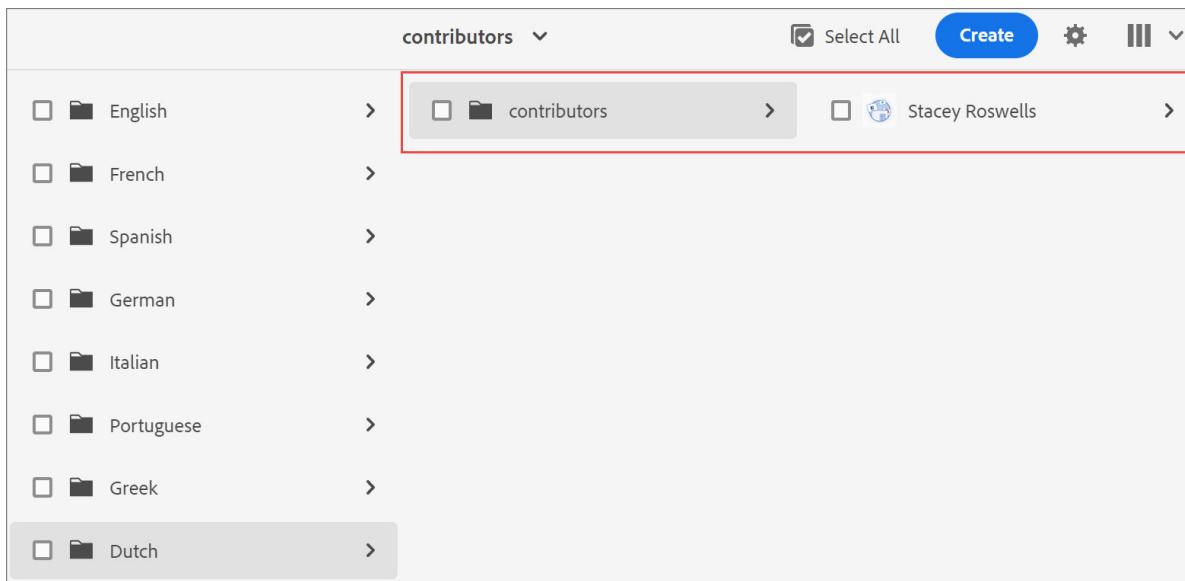
11. In the **CREATE & TRANSLATE** panel, perform the following tasks, as shown:
- Select **Dutch** from the **Languages** drop-down menu.
 - Select **Add to existing Translation Project** from the **Project** drop-down menu.
 - Select **Multilingual Asset Translation** from the **Existing Translation Project** drop-down menu.
 - Click **Add**.



The **Selected pages have been added to translation project 'Multilingual Asset Translation'** message appears.

12. Click **1 selected x** at the top-right of the actions bar to clear the selected **Stacey Rosewells** folder.

13. Navigate to the **Dutch** folder and notice that the **contributors** folder along with **Stacey Rosewells XF** is added to the folder, as shown:

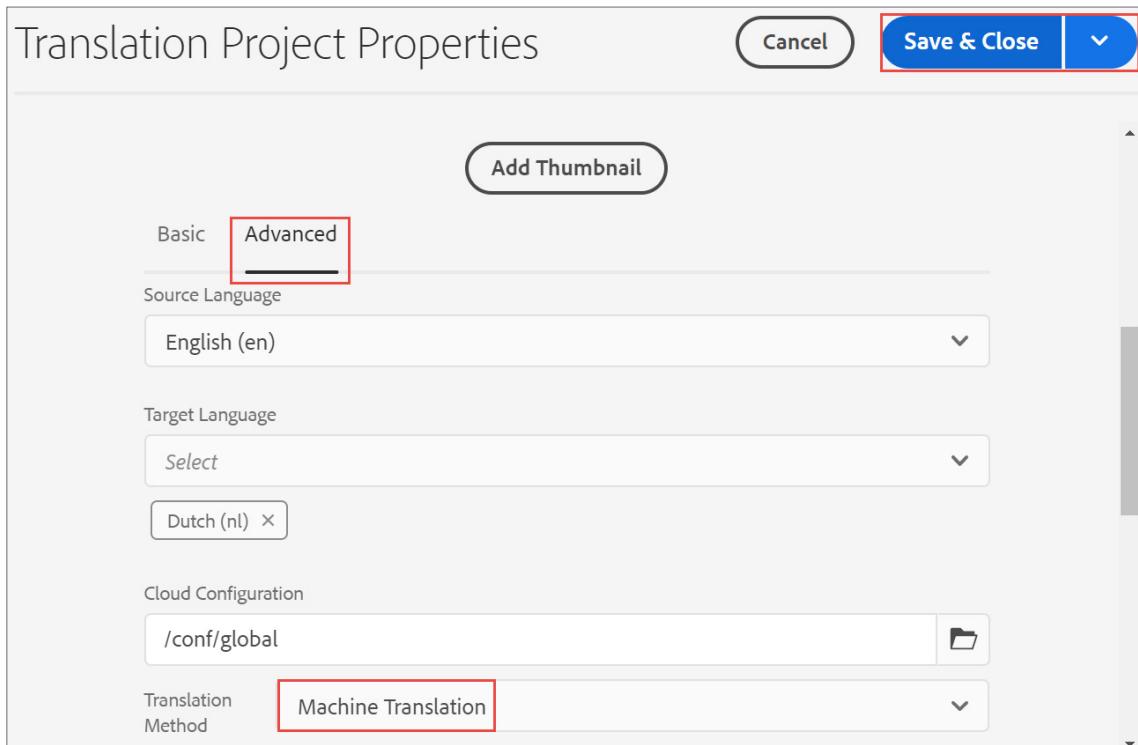


Task 2: Translate the XF

1. Click **Adobe Experience Manager** on the header bar. The **Navigation** panel opens.
2. Click **Projects** to open the console.
3. Click the **Multilingual Asset Translation** folder to open it. Notice a new project, **Multilingual Asset Translation [NL]** is added to the folder.
4. Click the **Multilingual Asset Translation [NL] PROJECT** tile to open the dashboard.
5. On the **Summary** tile, notice that the **Method** is **Human Translation**.
6. On the **Translation Job [NL]** tile, notice that the **Status** is **Draft** because of Human Translation method.

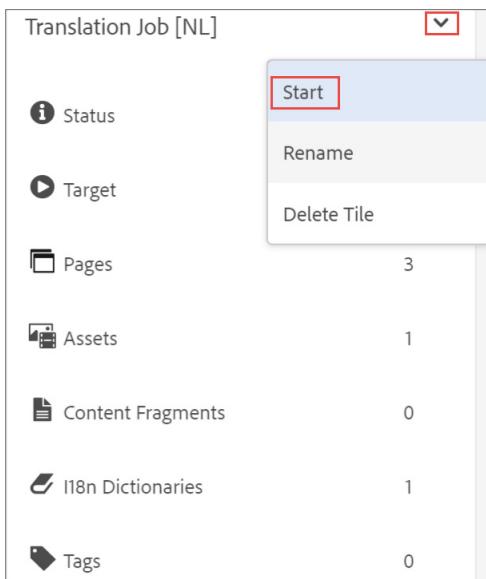
To change the translation method to Machine:

7. Click the ellipsis icon on the **Summary** tile to open the **Translation Project Properties** wizard.
8. Click the **Advanced** tab to open it, select **Machine Translation** from the **Translation Method** drop-down menu and click **Save & Close**, as shown:



The form has been submitted successfully message appears.

9. On the **Translation Job [NL]** tile, click the arrowhead and select **Start** from the drop-down menu, as shown:



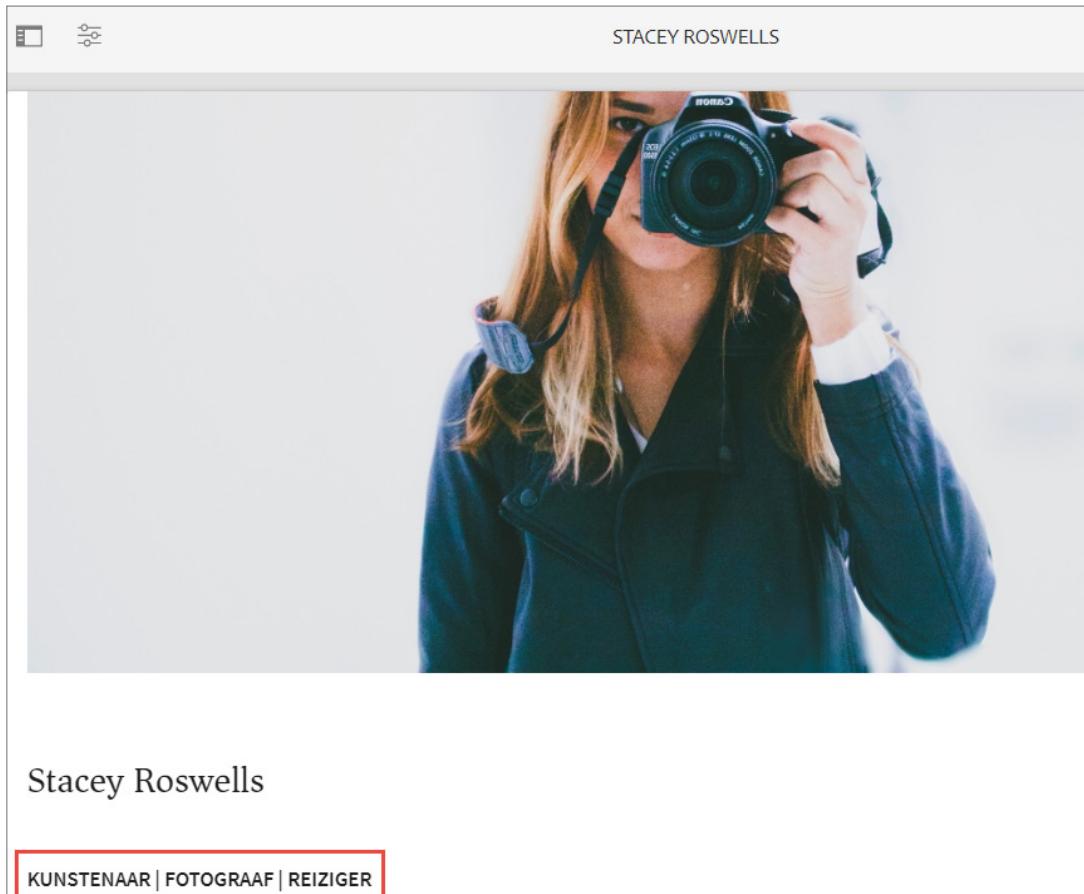
Started translation project message appears and on the **Translation Job [NL]** notice that the **Status** changes to **Translation in progress**.

10. Click the ellipsis icon on the **Translation Job [NL]** tile to open the details page.
11. Select the **Stacey Rosewells** check box and click the **Preview in Sites** on the actions bar, as shown:

SELECT	TITLE	PATH	STATUS	STATE	RESOURCE TYPE
<input checked="" type="checkbox"/>	Stacey Rosewells	/content/experience-fragments/wknd/language-masters/nl/contributors/stacey-rosewells	New	Ready for review	Page
<input type="checkbox"/>	Stacey Rosewells	/content/experience-fragments/wknd/language-masters/nl/contributors/stacey-rosewells/master	New	Ready for review	Page
<input type="checkbox"/>	Byline	/content/experience-fragments/wknd/language-masters/nl/contributors/stacey-rosewells/byline	New	Ready for review	Page

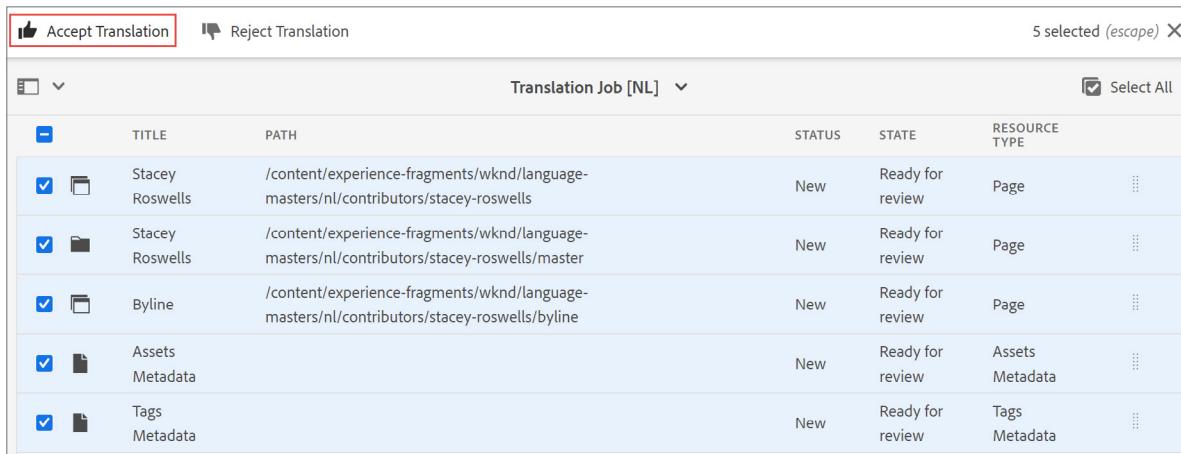
The XF opens on a new tab of the browser.

12. Notice that the XF is translated to Dutch, as shown:



13. Click the **Translation Job [NL]** tab of the browser.

14. In the **Translation Job [NL]** details page, select all check boxes except **Component Strings** and click **Accept Translation** on the actions bar, as shown:



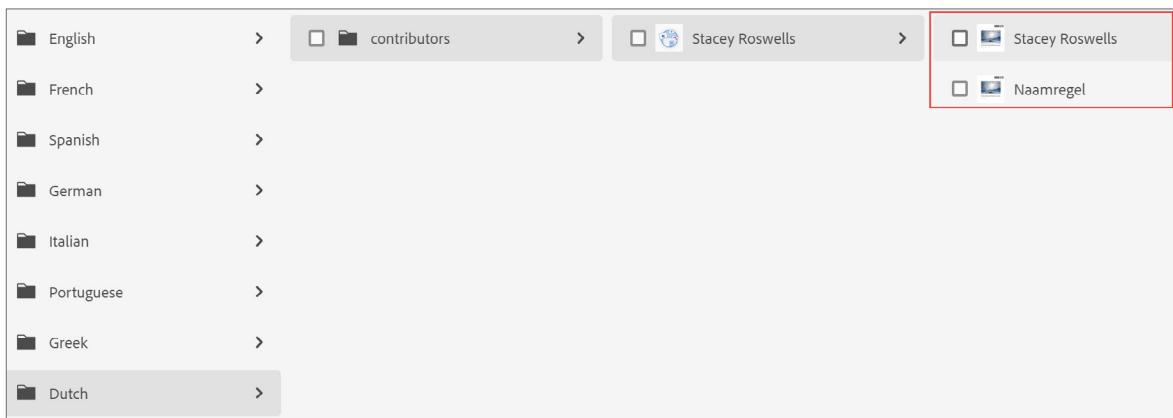
		Translation Job [NL]			Actions	
	TITLE	PATH	STATUS	STATE	RESOURCE TYPE	Select All
<input checked="" type="checkbox"/>	Stacey Roswells	/content/experience-fragments/wknd/language-masters/nl/contributors/stacey-roswells	New	Ready for review	Page	
<input checked="" type="checkbox"/>	Stacey Roswells	/content/experience-fragments/wknd/language-masters/nl/contributors/stacey-roswells/master	New	Ready for review	Page	
<input checked="" type="checkbox"/>	Byline	/content/experience-fragments/wknd/language-masters/nl/contributors/stacey-roswells/byline	New	Ready for review	Page	
<input checked="" type="checkbox"/>	Assets Metadata		New	Ready for review	Assets Metadata	
<input checked="" type="checkbox"/>	Tags Metadata		New	Ready for review	Tags Metadata	

The **Accept Translation** dialog box opens.

15. Click **Accept**. The **Translation accepted** message appears at the bottom of the page.

To view the translated XF in Experience Fragments console:

16. Click the **Stacey Rosewells** tab of the browser.
17. Click the **Page Information** icon on the page toolbar and select **View in Admin** to view the translated XF in the **Experience Fragments** console.
18. Notice that the **Stacey Rosewells** XF and its variation are translated to Dutch, as shown:



Exercise 6: Translate a page containing a CF and an XF

Scenario: As an author, you want to translate a webpage that contains CFs and XFs.

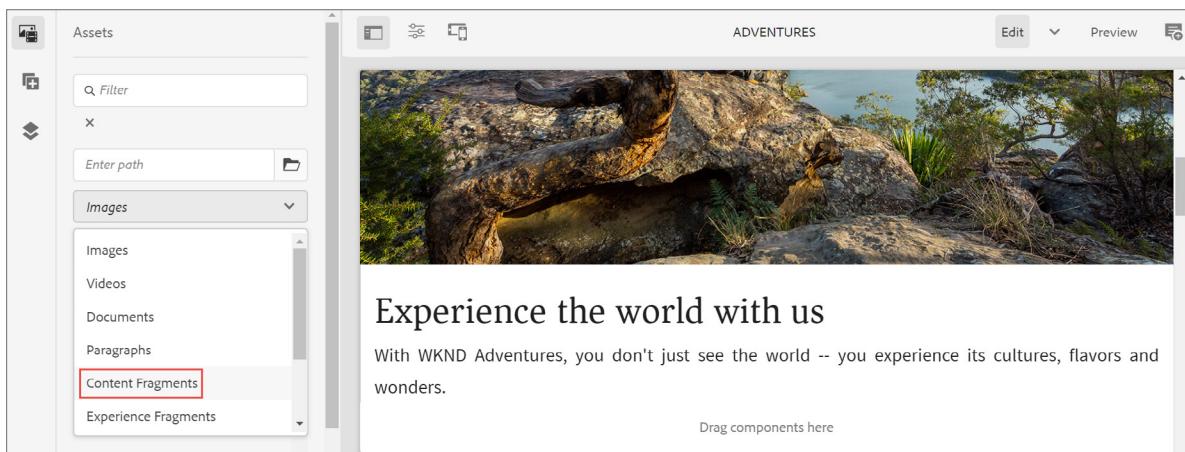
In this exercise, you will first add a CF and an XF to a webpage and then translate the webpage. At the end of the process, you need to verify that the page as well as the embedded CF and XF are translated.

You will perform the following tasks:

1. Add a CF and an XF to a page
2. Translate the page

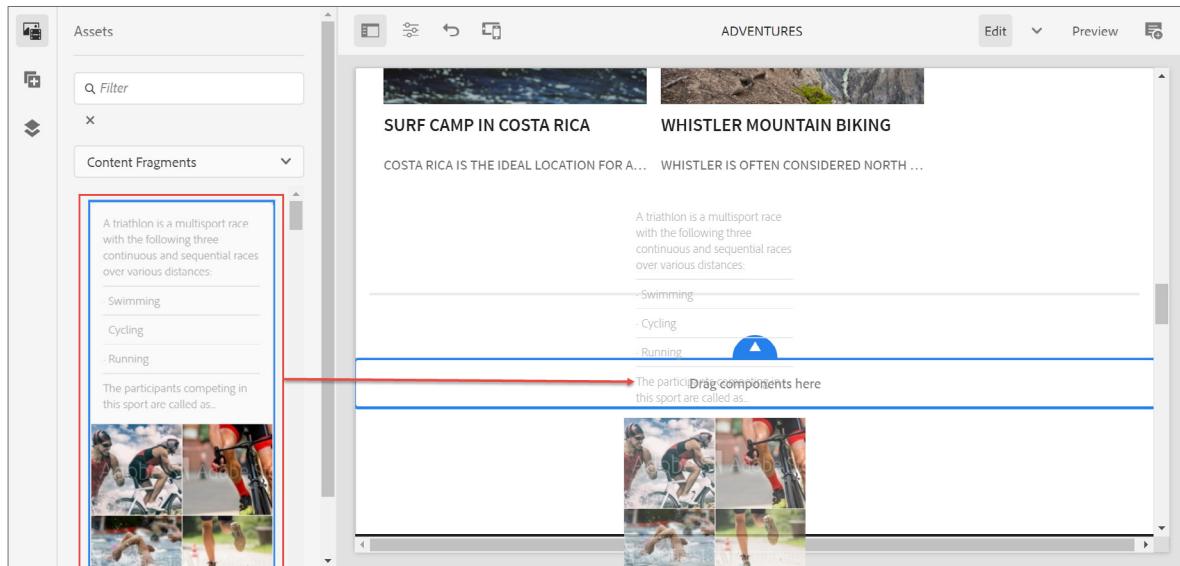
Task 1: Add a CF and an XF to a page

1. Click **Adobe Experience Manager** on the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate to the **WKND Site > Language Masters > English** page, select the **Adventures** page and click **Edit** on the actions bar. The page opens on a new tab of the browser.
4. Scroll down the page and look for the **Drag components here** section.
5. Click the **Toggle Side Panel** icon on the page toolbar. The **Assets** panel opens.
6. From the **Images** drop-down menu, select **Content Fragments**, as shown:



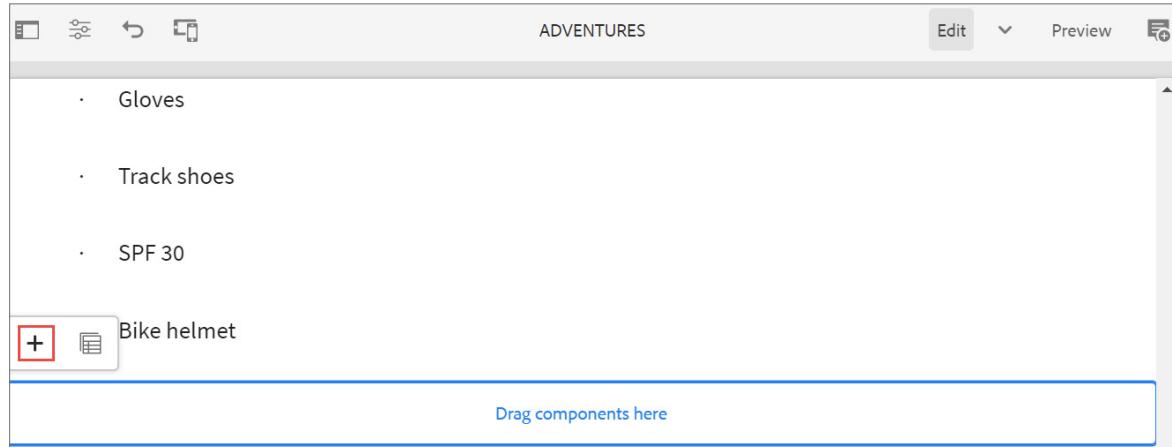
The CFs are displayed in the panel.

7. Drag the **Triathlon_CF** from the panel and drop it onto the **Drag components here** section, as shown:



The CF is added to the page.

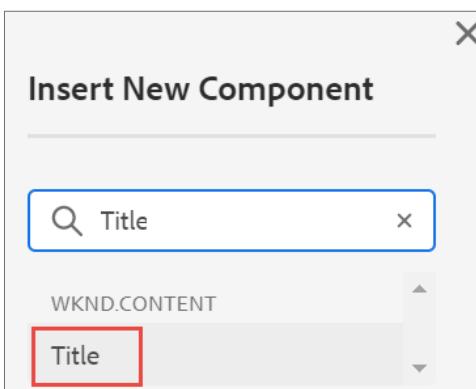
8. Click **Drag components here** section below the CF. The component toolbar appears.
 9. Click the + icon on the component toolbar, as shown:



The **Insert New Component** dialog box opens.

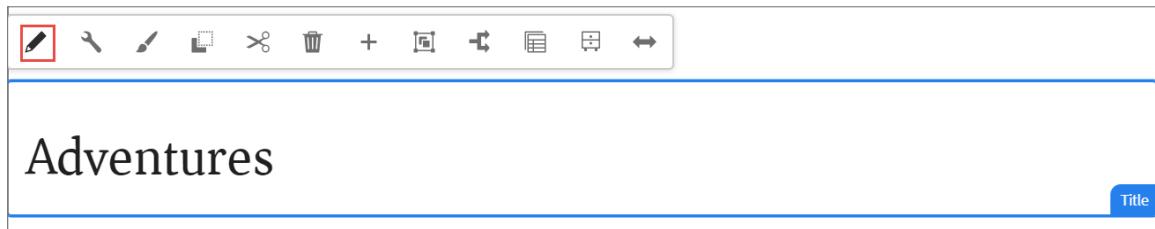
10. Type **Title** in the search box and press **Enter**. The **Title** component appears.

11. Select the **Title** component from the list, as shown:



The component is added to the page.

12. Click the **Title** component. The component toolbar opens.
13. Click the **Edit** icon on the component toolbar, as shown, to edit it:



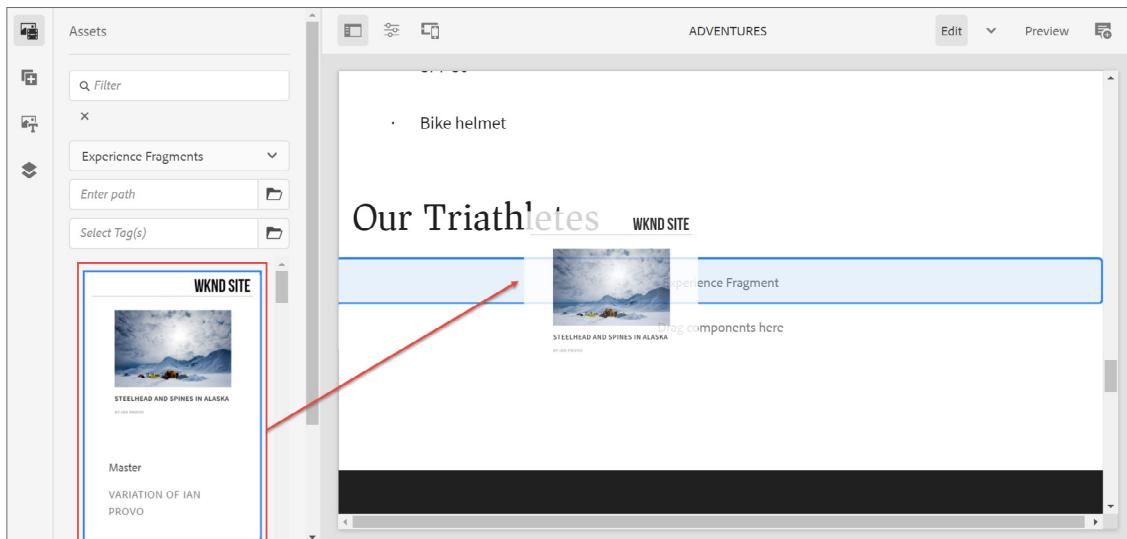
14. Change the text to **Our Triathletes**, as shown:



The component is updated with the new content.

15. Click **Drag components here** below the **Title** component. The component toolbar appears.
16. Click the **+** icon on the component toolbar. The **Insert New Component** dialog box opens.
17. Type **Experience Fragment** in the search box and press **Enter**. The **Experience Fragment** component appears.

18. Select the **Experience Fragment** component from the list. The component is added to the page.
19. Ensure the **Assets** panel is open on the left panel.
20. From the **Content Fragments** drop-down menu, select **Experience Fragments**. The XFs are displayed in the panel.
21. Drag the **VARIATION OF IAN PROVO** XF from the panel and drop it onto the **Experience Fragment** component, as shown:



- The XF is added to page.
22. Perform steps 15–18 and add another **Experience Fragment** component to the page below the first **Experience Fragment** component.
 23. Drag the **VARIATION OF SOFIA SJOBERG** XF from the panel and drop it onto the second **Experience Fragment** component. The XF is added to page.

Task 2: Translate the page

1. Ensure you are in the **Adventures** page.
2. Click the **Page Information** icon the page toolbar and select **View in Admin** from the drop-down menu to view the page in **Sites** console.
3. Navigate through the **WKND Site > Language Masters > English**, and select the **Adventures** page.
4. Click **Create** on the actions bar and select **Language Copy** from the drop-down menu. The **Create Language Copy** wizard opens.
5. In the **Create Language Copy** wizard, select the **Adventures** check box and click **Next**. The **Source** section of the wizard opens.
6. Select **German (de)** from the **Target Language(s)** drop-down menu and click **Next**, as shown:

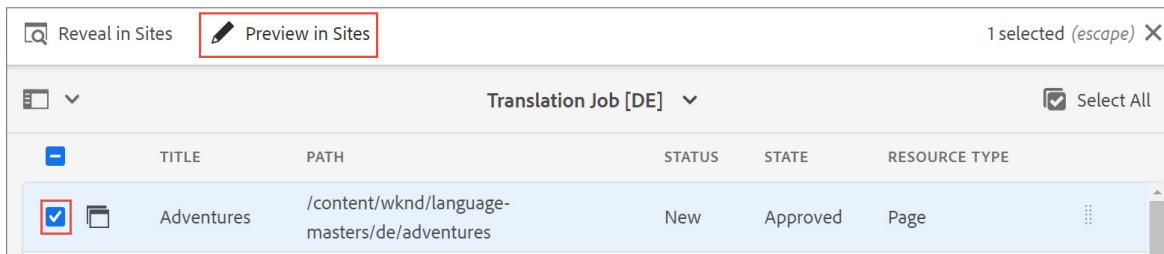


The **Configure** section of the wizard opens.

7. In the **Configure** section of the wizard:
 - a. Select **Create Translation Project(s)** from the **Project** drop-down menu
 - b. Type **CF and XF Translation** in the **Title** box
 - c. Click **Create**. A success message indicating **The language copy(ies) has been created and added to the respective translation project(s)**, appears.
8. Click **Done**. The **Sites** console opens.

To view the translated page and to complete the translation job:

9. Click **Adobe Experience Manager** on the header bar. The **Navigation** panel opens.
10. Click **Projects** to open the console.
11. Click the **CF and XF Translation** folder to open it.
12. Click the **CF and XF Translation[DE] PROJECT** tile to view the dashboard.
13. Click the arrowhead icon in the **Translation Job [DE]** tile and select **Start** from the drop-down menu. **Started translation project** message appears and on the **Translation Job [DE]** notice that the **Status** changes to **Translation in progress**.
14. Click the ellipsis icon on the **Translation Job [DE]** tile to open the details page.
15. Select the **Adventures** check box and click **Preview in Sites** on the actions bar, as shown:



The **Adventures** page opens on a new tab of the browser.

16. Notice that the page content along with the Triathlon_CF and XFs are translated to German, as shown in the screenshots:

The screenshot shows a screenshot of the Adobe Experience Manager (AEM) interface. At the top, there's a toolbar with icons for file operations and a title bar labeled "ABENTEUER". On the right side of the title bar are buttons for "Edit" and "Preview". Below the toolbar, the main content area has a blue header bar containing the text "Wichtigsten". Underneath this, there's a list of bullet points: "Schwimmen", "Radfahren", and "Ausgeführt". A descriptive paragraph follows: "Ein Triathlon ist ein Multisport-Rennen mit den folgenden drei kontinuierlichen und sequentiellen Rennen über verschiedene Distanzen:". Another paragraph describes the participants: "Die Teilnehmer, die in diesem Sport antreten, werden als Triathleten bezeichnet. Die Triathleten kämpfen um den schnellsten Gesamtverlauf, der zeitliche Übergänge zwischen den drei Rennen beinhaltet." A final paragraph explains the transition areas: "Triathlon hat Übergangsbereiche, in denen sich die Triathleten auf verschiedene Segmente des Rennens vorbereiten können. In diesem Bereich wechseln die Triathleten ihren Kurs vom Schwimmen über Radfahren und Radfahren auf Laufen. In diesem Bereich werden die benötigte Ausrüstung, persönliche Kleidung und Zubehör für den Sport gespeichert."

The screenshot shows a screenshot of the Adobe Experience Manager (AEM) interface. The main content area features a large image of a man with a beard and sunglasses. Above the image, the text "Unsere Triathleten" is displayed. Below the image, the name "Ian Provo" is shown, followed by the word "FOTOGRAF". At the bottom of the content area, there are social media sharing icons for Facebook, Twitter, and Instagram. On the far right, a small blue button reads "Experience Fragment".

17. Click the **Page Information** icon on the page toolbar and select **View in Admin** to view the translated page in the **Sites** console.
18. Notice that the **Deutsch** page now has German version of Adventures (**Abenteuer**) along with its subpages, as shown:

The screenshot shows the AEM Sites console interface. At the top, there's a header with the site name "Abenteuer" and various navigation options like "Select All" and "Create". Below the header, the site structure is displayed as a tree. On the left, there are language nodes: English (en), Deutsch (de, which is selected and highlighted in grey), Français (fr), and Italiano (it). The Deutsch node has an arrow pointing to its children, which include "Magazin magazine" and "Abenteuer adventures". The "Abenteuer adventures" node is also highlighted with a red box. An arrow points from this node to its subpages, which are listed on the right side of the screen. These subpages are also enclosed in a red box. The subpages listed are: Skitouren Mont Blanc (ski-touring-mont-blanc), Riverside Camping (riverside-camping-australia), Beervana in Portland (beervana-portland), Surf Camp in Costa Rica (surf-camp-costa-rica), Whistler Mountain Biking (whistler-mountain-biking), Radfahren Toskana (cycling-tuscany), Klettern Neuseeland (climbing-new-zealand), and Abfahrt Ski Wyoming (downhill-skiing-wyoming).

19. Open the **CF and XF Translation [DE] | AEM Projects** tab of the browser, notice that the **Status** on the **Translation Job [DE]** tile is changed to **Approved**.
20. Click the arrowhead in the **Translation Job [DE]** tile and select **Complete** from the drop-down menu. The **Updated Translation Job status to complete** message appears.

References

- [Manage your digital assets](#)
- [Multilingual assets](#)
- [Creating Translation Projects for Content Fragments](#)

Extend and Customize the Translation Capability

Introduction

Many organizations add custom content to their websites through the custom components. To make the custom content available to the global audience, you can use the translation workflow of Adobe Experience Manager (AEM), which helps include the additional content types of custom components for translation.

Objectives

After completing this module, you will be able to:

- Explain translation rules
- Translate the custom property of a component

Translation Rules

Translation rules identify the content of pages, Experience Fragments (XF), forms, and assets to be translated. When content resources, such as a page or an asset, are translated, AEM reads the identified property values of the content resources and sends them to the translation workflow.

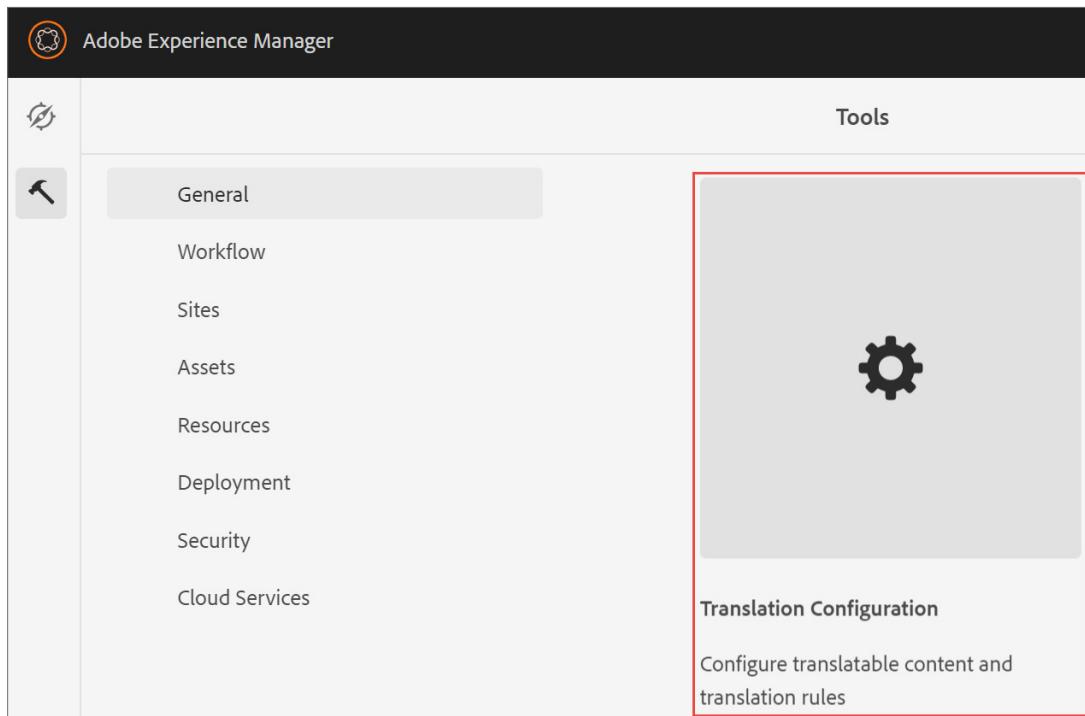
The translation rules include the following information:

- The path of the node to which the rule applies. The rule is applicable to the child node.
- The names of the node properties that contain the content to translate. The property can be specific to a specific resource type or to all resource types.

A translation rule states that a property value of a content resource will be translated after you initiate a translation process on the resource. The content resources below the parent content hierarchy inherit the translation rule, except when another translation rule is specifically set for the child content resource.

You can configure translation rules to apply them to a specific content context by stating in which content path the rules apply. In addition, you can make translation rules specific to different resource types.

You can configure the translation rules from **Tools > General > Translation Configuration**, as shown:



The **Translation Configuration** console helps add paths also known as the content context. You can edit the rules associated with the content context by using **Translation Rules Editor**.

In **Translation Rules Editor**, each context has the following tabs:

- **Properties:** Contains properties that are translated for any component. Initially, all rules for the properties of the core components are defined.
- **Filters:** Contains the paths to properties that should not be translated
- **References:** Contains the property names of references for the referenced content types, such as assets, XFs, or forms that need to be translated

The **Translation Rules Editor** helps add new content types by adding components. Each property of the content type is defined by attributes. The following table describes these attributes:

Attributes	Description
Is Deep	<p>Is applicable on content context and is true by default. It checks whether the content resource or its ancestors contain the property with the specified value in the filter. If this attribute is false, it only checks at the current resource. For example, child resources are added to a translation job even when the parent is having property draftOnly set to true to flag draft content. The Is Deep attribute checks if the parent nodes have property draftOnly as true and excludes those child nodes.</p> <p>You can access the Is Deep attribute from the Filters tab.</p>
Inherit	<p>Is applicable on properties. By default, each property is inherited. If you do not want a property to be inherited, set the property value to false.</p> <p>You can access the Inherit attribute from the Properties tab.</p>
Translate	<p>Is used to specify whether to translate the property</p> <p>You can access the Translate attribute from the Properties tab.</p>
Update Destination Language	<p>Is used for properties that do not have text but language property, such as jcr:language. The property content is not translated, but the language locale is updated from the source to destination. Locale properties are not sent for translation.</p> <p>You can access the Update Destination Language attribute from the Properties tab.</p>

Exercise 1: Translate the custom property of a component

Scenario: As a power user, you want to translate custom content type into different languages. The default translation workflow is not configured to translate the custom content type that stores the content.

You need to create a translation rule to include the custom content in the translation process.

In this exercise, you will perform the following tasks:

1. Add a custom component to a page
2. Create a translation rule
3. Create a translation project
4. Start the translation

Task 1: Add a custom component to a page

 **Note:** This training uses AEM as a Cloud Service environment, which means all custom code is installed through the CI/CD pipeline. The custom component used in this task is already added to your author service through this process.

Before you can add a custom component to a page, you need to edit the template and add the component to the allowed components of a Layout Container.

To edit the template and add a custom component:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.

3. Navigate to the WKND Site > Language Masters > English > Adventures, select the **Cycling Tuscany** page and click **Edit (e)** on the actions bar, as shown:

The screenshot shows the AEM navigation tree. At the top, there are standard toolbar icons: Create, Edit (e), Properties (p), Lock, Copy (ctrl+c), Move (m), Quick Publish, and a three-dot menu. To the right, it says "1 selected (escape) X". Below the toolbar, the navigation path is "Adventures >". The tree structure is as follows:

- Language Masters (language-masters)
 - United States (us)
 - Canada (ca)
 - Switzerland (ch)
 - Germany (de)
 - France (fr)
 - English (en)
 - Deutsch (de)
 - Français (fr)
 - Italiano (it)
 - Greek (home)
 - Portuguese (pt)
 - Adventures
 - Error Handler Pages (errors)
 - Magazine (magazine)
 - Adventures (adventures)
 - FAQs (faqs)
 - About Us (about-us)
 - Ski Touring Mont Blanc (ski-touring-mont-blanc)
 - Riverside Camping (riverside-camping-australia)
 - Beervana in Portland (beervana-portland)
 - Surf Camp in Costa Rica (surf-camp-costa-rica)
 - Whistler Mountain Biking (whistler-mountain-biking)
 - Cycling Tuscany (cycling-tuscany)

The page opens on a new tab of the browser.

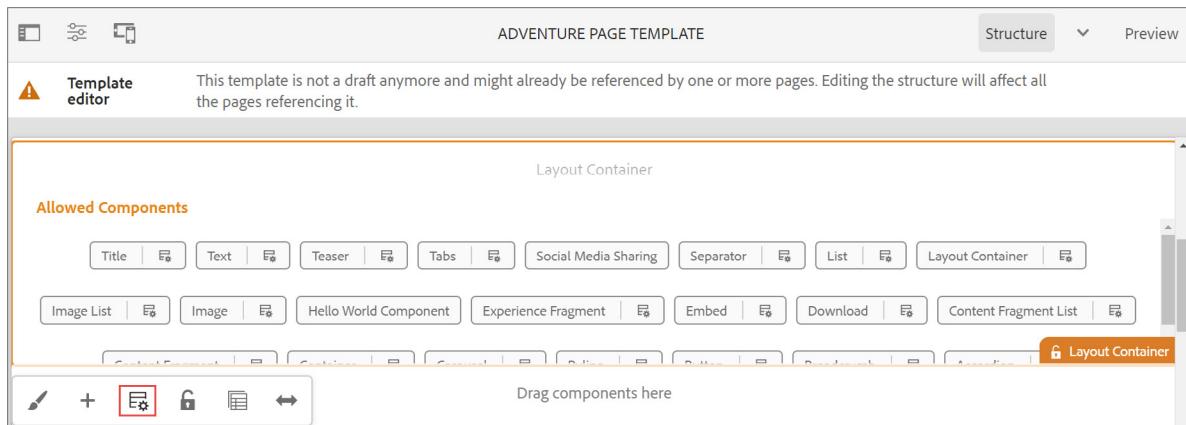
4. Click the **Page Information** icon from the page toolbar and select **Edit Template** from the drop-down menu, as shown:

The screenshot shows the "Page Information" dropdown menu. The menu items are:

- Modified 6 months ago by Administrator
- Page is not published
- Open Properties
- Rollout Page
- Start Workflow
- Lock Page
- Publish Page
- Unpublish Page
- Edit Template** (highlighted with a red box)
- View as Published
- View in Admin
- Help

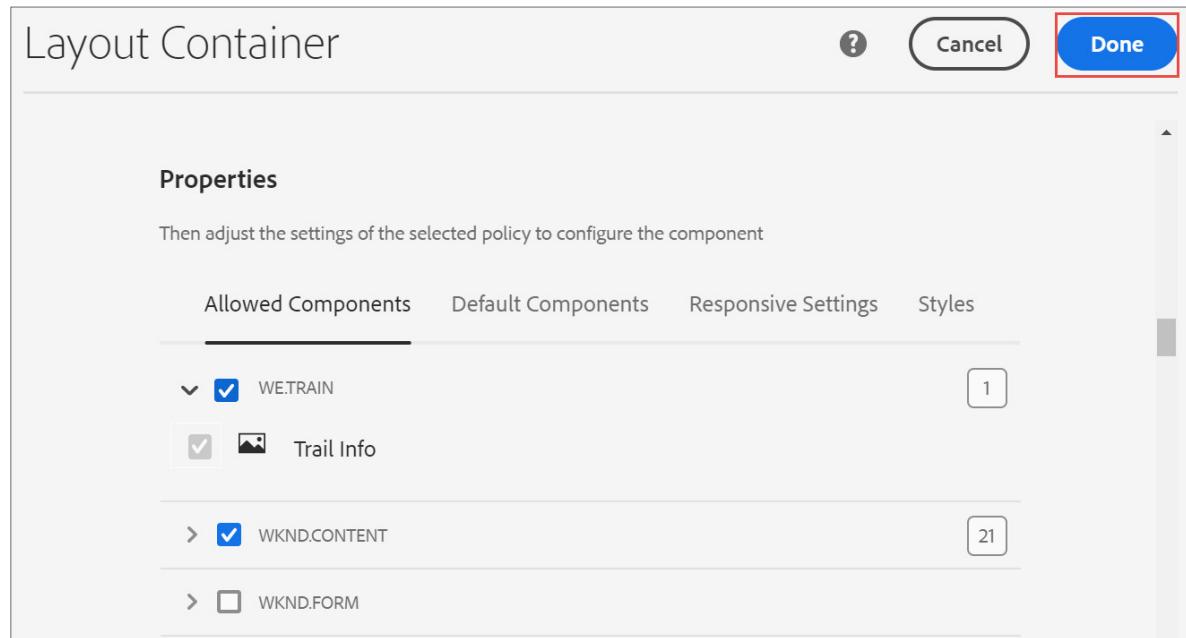
The template opens on a new browser tab.

5. Scroll down, select the **Layout Container** component and then click the **Policy** icon from the component toolbar, as shown:

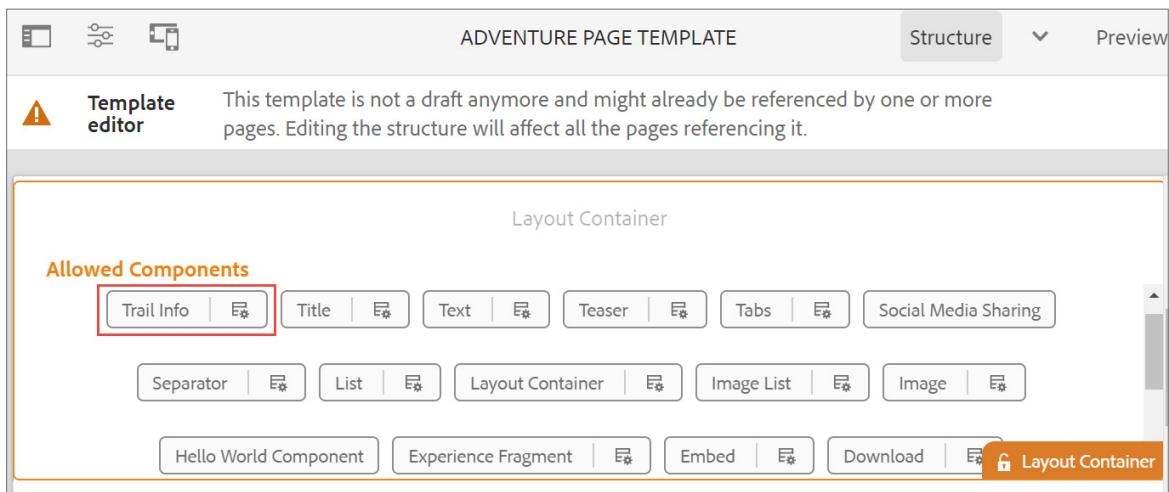


The **Layout Container** wizard opens.

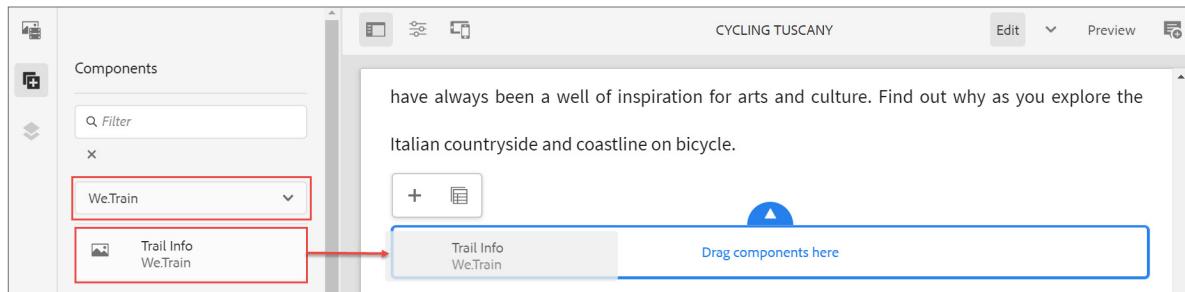
6. In the **Properties** section, on the **Allowed Components** tab, expand **General**, scroll down the page, select the **WE.TRAIN** group with the **Trail Info** component and click **Done**, as shown:



7. Notice that the **Trail Info** component is added to the **Layout Container**, as shown:

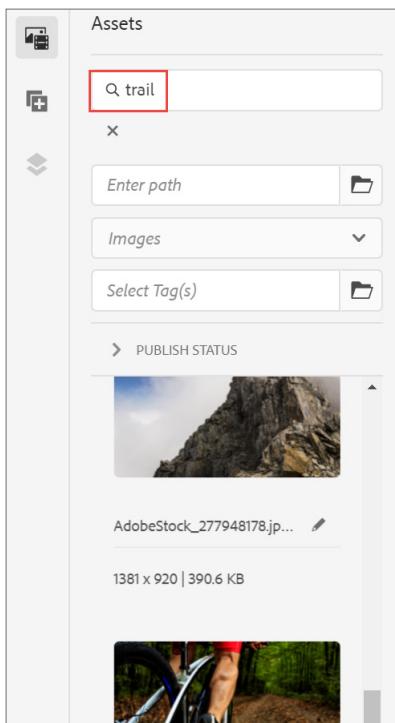


8. Open the tab of the browser where the **Cycling Tuscany** page is open.
9. Refresh the page.
10. Click the **Toggle Side Panel** icon on the page toolbar. The panel opens.
11. Click the **Components** icon. The components available for the page appear in the panel.
12. Look for the **Trail Info** component in the panel.
13. Drag the **Trail Info** component from the panel onto the **Drag components here** section on the page, as shown:

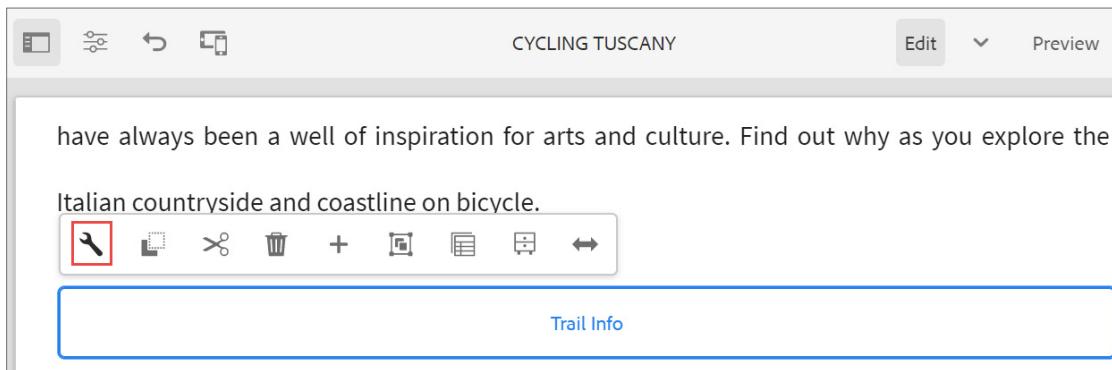


The component is added to the page.

14. Click the **Assets** icon on the left panel, type **trail** in the **Filter** box and press Enter. The different images related to the keyword appear in the panel, as shown:

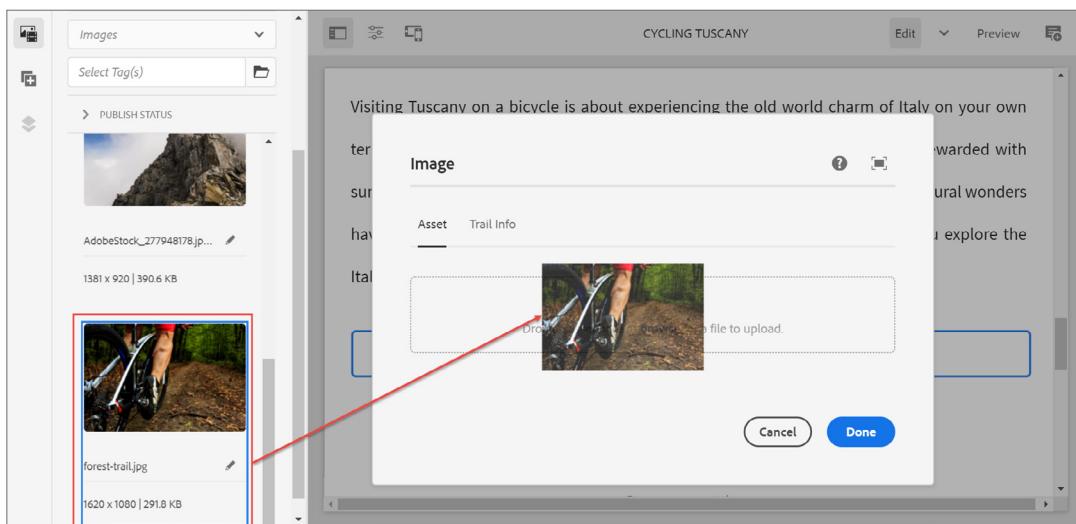


15. Select the **Trail Info** component on the page and click the **Configure** icon (wrench) on the component toolbar, as shown:



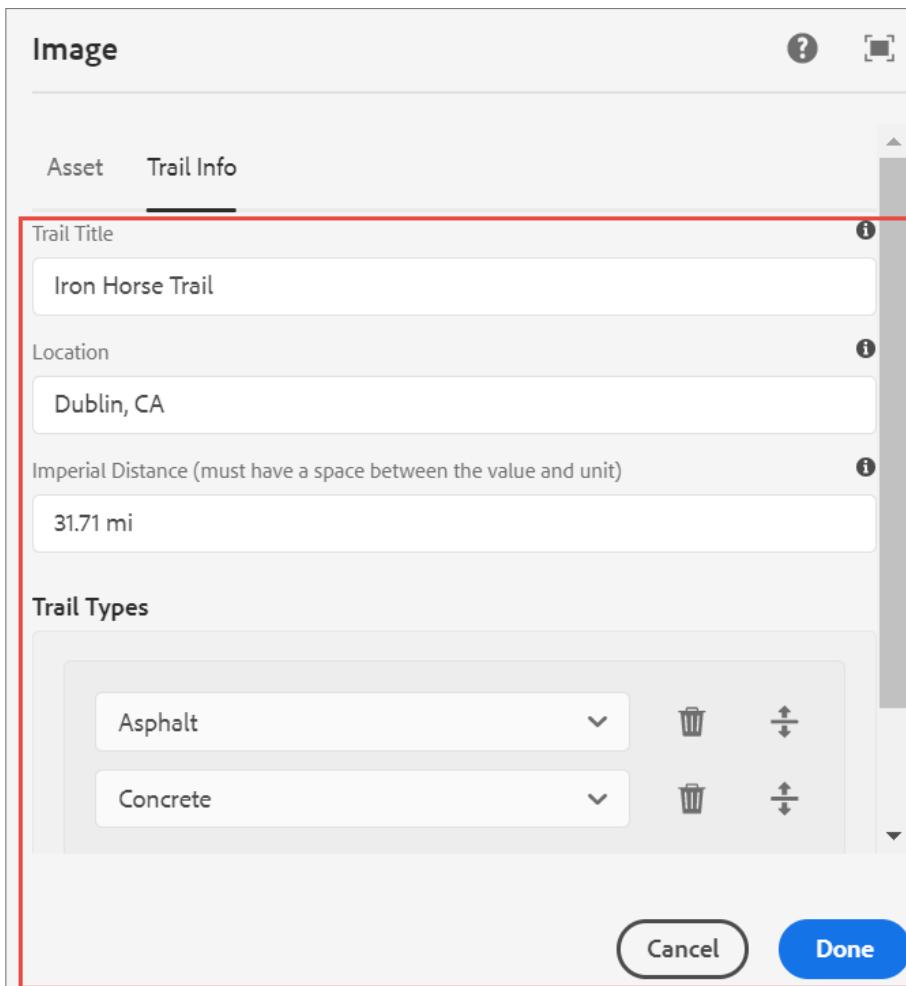
The **Trail Info** dialog box with the **Asset** tab opens.

16. Drag any trail image from the **Assets** panel onto the placeholder in the dialog box, as shown:



The image is added to the dialog box.

17. In the dialog box, click the **Trail Info** tab and perform the following, as shown:
- In the **Trail Title** field, type **Iron Horse Trail**.
 - In the **Location** field, type **Dublin, CA**.
 - In the **Imperial Distance** field, type **31.77 mi**.
 - In the **Trail Types** section:
 - Click **Add** and select **Asphalt** from the drop-down menu.
 - Click **Add** and select **Concrete** from the drop-down menu.
 - Click **Done**.



The details are added to the **Trail Info** component on the page.

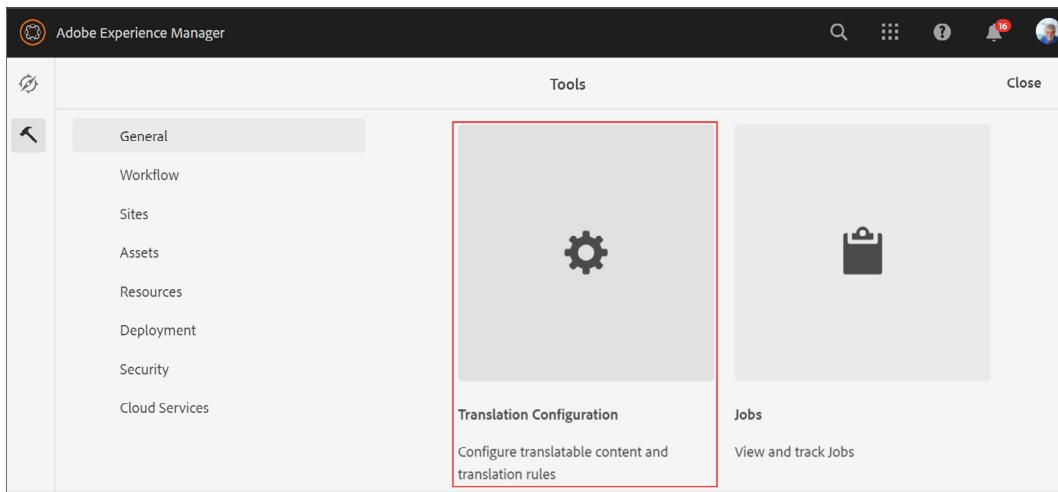


Note: If you are unable to see the Concrete option on the drop-down menu, press the down arrow key on your keyboard until you see the option.

-
- Open the tab of the browser where the **Adventures > Cycling** page is selected.
 - Click **1 selected x** at the top-right corner of the actions bar to clear the selected **Cycling** page.

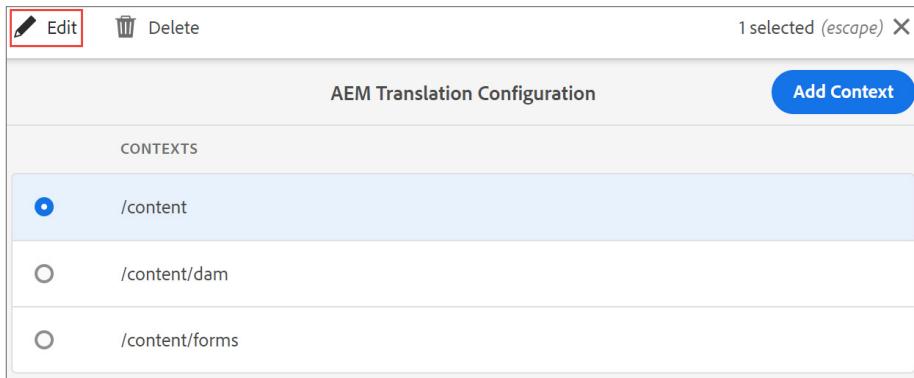
Task 2: Create a translation rule

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click the **Tools** icon. The page opens.
3. Click **Translation Configuration**, as shown, to open the console:



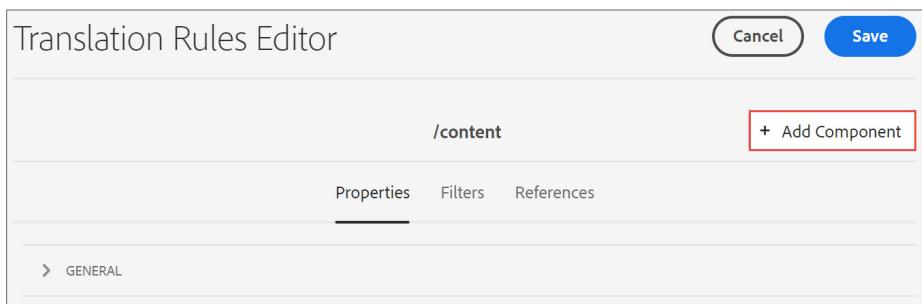
The **AEM Translation Configuration** page opens.

4. Select **/content** and click **Edit** from the actions bar, as shown:



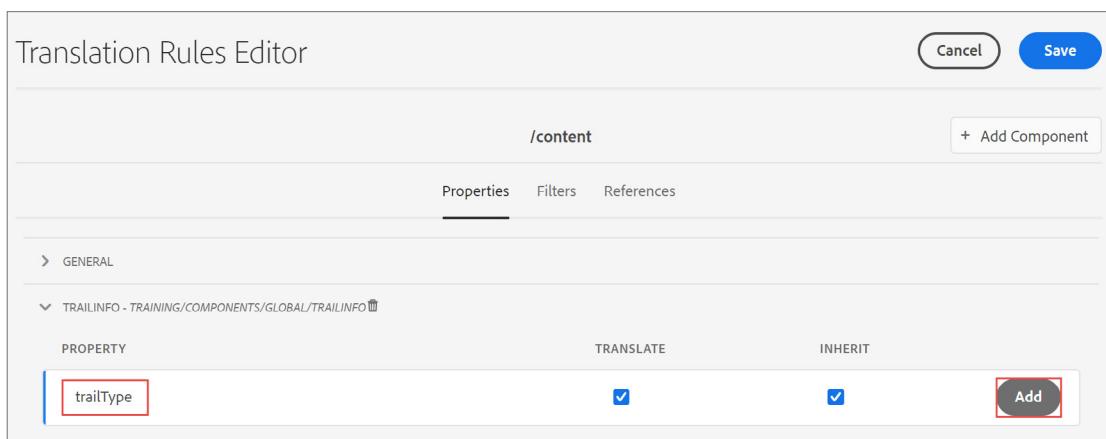
The **Translation Rules Editor** page opens.

- In the **Properties** tab, click **+ Add Component** on the actions bar, as shown:



The **Add New Component** dialog box opens.

- Type **training/components/global/trailinfo** in the **Component Path** field and click **Add**. The trailinfo component path is added to the **Properties** tab below the **General** group.
- Click the **trailinfo - training/components/global/trailinfo** group. The **Property** section appears.
- Perform the following actions in the **Property** section, as shown:
 - In the **New Property** box, type **trailType**.
 - Ensure the **TRANSLATE** and **INHERIT** check boxes are selected.
 - Click **Add**.



The property is added to the trailinfo group.

- Click **Save**. The **AEM Translation Configuration** opens. The new translation rule is created.



Note: You will not add other properties of the trailinfo component such as `jcr:title`, `distance`, and `location` in the translation rule. The `jcr:title` is a standard property of the General group, `distance` is a unit of measure, and `location` is a place.

Task 3: Create a translation project

1. Click **Adobe Experience Manager** from header bar.
2. Navigate to the **Sites > WKND Site > Language Masters > English > Adventures** page.
3. Select the **Cycling Tuscany** page, click the rail selector icon and select **References** from the drop-down menu. The **References** panel opens.
4. Click **Language Copies (7)**. The **Language Copies** panel opens.
5. Click **CREATE & TRANSLATE** from bottom of the panel. The **CREATE & TRANSLATE** section expands in the panel.
6. Perform the following actions, as shown:
 - a. Select **Spanish** language from the **Languages** drop-down menu.
 - b. Ensure **Create Translation Project(s)** is selected from the **Project** drop-down menu.
 - c. Type **TrailInfo Translation** in the **Title** field.
 - d. Click **Create**.

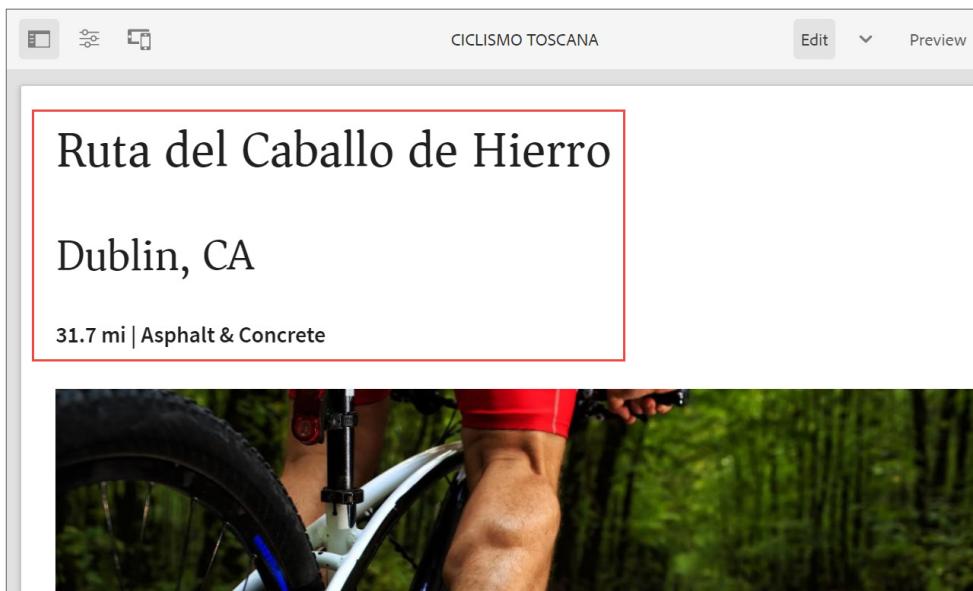
The screenshot shows the 'CREATE & TRANSLATE' panel. The 'Languages*' section is highlighted with a red box. It contains a dropdown labeled 'Select languages' with 'Spanish' selected, and a checkbox labeled 'Select all sub-pages' which is checked. The 'Project*' section contains a dropdown labeled 'Create Translation Project(s)', a 'Project Master' dropdown with 'Select Project Master', and a 'Title*' input field containing 'TrailInfo Translation'. A large 'Create' button is at the bottom of the panel.

The Spanish project for the page is created and appears in the **Language Copies** panel.

7. Click **Cycling Tuscany [ES]** in the panel and then click **Go to Projects** to open the **Trailinfo Translation [ES]** project.

Task 4: Start the translation

1. Ensure you are in the **TrailInfo Translation [ES]** project dashboard.
2. In the **Translation Job [ES]** tile, notice that the **Status** is **Approved**.
3. In the **Summary** tile, notice that the **Translation Method** is **Machine Translation**.
4. Click the ellipsis icon in the **Translation Job [ES]** tile. The **Translation Job [ES]** details page opens.
5. Select the **Cycling Tuscany** page and click **Preview in Sites** on the actions bar. The page opens on a new tab of the browser.
6. Observe that the **Trail Info** component content is translated to Spanish and the translation rule that you created in Task 2 has translated the trail types, as shown:



7. Click the **Translation Job [ES]** details page tab of the browser.
8. Click **Translation Job [ES]** from the breadcrumb and select **TrailInfo Translation [ES]** from the drop-down menu to open the dashboard.
9. In the **Translation Job [ES]** tile, click the arrow head and select **Complete** from the drop-down menu. The **Updated Translation Job status to Complete** message appears.

References

- [Identifying Content to Translate](#)

Work with Multi Site Manager

Introduction

Multi Site Manager (MSM) helps scale and automate the operations when you have many websites that share the same content. MSM is a tool set that consists of live copies, blueprint configurations, and rollout configurations. Each of these tools help you overcome an impending capability bottleneck that arises when you start creating multiple copies of the websites.

Objectives

After completing this module, you will be able to:

- Explain the key terminologies of MSM
- Explain the MSM user interface elements
- Create live copies
- Add local content to a live copy
- Update content on a blueprint page with several live copies
- Explain the types of live copies
- Synchronize a live copy with the blueprint
- Explain rollout configurations
- Roll out changes to live copies automatically
- Explain the implementation guidelines and the best practices of MSM

MSM Terminologies

The following table describes MSM terms:

| Term | Description |
|-------------------------|--|
| Source | Is the original content. |
| Live Copy | Is the copy (of the source) maintained by a live relationship between the blueprint and the content copy. |
| Live Copy Configuration | Defines the synchronization details for a live copy. |
| Live Relationship | Defines the inheritance between the source and live copies. |
| Blueprint | Is a synonym of source content. |
| Blueprint Configuration | Provides a set of capabilities that can be added to a website to help scale content rollout to many live copies and clone the website. |
| Synchronization | Is a generic term for the synchronization of content between the source and live copies and specifically when the synchronization process is initiated on a live copy page. |
| Rollout | Is synonymous to synchronization except that it indicates that the sync action is initiated on a source/blueprint page. |
| Rollout Configuration | Defines the conditions when MSM or Web Content Management (WCM) related actions, such as synchronizing page content or publishing pages, are triggered automatically. |
| Inheritance | Is a live copy relationship that links the content between two pages, where the blueprint or source page determines the content of both. |
| Suspend inheritance | Suspends the live synchronization between a live copy and its blueprint page. |
| Detach inheritance | Removes the live relationship between a live copy and its blueprint page permanently. |
| Reset | Removes all inheritance cancellations and returns the page to the same state as the source page. The reset includes any changes that you have made to the page properties, the paragraph system, and the components. |
| Shallow copy | Is a copy of a page and its immediate child pages. |
| Deep copy | Is a copy of a page together with its child pages in the content hierarchy. |

With MSM, you can create and update the source content in one location and update copies of it in many locations by synchronizing the changes.

MSM maintains a relationship between the source content and its live copies so that when you make changes to the source content, the source and live copies can be synchronized, and changes to the source can be copied to its live copies. After you create the live copy relationship between a source page and a live copy, you can suspend the content inheritance temporarily or cancel the content inheritance permanently.

MSM User Interface

You can access MSM functions and perform different actions on the websites from the **Sites** and **Tools** consoles.

From the **Sites** console, you can:

- Create one or many live copies that can synchronize with content changes based on your source site
- Define triggers to automatically synchronize the changes between the source and the live copy by using rollout configurations
- View information about live copies from the **References** panel
- View and manage source pages and their live copies from the **Live Copy Overview** console

The **Tools** console includes a **Blueprints** console that helps create and manage the blueprint configurations.

Live Copies

An MSM live copy is a copy of a specific site content for which a live relationship with the original source is maintained. The live copy saves a reference to the source content. You can synchronize the updates to the source content with the content copies.

The live copy:

- Inherits the content from its source
- Can be considered as either:
 - Shallow: A single page
 - Deep: The page, together with its child pages

Live Copy: Use Cases

The possible use cases for live copies include:

- Multinationals - Global to local company
- National - Head office to regional branches
- Multiple versions

Multinationals - Global to Local Company

You can use MSM to reuse content in several multinational same-language sites. This helps you to reuse large part of the content to maintain national variations. For example, the English section of a site can be created for the customers in the United States.

The majority of the content remains the same in all sites, while regional localization adjustments are often made.

You can use the following structure for sites for the United States, the United Kingdom, Canada, and Australia:

```
/content
| - language-masters
  | - en
| - us
  | - en
| - gb
  | - en
| - ca
  | - en
| - au
  | - en
```

National - Head Office to Regional Branches

You can use MSM for a company with a network of dealers that wants separate websites for their individual dealerships—each being a variation of the main site provided by the head office. This can be for a single company with multiple regional offices or a national franchise system comprised of a central franchisor and multiple local franchises.

The head office can supply the core information, whereas the regional entities can add local information, such as contact details, opening hours, and events.

The following site structure can be used for an organization with a head office in Berlin and branch offices in Hamburg, Stuttgart, and Munich:

```
/content
| - head-office-Berlin
| - branch-Hamburg
| - branch-Stuttgart
| - branch-Munich
| - branch-Frankfurt
```

Multiple Versions

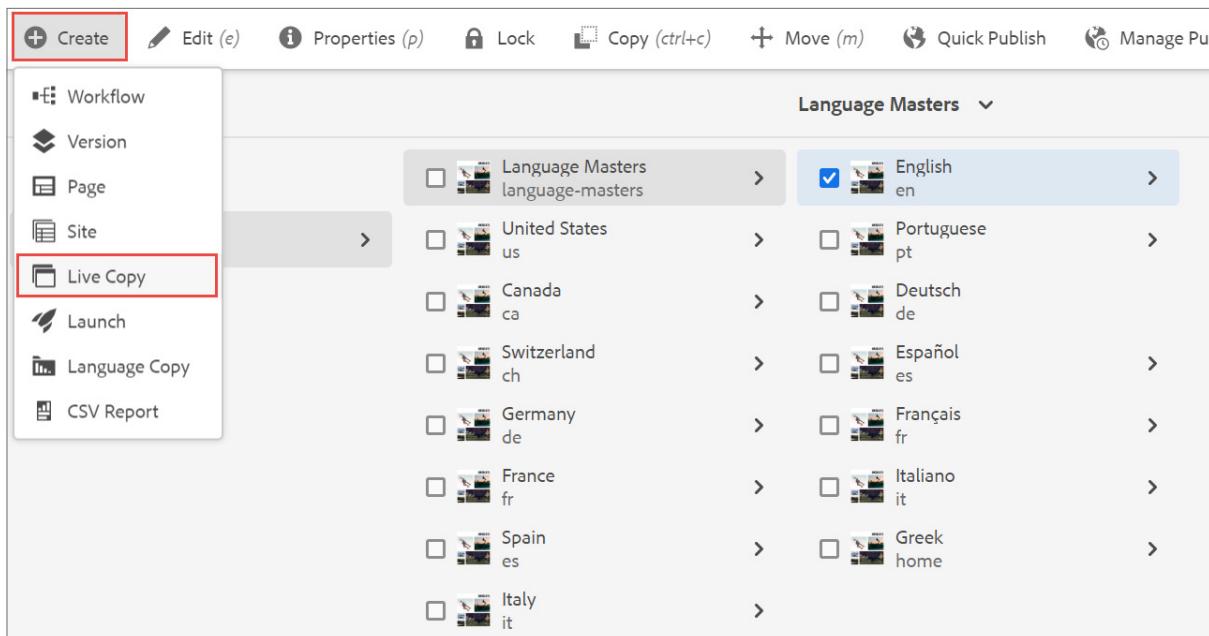
You can use MSM to create versions of a specific sub-branch. For example, you can use MSM for a support subsite holding the details of different versions of a specific product, where the base information remains constant and only the updated features need to be changed.

The following structure supports product X along with its different versions v1 through v5:

```
/content
  |- support
    |- product X
      |- v5.0
      |- v4.0
      |- v3.0
      |- v2.0
      |- v1.0
```

Create Live Copies

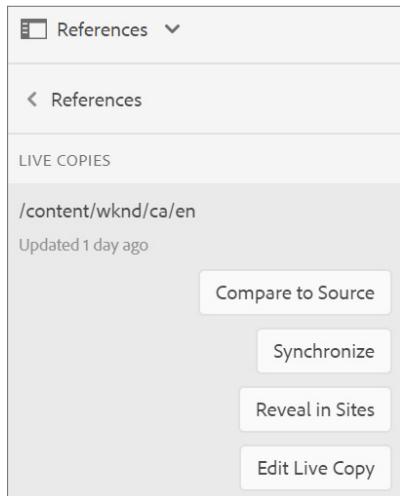
You can create a live copy from a page or blueprint configuration by using **Create > Live Copy** from the actions bar, as shown:



When creating the live copies, you need to define the source and destination.

The **References** panel provides access to live copy-related functions. The source content is referred as blueprint and it is the same as original content or source content. The following screenshot displays options to work with live copies from the References panel, as shown:

- **Compare to Source:** Helps compare the source content with this live copy
- **Synchronize:** Helps synchronize the live copy with the blueprint
- **Reveal in Sites:** Helps view the live copy in the **Sites** console
- **Edit Live Copy:** Helps open or edit the live copy in the authoring UI



Exercise 1: Create a live copy

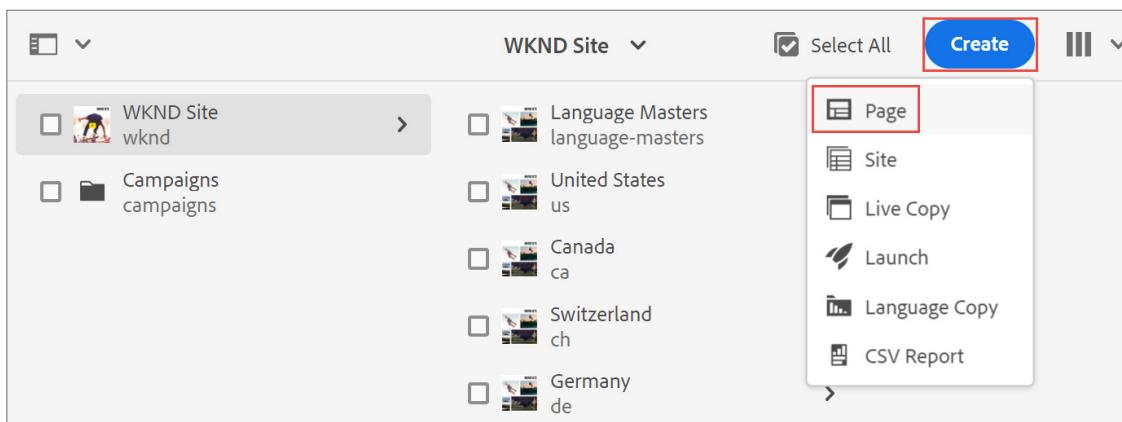
Scenario: A power user wants to create a new website for a country that shares the language with an already existing website.

In this exercise, you will perform the following tasks:

1. Create a new country site
2. Create a live copy of a language master

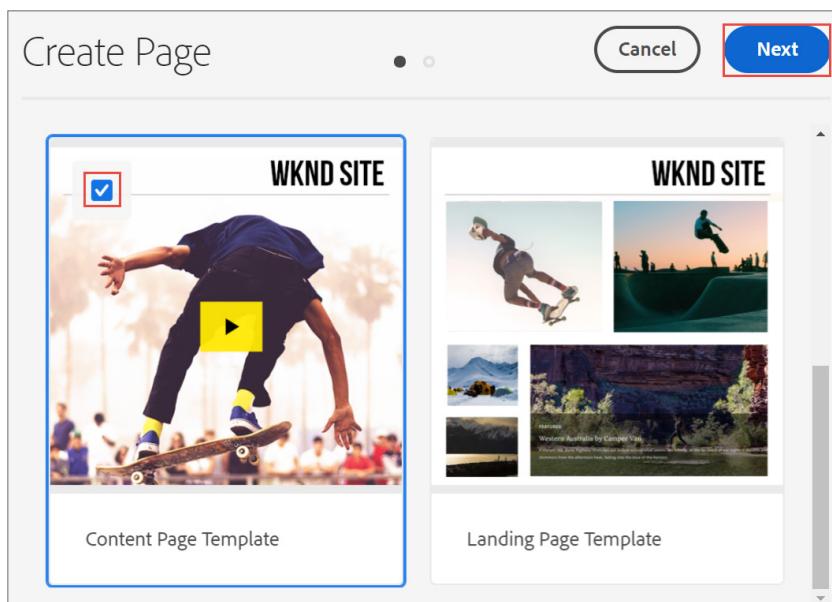
Task 1: Create a new country site

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Click the **WKND** site, click **Create** on the actions bar and select **Page** from the drop-down menu, as shown:



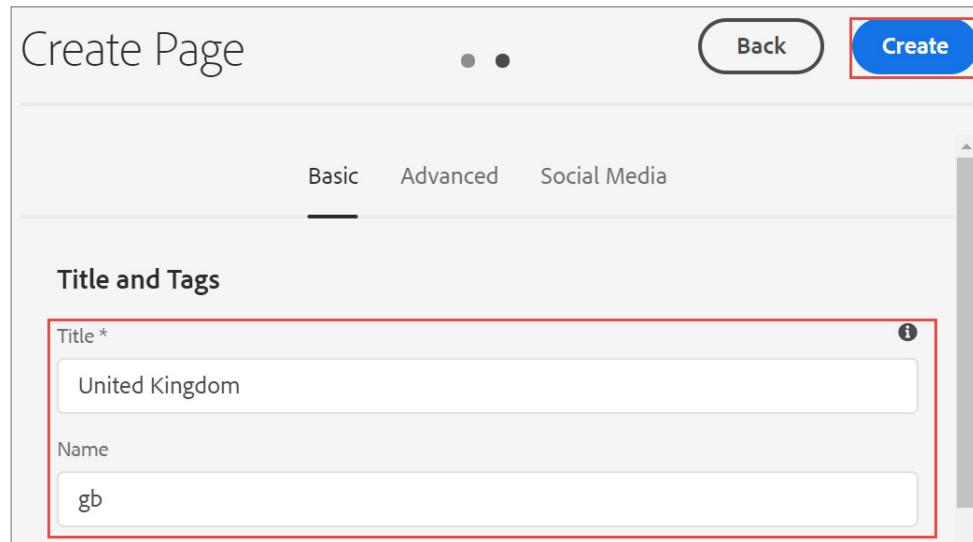
The **Create Page** wizard opens.

4. In the **Template** section, select the **Content Page Template** and click **Next**, as shown:



The **Properties** section of the wizard opens.

5. In the **Properties** section, type **United Kingdom** in the **Title** box and **gb** in the **Name** box and click **Create**, as shown:



The **Success** dialog box opens.

6. Click **Done**. The **Sites** console opens.

Task 2: Create a live copy of a language master

1. In the **Sites** console, navigate through **WKND Site > Language Masters** and select the **English** page.
2. Click **Create** on the actions bar and select **Live Copy** from the drop-down menu, as shown:

The screenshot shows the AEM Sites console with the 'Language Masters' list. The 'English' language master (en) is selected, indicated by a checked checkbox. Other items in the list include 'Deutsch' (de), 'Español' (es), 'Français' (fr), and 'Italiano' (it). On the left, a sidebar menu is open, and the 'Live Copy' option is highlighted with a red box.

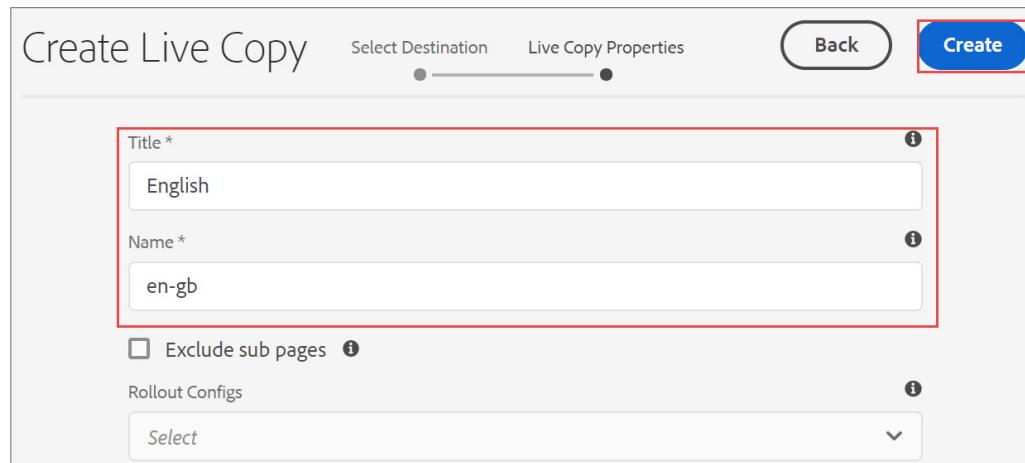
The **Create Live Copy** wizard opens.

3. In the **Select Destination** section of the wizard:
 - a. Click **WKND Site**, select the **United Kingdom** page and click **Next**, as shown:

The screenshot shows the 'Create Live Copy' wizard with the 'Select Destination' step selected. The 'United Kingdom' destination is highlighted with a red box. The 'Next' button is also highlighted with a red box. The list of destinations includes 'Canada', 'Switzerland', 'Germany', 'France', 'Spain', and 'Italy'.

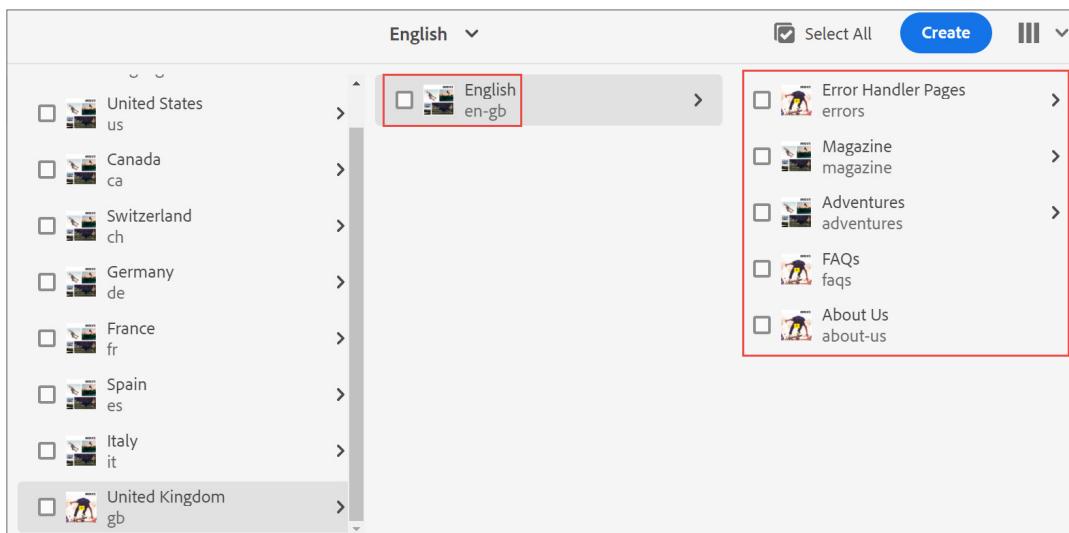
b. In the **Live Copy Properties** section of the wizard:

- Type **English** in the **Title** box and **en-gb** in the **Name** box.
- Click **Create**, as shown:



The **Live Copy Created** dialog box opens.

- Click **Done**. The **Sites** console opens.
- Navigate through the **WKND Site > United Kingdom > English**. Notice that it has the same structure as **WKND Site > Language Masters > English**, as shown:



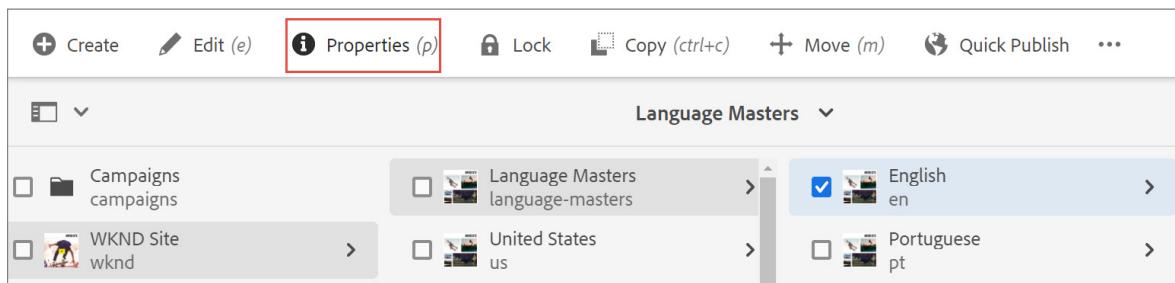
Exercise 2: Examine the properties of a blueprint and a live copy

Scenario: As an author, you need to know the status of blueprints and live copies.

You need to access the page properties to find the information.

To view the properties of a blueprint:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate through **WKND Site > Language Masters**, select the **English** page and click **Properties (p)** on the actions bar, as shown:



The **English** properties page opens.

4. Click the **Blueprint** tab. Notice that the **English** page is a source or blueprint and, therefore, shows all live copies associated with it, as shown:

The screenshot shows the 'English' properties page in AEM. The 'Blueprint' tab is selected at the top. Below it, there are sections for 'Rollout' and 'Live Copy Overview'. A red box highlights the 'Current Live Copies' section, which lists three URLs: /content/wknd/ca/en, /content/wknd/gb/en-gb, and /content/wknd/us/en. There is also a 'Rollout Configs' section with a dropdown menu labeled 'Choose Rollout Config'.

5. Click **Cancel**. The **Sites** console opens.

To view the properties of a live copy:

6. Navigate to the **WKND Site > United States**, select the **English** page and click **Properties (p)** on the actions bar. The **English** properties page opens.

7. Click the **Live Copy** tab. Notice that the **English** page of the **United States** page is a live copy and has the synchronization status with the blueprint, as shown:

The screenshot shows the 'Live Copy' configuration interface for the 'English' page of the 'United States' site. The top navigation bar includes tabs for Basic, Advanced, Thumbnail, Social Media, Cloud Services, Personalization, Permissions, and Live Copy. The 'Live Copy' tab is selected and highlighted with a blue underline. Below the tabs are four action buttons: Synchronize, Reset, Suspend, and Detach. A red box highlights the 'Source' section, which displays the URL '/content/wknd/language-masters/en'. The 'Status' section shows the following details:

- Suspended Live Copy: No
- In Sync with Source: Yes
- Last Rollout Date: 6 months ago
- Last Rolled Out by: Administrator

The 'Configuration' section contains two checkboxes:

- Live Copy Inheritance ⓘ
- Inherit Rollout Configs from Parent

A dropdown menu labeled 'Choose Rollout Config' is open, showing the option 'Standard rollout config' with a close button 'X'. The 'Save & Close' button is located in the top right corner of the interface.

8. Click **Cancel**. The **Sites** console opens.

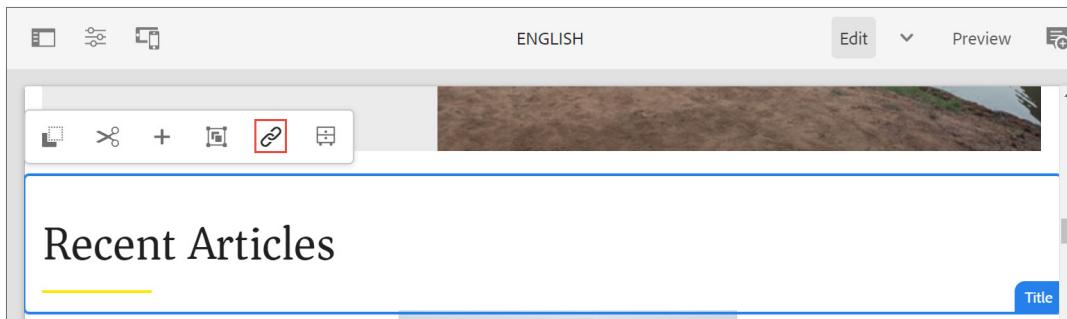
Exercise 3: Add local content to a live copy

Scenario: As an author, you want to update the content of a live copy page to be different from the blueprint.

You need to break the live relationship and content inheritance and add the local content to a component.

To add content to a live copy page:

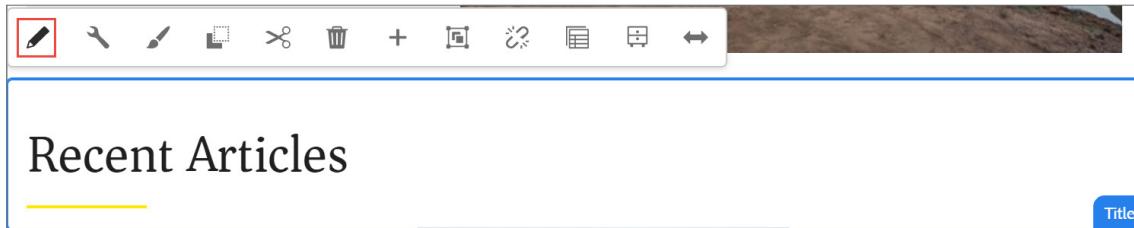
1. In the **Sites** console, navigate to the **WKND Site > Canada** page.
2. Select the **English** page and click **Edit (e)** on the actions bar. The page opens on a new tab of the browser.
3. Click the **Recent Articles** Title component on the page and click the **Cancel Inheritance** icon on the component toolbar, as shown:



The **Cancel Inheritance** dialog box appears.

4. Click **Yes**. The dialog box closes.

5. Click the **Recent Articles** Title component again and click the **Edit** icon on the component toolbar, as shown:



The title component is editable now.

6. Rename the title to **Recent Articles on Adventurous Sports**, as shown:



The **Title** component is updated.

7. Open the **Canada | AEM Sites** tab of the browser where the **English** page is selected.
 8. Click **1 selected x** on the actions bar to clear the selected **English** page.
 9. Navigate to the **WKND Site > Language Masters** page, select the **English** page and click **Edit (e)** on the actions bar. The page opens on a new tab of the browser.
 10. Notice that the inheritance between the Language Masters English (blueprint) page and the Canada English (live copy) page is broken and the content of the **Title** component in two pages are different.

Exercise 4: Update content on a blueprint page

Scenario: As an author, you want to update the content of a webpage. This webpage is the blueprint for several live copies.

You need to edit the existing content and add new components to the blueprint.

In this exercise, you will perform the following tasks:

1. Edit the existing component of a blueprint page
2. Add a new component to the blueprint page

Task 1: Edit the existing component of a blueprint page

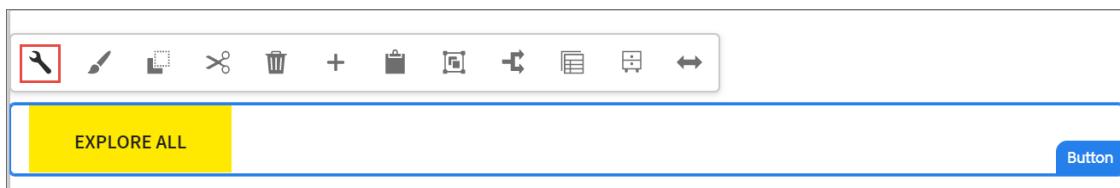
1. In the **Sites** console, navigate to the **WKND Site > Language Masters**, select the **English** page and click **Edit (e)** on the actions bar. The page opens on a new browser tab.
2. Click the **Recent Articles** Title component and click the **Edit** icon on the component toolbar. The component is editable now.
3. Rename the title to **The finest gear for adventures**, as shown:



The **Title** component is updated.

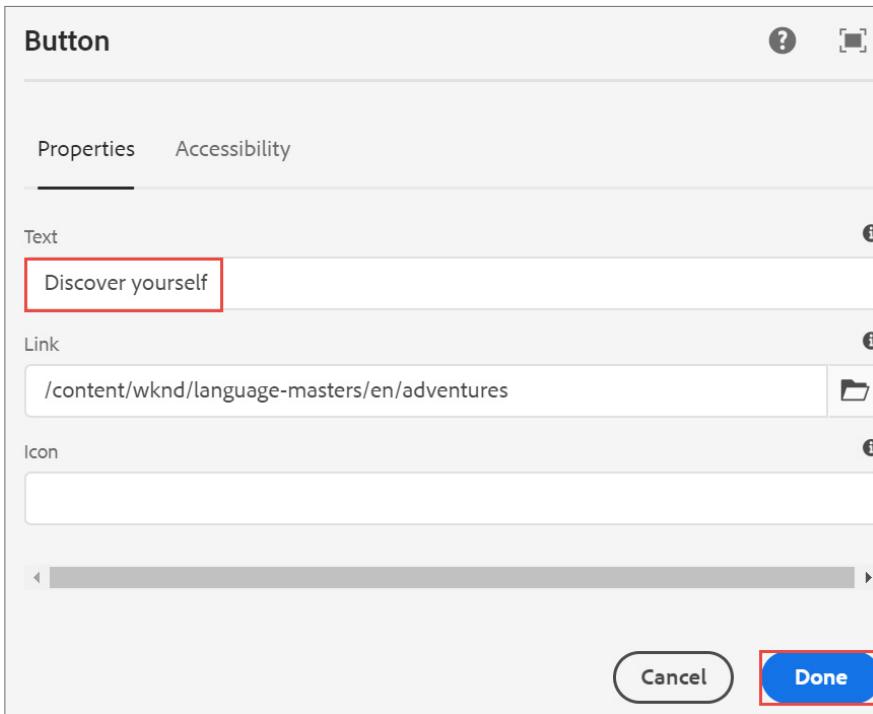
4. Scroll down the page and click the **EXPLORE ALL** button component.

5. Click the **Configure** icon on the component toolbar, as shown:



The **Button** dialog box opens.

6. On the **Properties** tab, type **Discover yourself** in the **Text** box and click **Done**, as shown:

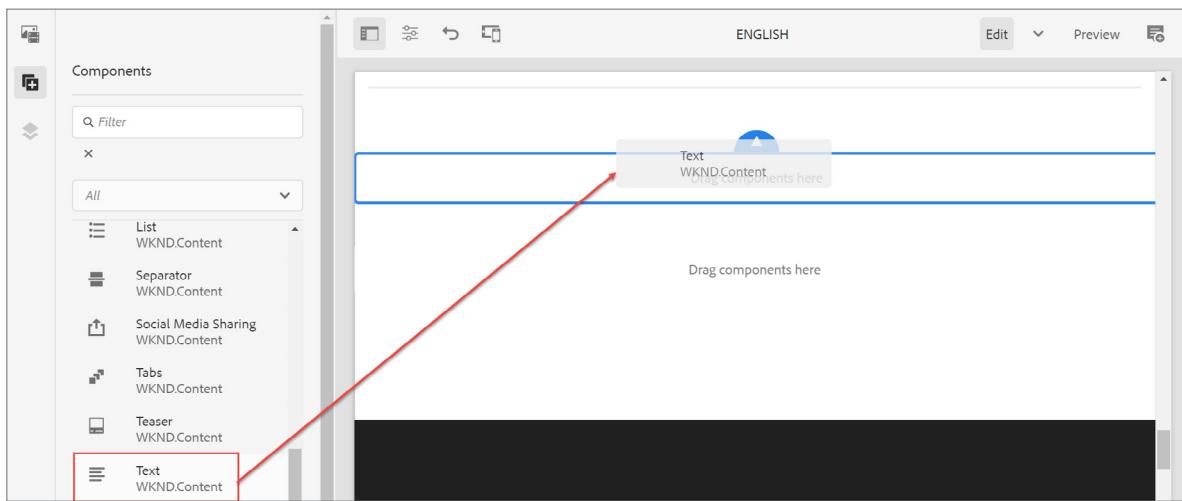


The **Button** component is updated.

Task 2: Add a new component to the blueprint page

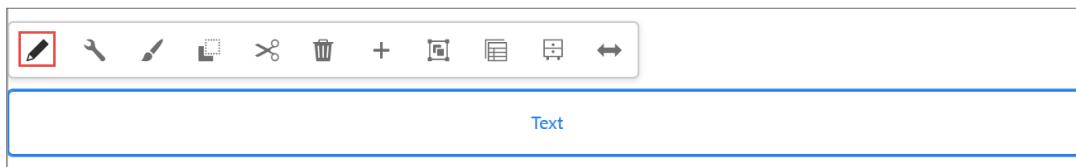
1. Ensure the **Adventures** page is open.
2. Click the **Toggle Side Panel** icon on the page toolbar. The **Assets** panel opens.
3. Click the **Components** icon. The **Components** panel opens.
4. Scroll down the panel and look for the **Text** component.
5. Scroll down the page and look for the **Drag components here** section.

6. Drag the **Text** component and drop it into the **Drag components here** section, as shown:



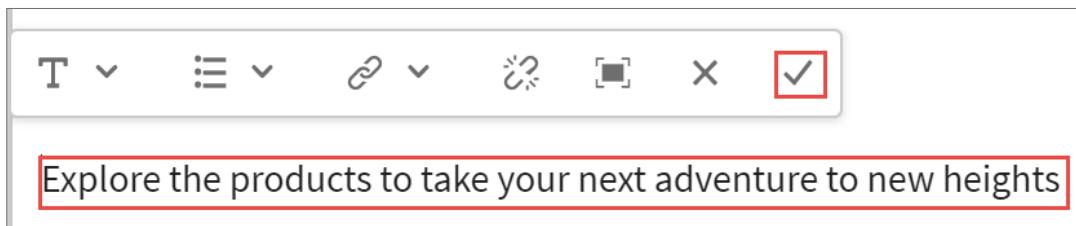
The **Text** component is added to the page.

7. Click the **Text** component and click the **Edit** icon on the component toolbar, as shown:



The component is editable now.

8. Type **Explore the products to take your next adventure to new heights** and click the **Save** icon on the component toolbar, as shown:



The **Text** component is added to the page.

9. Open the **Language Masters | AEM Sites** tab of the browser.

10. Click **1 selected x** on the actions bar to clear the selected English page.

You have successfully updated the blueprint page, which is the source of several live copies. In the next exercises, you will use this blueprint page to view the effect of the update on live copies.

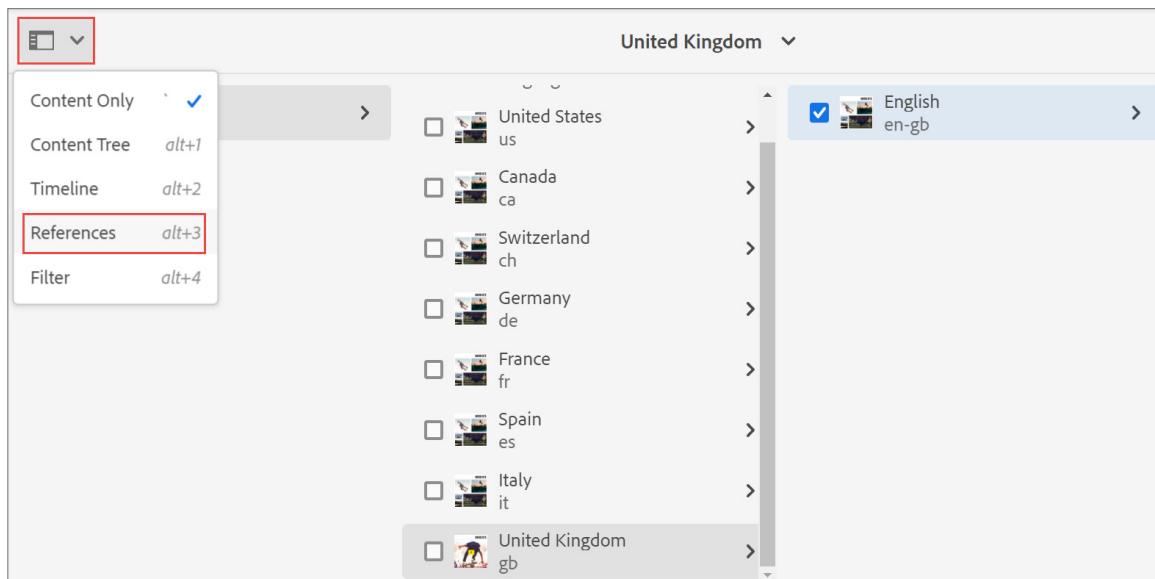
Exercise 5: Examine the MSM actions from the References panel

Scenario: As an author, you need a quick way to examine the content of blueprints and live copies and initiate actions such as rollout or synchronize.

You need to open the **References** panel to view the various actions and tools available for the blueprints and live copies.

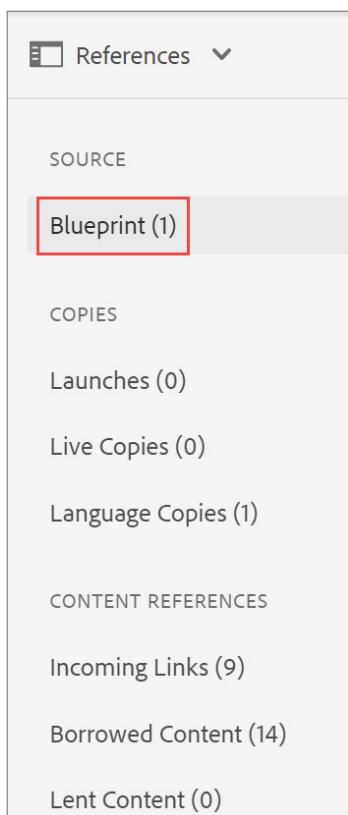
To examine the actions for a blueprint from the live copy:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate to the **WKND Site > United Kingdom**, select the **English** page, click the rail selector icon, and select **References** from the drop-down menu, as shown:



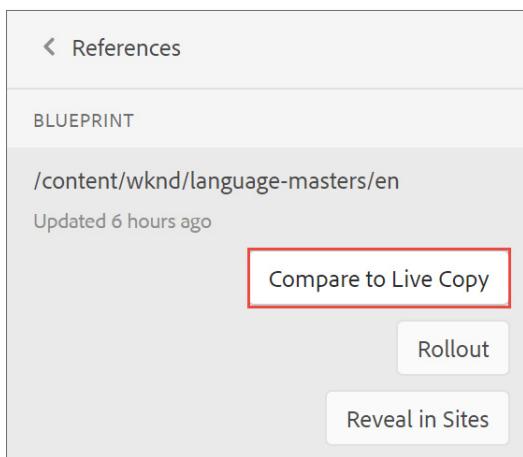
The **References** panel opens.

4. Click **Blueprint (1)** in the panel, as shown:



The blueprint from which the live copy is created appears in the panel.

5. Click `/content/wknd/language-masters/en` and click **Compare to Live Copy**, as shown:



The live copy and the blueprint open on a new browser tab.

6. Scroll down the page and notice the difference between the blueprint and the live copy is highlighted in the blueprint. The component or text that was added to the blueprint is highlighted in green, and the component and text that is localized content on the live copy is highlighted in red, as shown in the below screenshots:

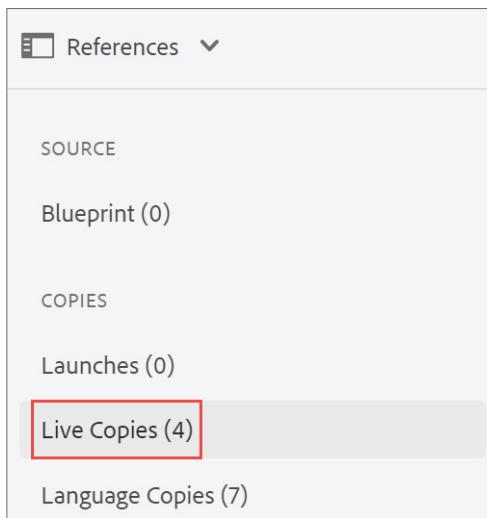
The image displays three side-by-side screenshots of the WKND website. Each screenshot shows a different section of the site with localized content highlighted by red and green boxes.

- Screenshot 1 (Top Left):** Shows a banner with the text "Recent The finest Articles gear for adventures". The word "Recent" is highlighted in red, and "Articles" is highlighted in green.
- Screenshot 2 (Top Right):** Shows a banner with the text "Recent Articles". The word "Recent" is highlighted in red.
- Screenshot 3 (Bottom Left):** Shows a banner with the text "DISCOVER YOURSELF". The word "DISCOVER" is highlighted in yellow.
- Screenshot 4 (Bottom Right):** Shows a banner with the text "EXPLORE ALL". The word "EXPLORE" is highlighted in yellow.

7. Click **Close**. The **Sites** console opens.

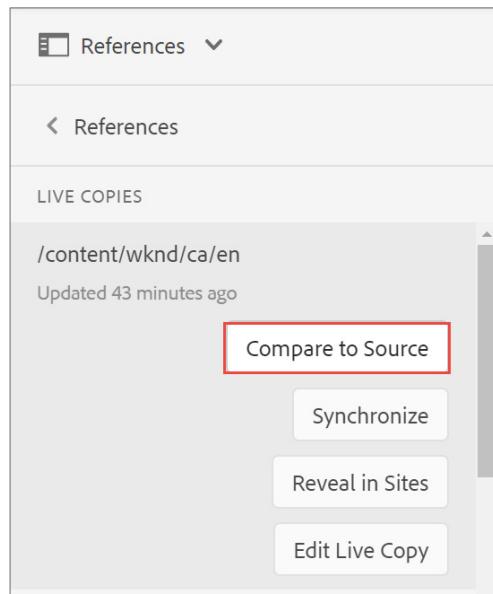
To examine the actions for a live copy from the blueprint:

8. In the **References** panel, click **Live Copies (4)**, as shown:



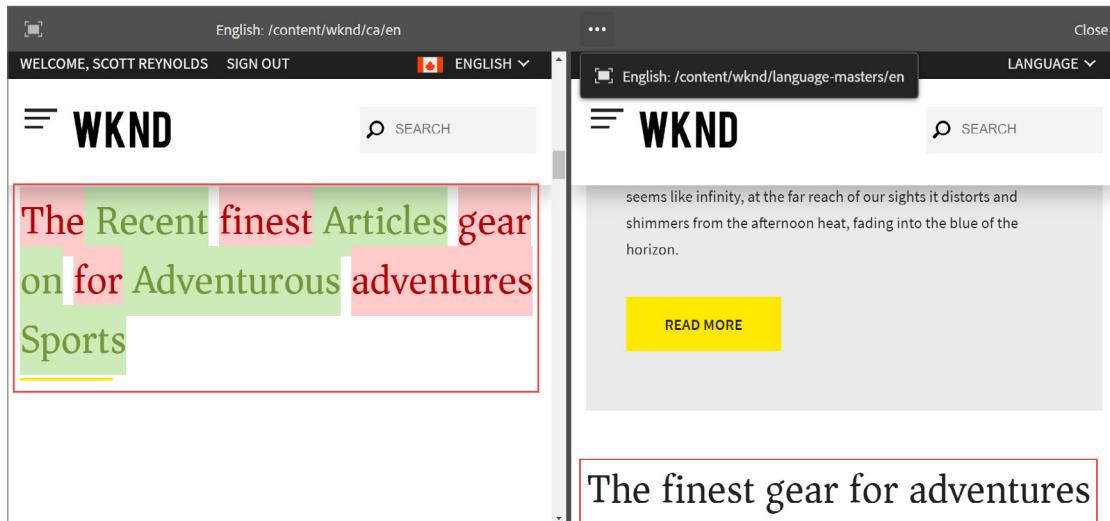
The live copies that are created from the blueprint appear in the panel.

9. Click `/content/wknd/ca/en` and click **Compare to Source**, as shown:



The live copy and the blueprint open on a new browser tab.

10. Scroll down the page and notice that difference between the live copy and the blueprint is highlighted. The component/text that was added to the live copy is highlighted in green, and the component/ text that was removed from the live copy is highlighted in red, as shown:



11. Click **Close**. The **Sites** console opens.

Types of Live Copies

When you initially create a live copy, the selected Source pages are reflected on a 1:1 basis in the live copy. After this, you can create new resources (pages and/or paragraphs) directly within the live copy, so it is useful to be aware of these variations and how they impact synchronization.

The possible types include:

- Live copy with non live copy pages
- Nested live copies
- Stacked live copies

Live Copy with Non Live Copy Pages

When you create a live copy, you can see and navigate through the live copy branch and use normal AEM functionality on the live copy branch. This means that you (or a process) can create new resources (pages and/or paragraphs) inside the live copy branch. These resources do not have live relationship with the Source or Blueprint pages and are not synchronized.

Nested Live Copies

When you (or a process) create a new page within an existing live copy, you can set up the new page as a live copy of a different blueprint. This is known as a nested live copy. Here, the behavior of the second (inner) live copy is affected by the first (outer) live copy in the following way:

- A deep rollout triggered for the top-level live copy can be continued into the nested live copy, if the trigger matches.
- Any links between the sources will be rewritten within the live copies. For example, the links from the second to the first blueprint will be rewritten as the links from the nested or second live copy to the first live copy.

Stacked Live Copies

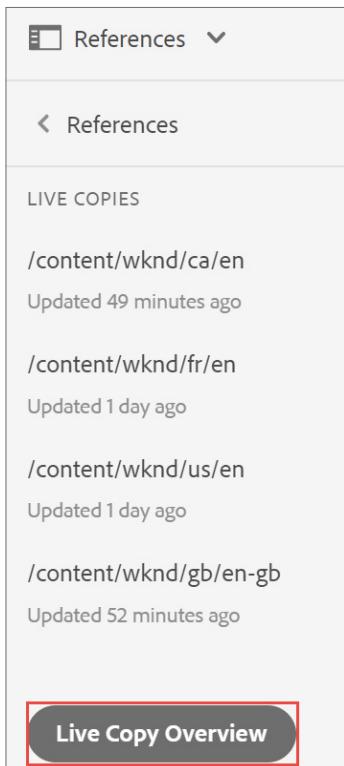
When a live copy is created as the child of a shallow live copy, it is called a stacked live copy. It has the same properties as a nested live copy.

Exercise 6: Examine the status of live copies

Scenario: As an author, you want to check the status of all live copies associated with a blueprint.

You need to access the **Live Copy Overview**.

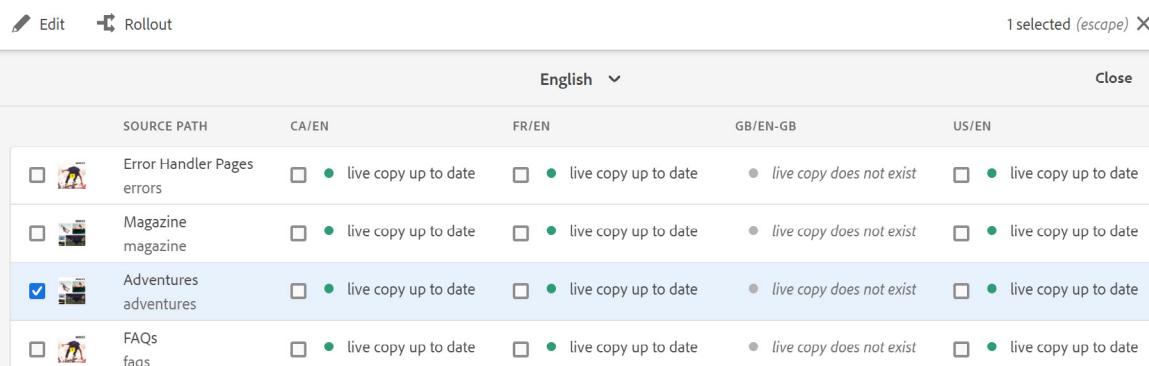
1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate to the **WKND Site > Language Masters**, select the **English** page and then click the rail selector icon.
4. In the **References** panel, click **Live Copies (4)** and click **Live Copy Overview** at the bottom of the panel, as shown:



The **Live Copy Overview** console opens with the status of each blueprint page and its live copies.

5. Select the **Adventures** blueprint page. Notice that the following actions appear on the actions bar, as shown:

- > **Edit**: Opens the page for editing
- > **Rollout**: Initiates a rollout to push the changes from the source to the live copy

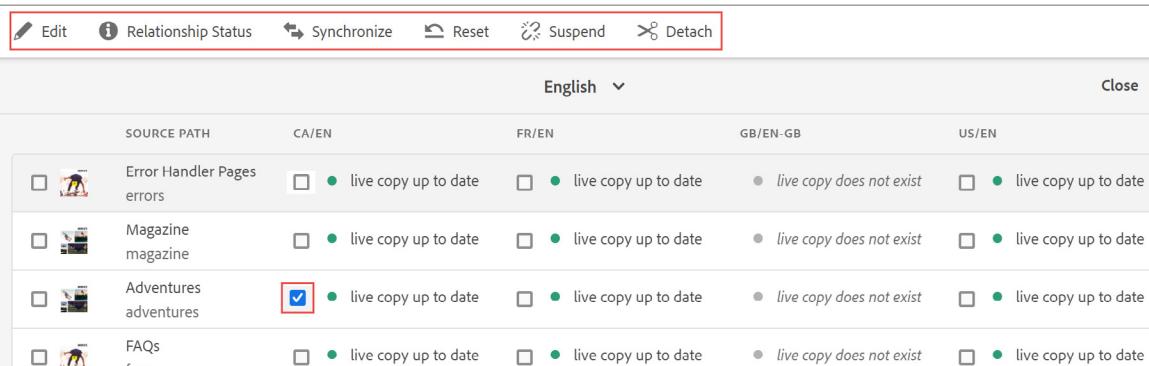


| | | | | | 1 selected (escape) X |
|---|---|---|----------------------------|---|-----------------------|
| | | | | | Close |
| SOURCE PATH | CA/EN | FR/EN | GB/EN-GB | US/EN | |
| <input type="checkbox"/>  Error Handler Pages errors | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |
| <input type="checkbox"/>  Magazine magazine | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |
| <input checked="" type="checkbox"/>  Adventures adventures | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |
| <input type="checkbox"/>  FAQs faqs | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |

6. Clear the selected **Adventures** check box.

7. Below the **CA/EN** live copy column, select the **Adventures** check box and notice that the following actions appear on the actions bar, as shown:

- > **Edit**: Opens the live copy page for editing
- > **Relationship Status**: Helps view information about the status and inheritance
- > **Synchronize**: Synchronizes live copy changes from the source to the live copy
- > **Reset**: Resets a live copy page to the same state as the Source page by overriding the inheritance relationships and resetting the local content.
- > **Suspend/Resume**: Deactivates the live relationship between a live copy and its blueprint page temporarily. A rollout will not have any effect until the live relationship resumes.
- > **Detach**: Removes the live relationship between a live copy and its blueprint page permanently



| SOURCE PATH | CA/EN | FR/EN | GB/EN-GB | US/EN | |
|---|--|---|----------------------------|---|--|
| <input type="checkbox"/>  Error Handler Pages errors | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |
| <input type="checkbox"/>  Magazine magazine | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |
| <input type="checkbox"/>  Adventures adventures | <input checked="" type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |
| <input type="checkbox"/>  FAQs faqs | <input type="checkbox"/> ● live copy up to date | <input type="checkbox"/> ● live copy up to date | ● live copy does not exist | <input type="checkbox"/> ● live copy up to date | |

8. Click **Relationship Status** on the actions bar. A console with two tabs, **Relationship Status** and **Live Copy**, appears. The **Relationship Status** tab provides information about the status of the relationship between the blueprint and the live copy, as shown:

The screenshot shows the 'Error Handler Pages' console with the 'Relationship Status' tab selected. The interface includes a header with 'Error Handler Pages', 'Cancel', and 'Save (ctrl+s)'. Below the header, there are two tabs: 'Relationship Status' (selected) and 'Live Copy'. The main content area displays 'Blueprint and Live Copies' information. It includes fields for Blueprint Path ('/content/wknd/language-masters/en/errors'), Blueprint Last Modified ('Mon Dec 02 22:43:46 UTC 2019'), Blueprint Last Modified By ('Administrator'), Live Copy Path ('/content/wknd/ca/en/errors'), and Live Copy Last Modified ('Fri May 08 09:45:30 UTC 2020'). To the right of each field is its corresponding 'Status' value: 'Live Copy Page exists' for Blueprint Path, and so on. A vertical scroll bar is visible on the right side of the content area.

9. Click the **Live Copy** tab, as shown:

The screenshot shows the 'Error Handler Pages' console with the 'Live Copy' tab selected. The interface includes a header with 'Error Handler Pages', 'Cancel', and 'Save (ctrl+s)'. Below the header, there are two tabs: 'Relationship Status' (disabled) and 'Live Copy' (selected). The main content area displays 'Source' information: '/content/wknd/language-masters/en/errors'. It also shows 'Status' details: Suspended Live Copy (No), In Sync with Source (Yes), Last Rollout Date (1 day ago), and Last Rolled Out by (Scott Reynolds). Under 'Configuration', there are two checked checkboxes: 'Live Copy Inheritance' and 'Inherit Rollout Configs from Parent', followed by a note 'Standard rollout config'. A vertical scroll bar is visible on the right side of the content area.

This tab enables you to view and edit the live copy configuration.

10. Click **Cancel** to close the console.

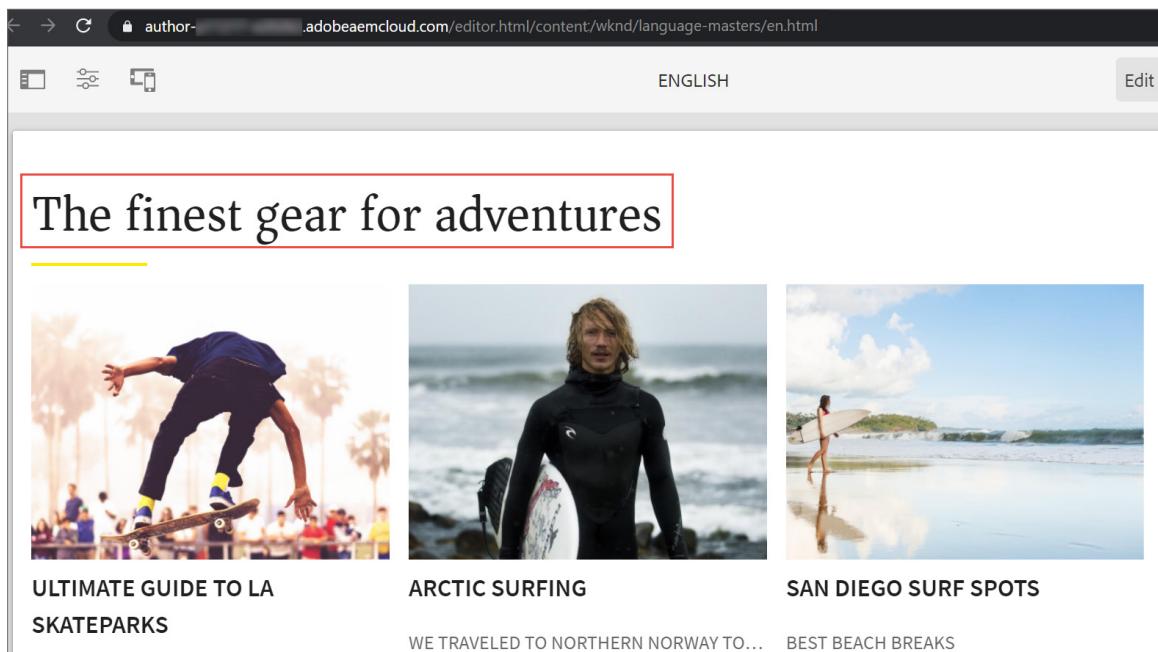
Exercise 7: Synchronize a live copy with the blueprint

Scenario: As an author, you want the content updates of a blueprint page to be applied to its live copies.

You need to synchronize the content changes of a blueprint page with its live copies.

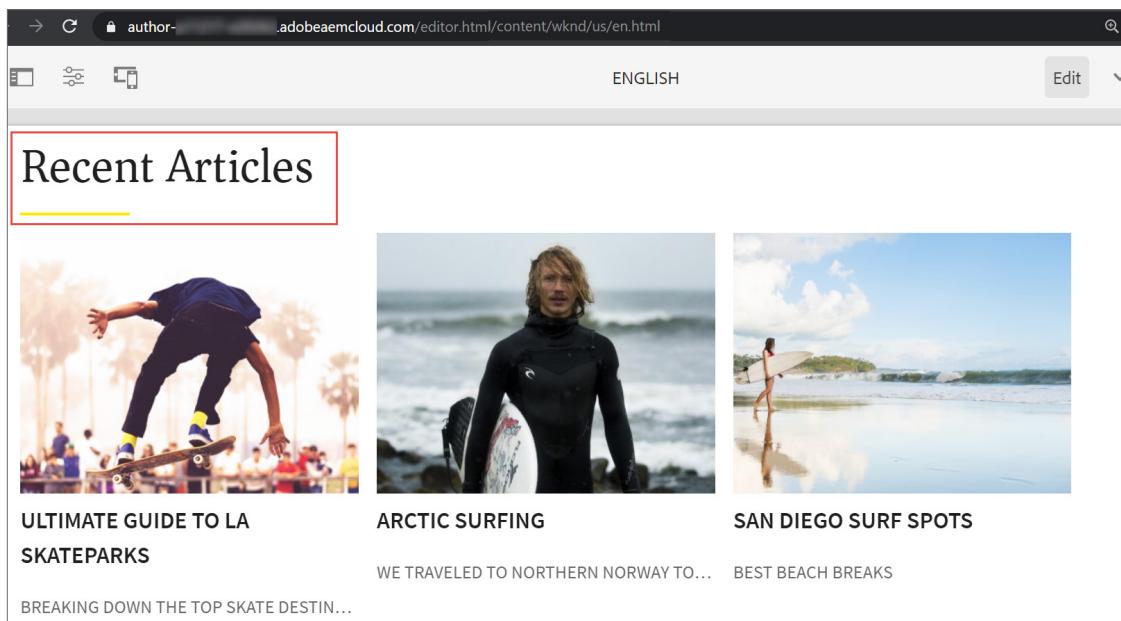
To verify if the live copy is in sync with the blueprint:

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate to the **WKND Site > Language Masters**, select the **English** page and click **Edit (e)** on the actions bar. The **English** page opens on a new tab of the browser.
4. Observe the content of the **Title** component on the page, as shown:



5. Click the **AEM Sites** tab of the browser to open the **Sites** console.
6. Navigate to the **WKND Site > United States**, select the **English** page and click **Edit (e)** on the actions bar. The **English** page opens on a new tab of the browser.

- Observe the content of the **Title** component on the page, as shown. Notice that the **Title** component of the live copy (**United States > English**) page is not same as the blueprint (**Language Masters > English**) page:



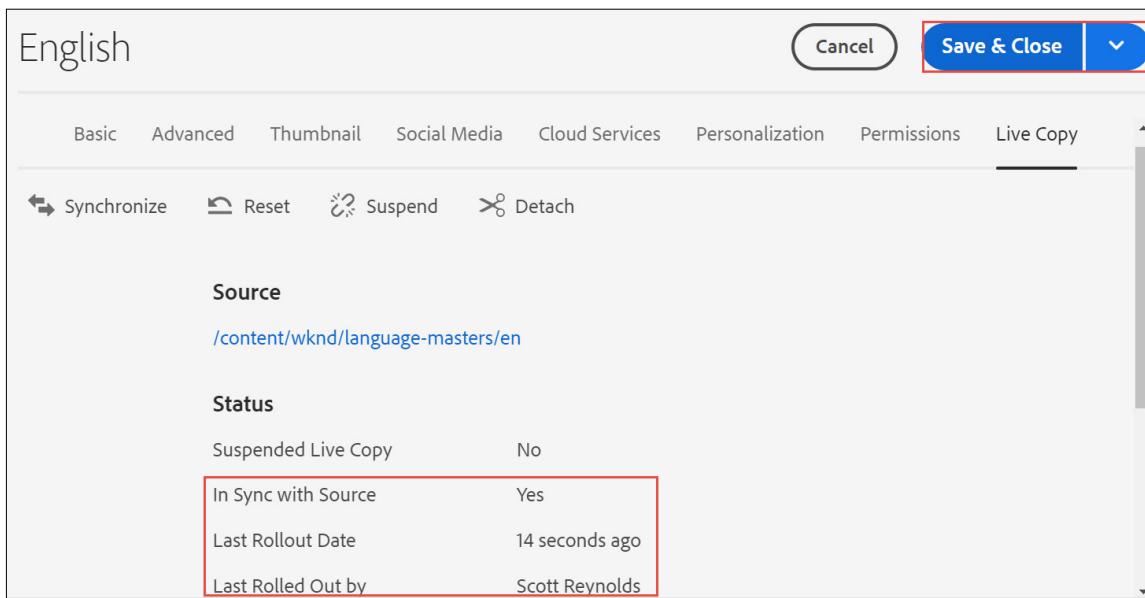
- Navigate to the **WKND Site > United States**, select the **English** page and click **Properties (p)** on the actions bar. The **English** properties page opens.
- Click the **Live Copy** tab and notice that **In Sync with Source** status is set to **No**, as shown:

| Source | |
|---|--|
| /content/wknd/language-masters/en | |

| Status | |
|----------------------------|--------------|
| Suspended Live Copy | No |
| In Sync with Source | No |
| Last Rollout Date | 6 months ago |

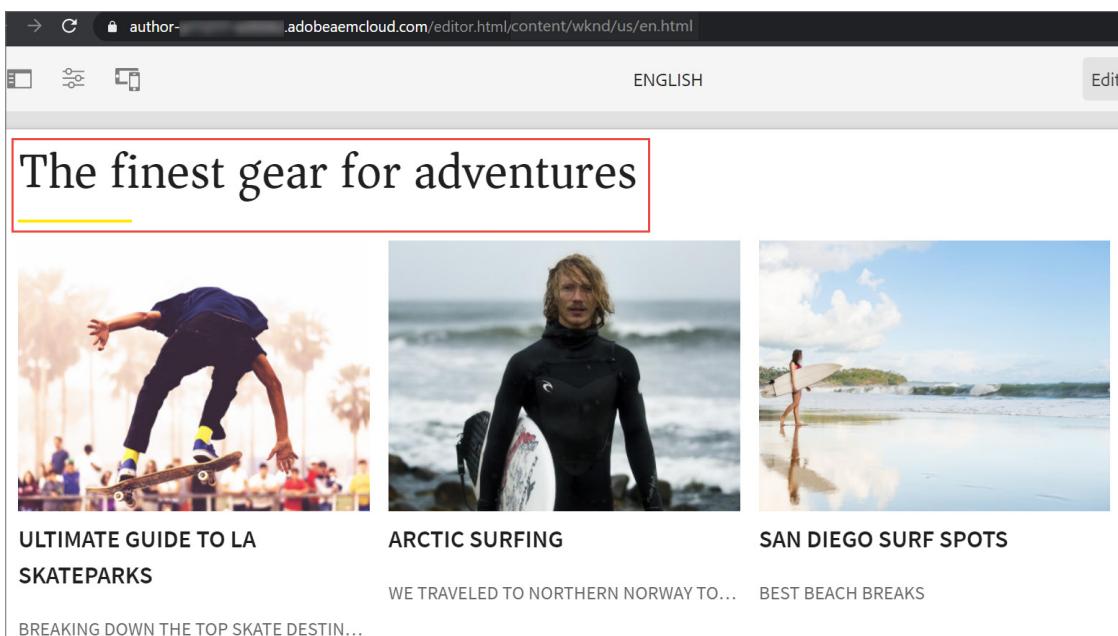
- Click **Synchronize**. The **Synchronize Live Copy** dialog box opens.
- Click **Sync**. The dialog box closes.
- Click the **Live Copy** tab and notice that in the **Status** section, the value of **In Sync with Source** is changed to **Yes** and the **Last Rollout Date** is changed.

13. Click **Save & Close**, as shown:



The form has been submitted successfully message appears.

14. Navigate to the **WKND Site > United States**, select the **English** page and click **Edit (e)** on the actions bar. The **English** page opens on a new tab of the browser.
15. Notice that the live copy (**United States > English**) page content is updated due to the sync action that you performed in step 10 and 11, as shown:



16. Open the **United States | AEM Sites** tab of the browser.
17. Click **1 selected x** on the actions bar to clear the selected **English** page.

Blueprint Configurations

With a blueprint configuration, you can have many live copies of the blueprint. You can update all live copies at once. When a blueprint configuration exists for a page or is inherited from a page, the **Rollout** button is enabled in the user interface to synchronize several or all live copies easily.

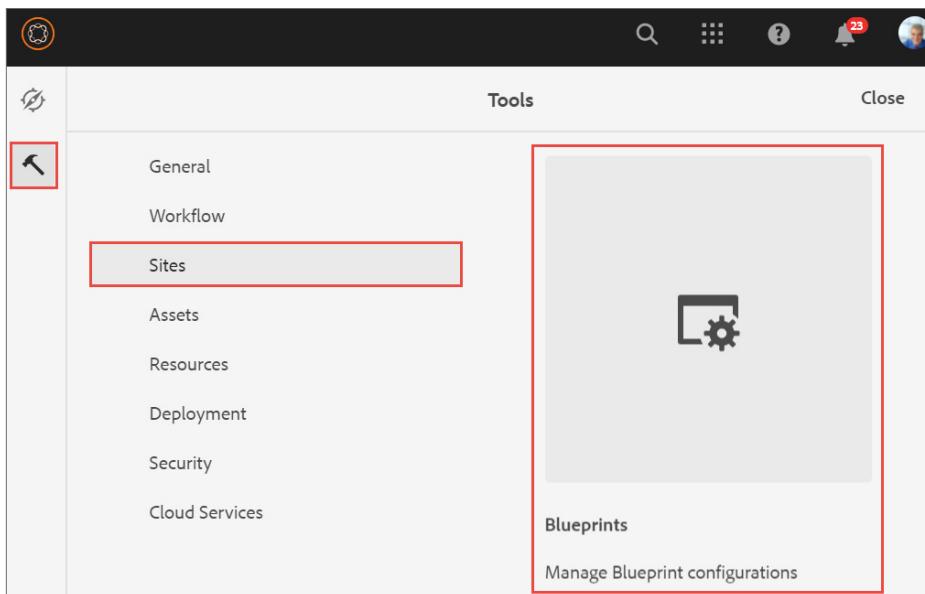
Additionally, the blueprint configuration will make the creation of new copies of websites easier by providing a sites creation wizard in the **Sites** console.

A blueprint configuration:

- Adds additional UI features to manage an existing website that consists of blueprint pages that are the source content for one or more live copy pages.
- Helps push or rollout content changes to many live copies with a rollout action.

A blueprint configuration is created automatically in AEM as a Cloud service when you create a new live copy. In earlier AEM versions, such as AEM 6.5, you need to create the blueprint configuration manually in the **Blueprints** console.

You can access the **Blueprints** console from **Tools > Sites** console, as shown:



The **Blueprints** console helps create and manage blueprint configurations.

| CONFIGURATION | SOURCE |
|----------------------|--------------------------------|
| Experience Fragments | /content/experience-fragments |
| WKND Site Blueprint | /content/wknd/language-masters |

Blueprint Templates

The blueprint configuration has an additional function that gets invoked when a blueprints configuration is set. This function creates a template of the website hierarchy including page content that can be used to quickly clone the website.

For this feature to work, the source website needs to follow a recommended site structure for multilingual websites. The immediate child pages of the root are the language branches of the website. The root of each language branch has one or more child pages.

After you create the blueprint configuration, you need to configure the following values:

- The name of the blueprint configuration.
- The path of the root page of the site that you are using as the source (blueprint).
- An optional description of the blueprint configuration, which appears in the list of blueprint templates to be chosen from.

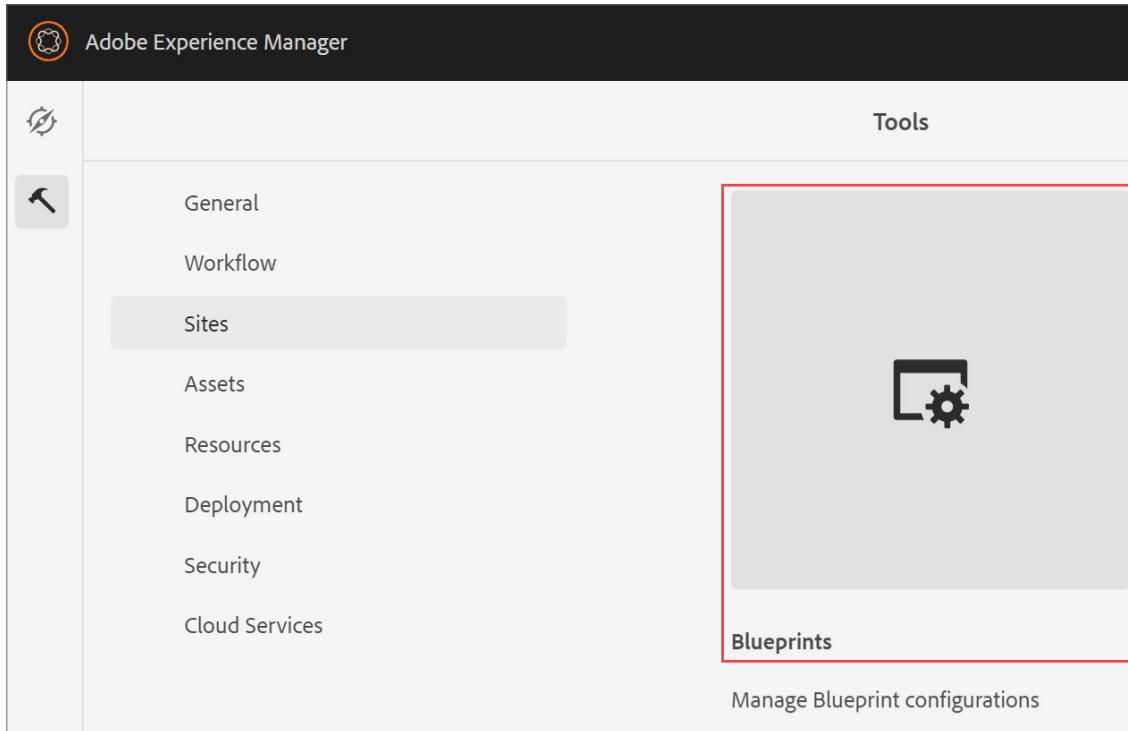
When you use the blueprint configuration, you can associate it with rollout configurations that determine how many triggers are configured to automate MSM actions, such as the live copies of the source/blueprint are synchronized.

Exercise 8: Examine a blueprint configuration

Scenario: As a power user, you want to examine the available blueprint configurations.

You need to access the **Blueprints** console.

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click the **Tools** icon and click **Sites > Blueprints**, as shown:

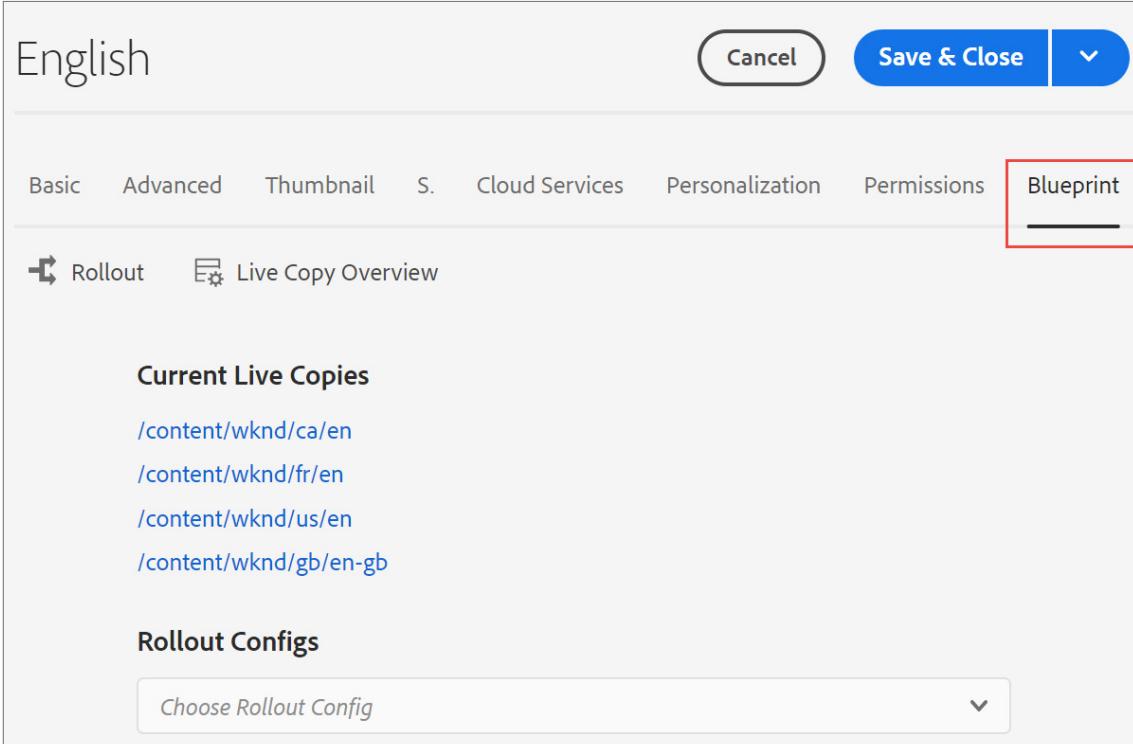


The **Blueprint Configurations** console opens.

3. Notice that a default blueprint configuration is created for the **WKND Site Blueprint**, as shown:

| Blueprint Configurations | | | <input checked="" type="checkbox"/> Select All |
|--------------------------|----------------------|--------------------------------|--|
| <input type="checkbox"/> | CONFIGURATION | SOURCE | |
| <input type="checkbox"/> | Experience Fragments | /content/experience-fragments | |
| <input type="checkbox"/> | WKND Site Blueprint | /content/wknd/language-masters | |

4. Click **/content/wknd/language-masters** in the **SOURCE** column. The **Sites** console opens.
5. Navigate to the **WKND Site > Language Masters**, select the **English** page and click **Properties (p)** on the actions bar. The **English** properties page opens.
6. Click the **Blueprint** tab, as shown. The **Blueprint** tab exists for the English page because of the blueprint configuration that was created for Language Masters:



The screenshot shows the **English** properties page. At the top right are **Cancel** and **Save & Close** buttons. Below them is a navigation bar with tabs: Basic, Advanced, Thumbnail, S., Cloud Services, Personalization, Permissions, and **Blueprint**. The **Blueprint** tab is highlighted with a red box. Under the tabs, there are sections for **Current Live Copies** (listing URLs like </content/wknd/ca/en>, </content/wknd/fr/en>, </content/wknd/us/en>, </content/wknd/gb/en-gb>) and **Rollout Configs** (with a dropdown menu labeled **Choose Rollout Config**). The **Blueprint** tab is also highlighted with a red box.

This tab contains the list of live copies and rollout configs associated with the page.

7. Click **Cancel** to close the properties page.

Rollout Configurations

Rollout configurations automate the initiation of blueprint rollouts, publish actions and workflow processes on live copies. You can configure triggers to wait for specific events to occur on the author service. When such an event occurs, one or several specified actions are executed. A set of useful out-of-the-box (OOTB) configurations are included in AEM to meet the common requirements and automate the capabilities of Live Copy and Blueprint Configurations.

A rollout configuration:

- Is a relationship between the source and the live copy
- Is applied to the blueprint page and is inherited to the child pages of the page
- Consists of a list of available event listeners that can trigger a set of actions

In the rollout configuration, the listener observes the events occurring on a blueprint page, while the actions are executed on the resources that have a live relationship with the blueprint page.

When an event occurs:

- A trigger observes it and starts the rollout process.
- MSM collects all rollout configurations and assembles the actions in each rollout configuration.
- Actions are executed in the order the rollout configurations are assigned.

The rollout configurations can be attached to Blueprint pages and Live Copy pages. The rollout configurations can also be inherited from the parent page. The location of the rollout configuration determines which configuration applies to a specific live copy.

If several rollout configurations apply to a live copy, rollout configurations are applied based on the order of precedence as described. The following table describes the location properties:

| Location | Description |
|----------------------------------|---|
| Live Copy page properties | When a live copy page is configured to use one or more rollout configurations, MSM uses those rollout configurations. |
| Blueprint page properties | When a live copy is based on a blueprint, and the live copy page is not configured with a rollout configuration, the rollout configuration that is associated with the blueprint source page is used. |
| Live Copy Parent page properties | When neither the live copy page nor the blueprint Source page is configured with a rollout configuration, the rollout configuration that applies to the live copy page's parent page is used. |
| System Default | When the rollout configuration of the live copy's parent page cannot be determined, the system default rollout configuration is used. |

OOTB Rollout Configurations

Many OOTB rollout configurations are available with AEM. The following table describes the available rollout configurations and their functions:

| Rollout Configuration | Description |
|--------------------------------------|---|
| Standard rollout config | Enables to start the rollout process on rollout trigger and runs actions, such as create, update, delete content, and order child nodes |
| Activate on Blueprint activation | Publishes the live copy when the source is published |
| Deactivate on Blueprint deactivation | Deactivates the live copy when the source is deactivated |
| Push on modify | Pushes the content to the live copy when the source is modified |
| Push on modify (shallow) | Pushes the content to the live copy when the blueprint page is modified, without updating the references |
| Promote Launch | Promotes launch pages |
| Catalog Page Content | Applies page templates from a catalog blueprint |
| Catalog page update | Applies target properties from a catalog blueprint and needs to be run after Catalog Page Content Rollout Config |

 **Note:** To learn about the trigger and synchronization actions associated with the above rollout configurations, refer to <https://helpx.adobe.com/experience-manager/6-5/sites/administering/using/msm-sync.html>

 **Note:** If the out-of-the-box rollout configuration actions do not meet your requirements, you can create a custom rollout configuration in AEM.

Trigger

A trigger is an event that causes a rollout configuration to execute the configured actions, such as the activation of a Live Copy page.

Each rollout configuration has a specific trigger event. This event initiates the configured actions. The following table describes trigger events that are available to rollout configurations:

| Trigger | Description |
|-----------------|---|
| On Rollout | The Rollout command is used on the source page, or the Synchronize command is used on the Live Copy page. |
| On Modification | The Source page is modified. |
| On Activation | The Source page is activated. |
| On Deactivation | The Source page is deactivated. |

Standard Rollout Config

The Standard Rollout Config is the default fallback config when no other config is specified on the live copy, the blueprint or is inherited:

| Trigger | Actions |
|------------|--|
| On Rollout | contentUpdate
contentCopy
contentDelete
referencesUpdate
orderChildren |

Additional Rollout configurations

The following table lists the additional rollout configurations with their triggers and sync actions:

| Rollout config | Trigger | Synchronization actions |
|--------------------------------------|-----------------|--|
| Activate on Blueprint activation | On Activation | targetActivate |
| Deactivate on Blueprint deactivation | On Deactivation | targetDeactivate |
| Push on modify | On Modification | contentUpdate, contentCopy, contentDelete, referencesUpdate, orderChildren |
| Push on modify (shallow) | On Modification | contentUpdate, contentCopy, contentDelete, orderChildren |

Exercise 9: Rollout content changes to live copies automatically

Scenario: As an author, you need to update the content of published pages that are blueprints to several live copies regularly. You want to automate the rollout of content to the live copies.

You need to add a rollout configuration to the blueprint page to ensure that the live copies are published automatically after publishing the blueprint.

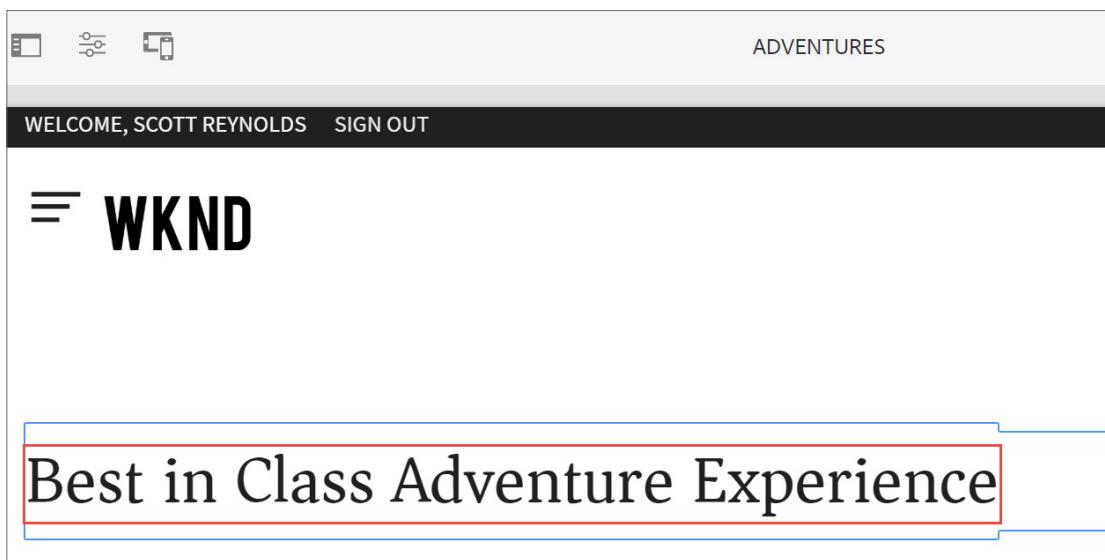
In this exercise, you will perform the following tasks:

1. Edit and publish the blueprint page
2. Automate the live copy page publishing process

Task 1: Edit and publish the blueprint page

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** panel opens.
2. Click **Sites** to open the console.
3. Navigate to the **WKND Site > Language Masters > English**, select the **Adventures** page and click **Edit** on the actions bar. The page opens on a new tab of the browser.
4. Select the **Adventures** Title component on the page and click the **Edit** icon on the component toolbar.

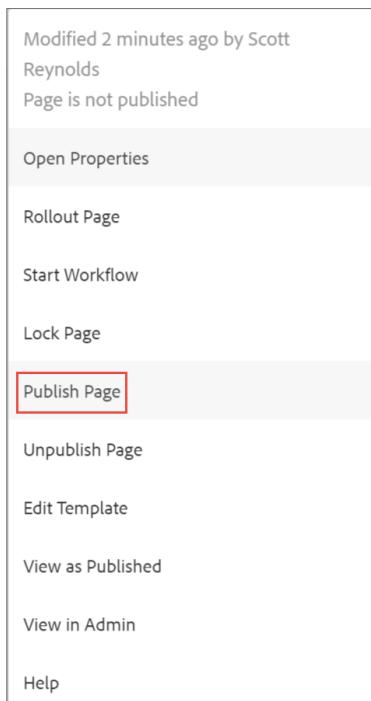
5. Rename the title to **Best in Class Adventure Experience**, as shown:



The **Title** component is updated.

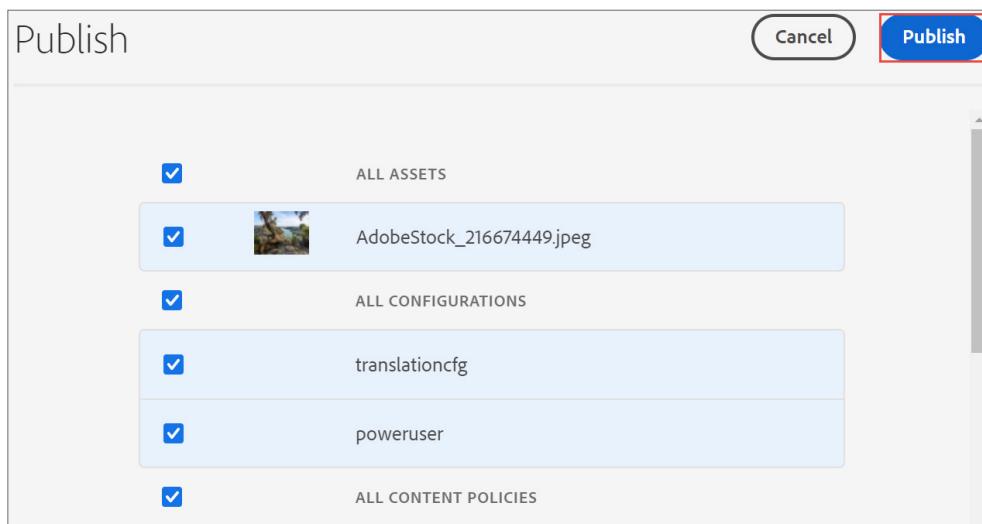
To publish the blueprint page:

6. Click the **Page Information** icon on the page toolbar and select **Publish Page** from the drop-down menu, as shown:



The **Publish** wizard opens.

7. Ensure all assets and references check boxes are selected and click **Publish**, as shown:



The page has been published success message appears.

To observe the changes on live copies:

8. Click the **AEM Sites** tab of the browser where the AEM author service is running.
9. Click **1 selected (escape) x** on the actions bar to clear the selected **Adventures** page.
10. Navigate to the **WKND Site > United Kingdom > English** and select the **Adventures** page.

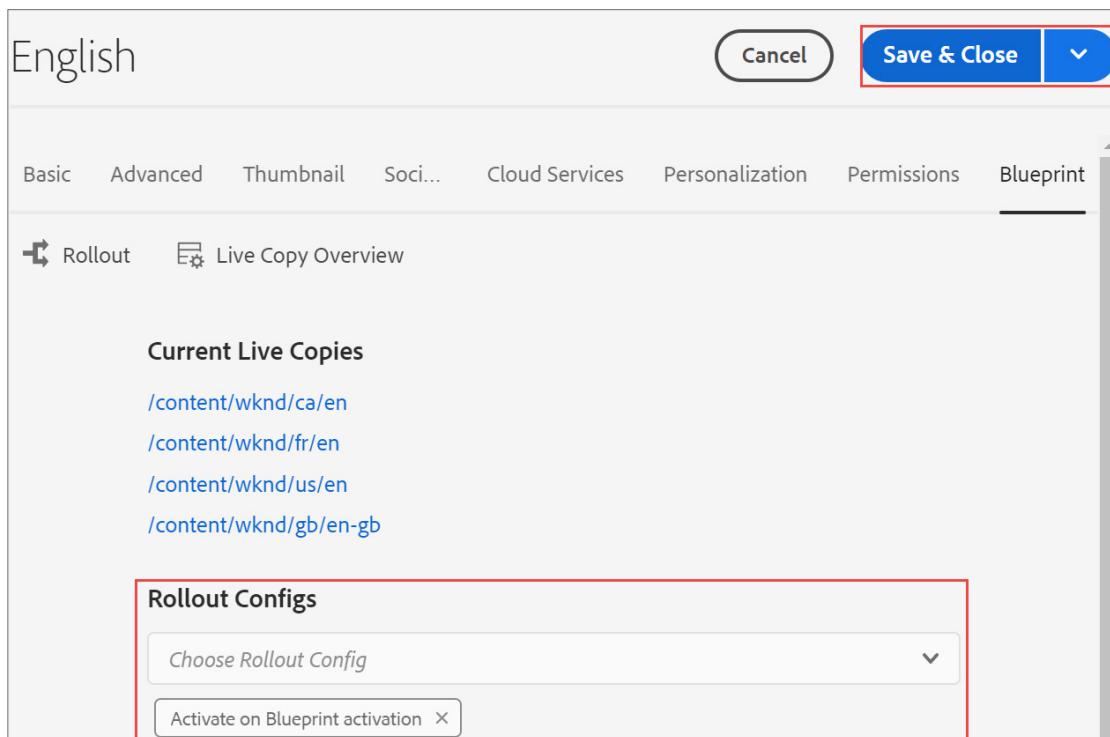
Notice that the live copy is not published, as shown:

| | |
|-------------|---|
| Title | Adventures |
| Name | adventures |
| Template | Landing Page Template |
| Modified | Oct 28, 2019 |
| Modified By | Administrator |
| Description | Join us on one of our next adventures. Browse our list of curated experiences and sign up for one when you're ready to explore with us. |
| Language | English |
| Published | Not published |

11. Similarly, observe that the **Adventures** page under the **United States** and **Canada** live copies are not published.

Task 2: Automate the live copy page publishing process

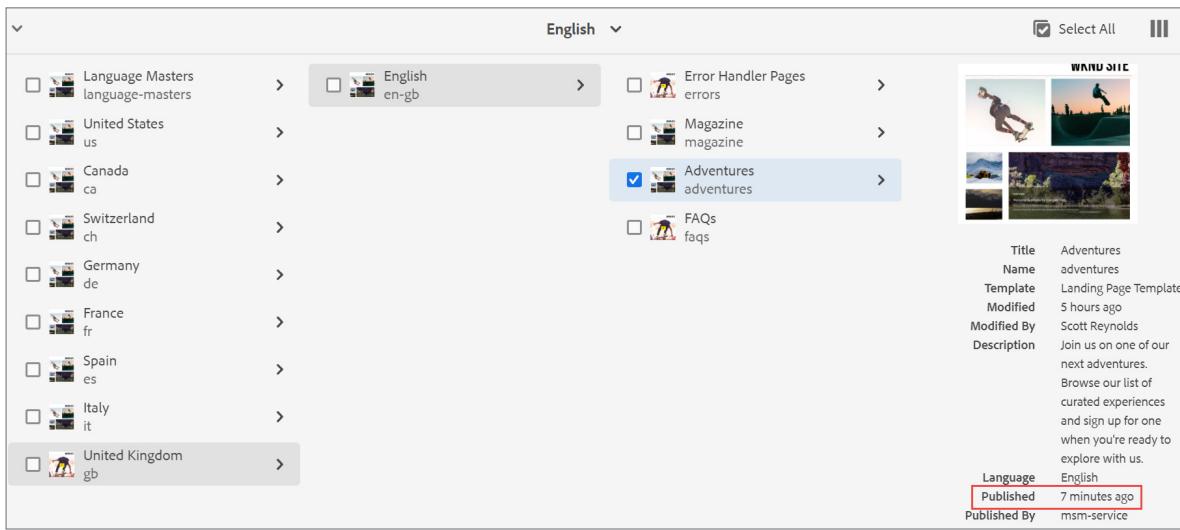
1. Navigate to the **WKND Site > Language Masters**, select the **English** page and click **Properties (p)** on the actions bar. The **English** properties page opens.
2. Click the **Blueprint** tab, select **Activate on Blueprint activation** from the **Rollout Configs** drop-down menu and click **Save & Close**, as shown:



The **form has been submitted successfully** message appears.

3. Navigate to the **WKND Site > Language Masters > English**, select the **Adventures** page and click **Quick Publish** on the actions bar. The **Quick Publish** dialog box opens.
4. Click **Publish**. The dialog box closes.

5. Navigate to the WKND Site > United Kingdom > English and select the Adventures page. Notice that the live copy is now published, as shown:



The screenshot shows the AEM navigation tree for the 'English' site. The 'Adventures' page is selected and highlighted with a blue border. To the right of the tree, there is a preview area showing a collage of images related to adventures. Below the preview, detailed information about the 'Adventures' page is displayed in a table.

| | |
|--------------|---------------|
| Language | English |
| Published | 7 minutes ago |
| Published By | msm-service |

Page Properties:

- Title:** Adventures
- Name:** adventures
- Template:** Landing Page Template
- Modified:** 5 hours ago
- Modified By:** Scott Reynolds
- Description:** Join us on one of our next adventures. Browse our list of curated experiences and sign up for one when you're ready to explore with us.

6. Similarly, observe that the Adventures page under the United States and Canada live copies are also published because the live copies have inherited the Activate on Blueprint activation rollout config. This rollout publishes the live copy when the source is published.

MSM Implementation Guidelines

MSM helps use the same site content in multiple locations. MSM implementations often involve major portions of a website and span organizations and geographies. It is, therefore, highly recommended to plan the MSM implementations as carefully as you plan your website.

To determine the best approach for MSM implementation, consider the following:

- How much content need to have multiple versions?
- Can the original website or parts of it be copied without any changes?
- How much copied content needs to be adjusted?

MSM: Best Practices

There are some best practices you can follow when using MSM in AEM:

- Plan the website structure and content flows before starting the implementation.
- Customize websites as much as necessary, but as little as possible.
 - > MSM supports a high degree of customization, such as rollout configurations. However, the best practice is to minimize customization to ensure optimum performance, reliability, and upgradeability of your website.
- Establish a governance model early and train the users accordingly to ensure success.
 - > Minimize the authority that the local content producers have to allocate or to connect content to other local users and their respective live copies. The ungoverned, chained inheritances can significantly increase the complexity of an MSM structure and compromise its performance and reliability.
- Create a prototype and test your system before starting live implementation and after the website structure, content flow, automation and governance is complete.

References

- [Extending the Multi Site Manager](#)

Customize Multi Site Manager

Introduction

The organizations that deal with multiple locales and regions can update their websites without any delay or overhead of maintaining multiple copies for different languages by using the default Adobe Experience Manager (AEM) rollout configurations. AEM enables you to define custom actions for rollout configurations based on the business requirements.

Objectives

After completing this module, you will be able to:

- Explain rollout triggers and actions
- Apply custom rollout configs

Custom Rollout Configurations

When content in a blueprint, such as a page, an asset, or an experience fragment, is rolled out to a live copy, Multi Site Manager (MSM) collects all rollout configurations and assembles the live sync actions that apply to the specific blueprint page. The rollout configurations sync actions are then executed in a specified order. A number of sync actions are available out-of-the-box with AEM. However, if you need a specific action to be applied to content upon synchronization and that action is not available, you can create a custom sync action.

Structure Changes and Rollouts

The modifications to the content structure in a blueprint or source tree reflect differently in a live copy. The outcomes are dependent on the following modification types:

- Creating new pages in a blueprint results in corresponding pages being created in live copies after rollout with the standard rollout configuration
- Deleting pages in a blueprint results in corresponding pages being deleted from live copies after rollout with standard rollout configuration
- Moving pages in a blueprint does not result in moving corresponding pages in live copies after rollout with standard rollout configuration. The pages in the live copies are not moved because:
 - A page move implicitly includes a page delete. This could potentially lead to unexpected behavior on publish, as deleting pages on the author service automatically deactivates corresponding content on publish. This can also affect related items such as links and bookmarks.
 - Content inheritance in the respective live copy pages is updated to reflect the new location of their sources in the blueprint.

Customize Rollouts

MSM rollout configurations are highly customizable. You must be aware that automating rollouts can have far reaching consequences. As a best practice, you must plan carefully before:

- Automating rollouts. When using the rollout trigger **onModify**, you should consider that:
 - > Automating rollouts with **onModify** triggers may have a negative impact on authoring performance because they trigger rollouts after every page modification
 - > The rollout result may differ from the one expected because:
 - » You cannot specify the order of the resulting modify events
 - » The event-based architecture cannot guarantee the sequence of the events passed to the Rollout Manager
 - > Using the rollout configuration could lead to commit conflicts if concurrent updates of the same resource occur.
 - > You should use **onModify** triggers only if the benefits of the automatic rollout initiation outweigh any potential performance issues.
- Customizing node types and properties. MSM enables you to customize node properties that are being rolled out. The MSM Open Service Gateway Initiative (OSGi) configuration helps exclude node types from being copied from the source to the live copy.
- Starting subsequent workflows.
- Activating content as part of rollouts.

Exercise 1: Observe or create and test a new rollout config

Scenario: As an author, you want the live copy pages to automatically reflect the page movements that occur on the blueprint. You need to create a custom rollout configuration when a *move page* event occurs.

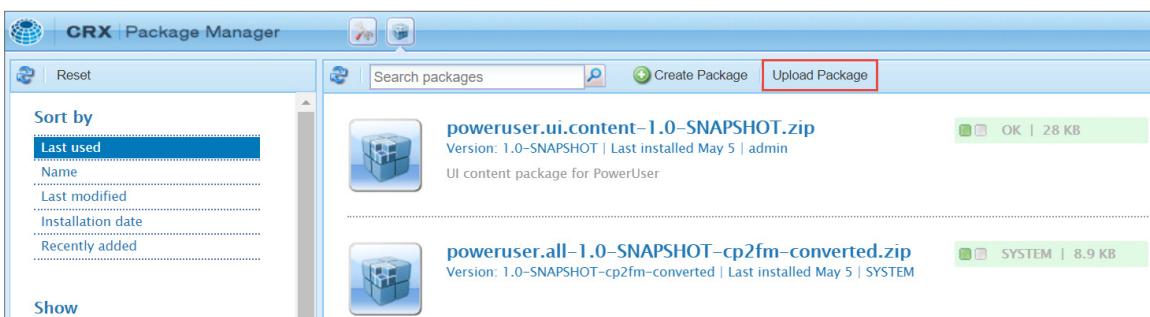
You will perform the following tasks:

1. Observe or create a new rollout config
2. Test the rollout config manually

Note: If this training uses an AEM as a Cloud Service environment, all custom codes are installed through the CI/CD pipeline. So, the custom **PageMoveAction** rollout config used in Task 1 is already added to your author service through this process. Task 1 outlines the steps to upload content packages available in the Exercise Files for local development. You need to observe the steps in Task 1 and perform the steps in Task 2.

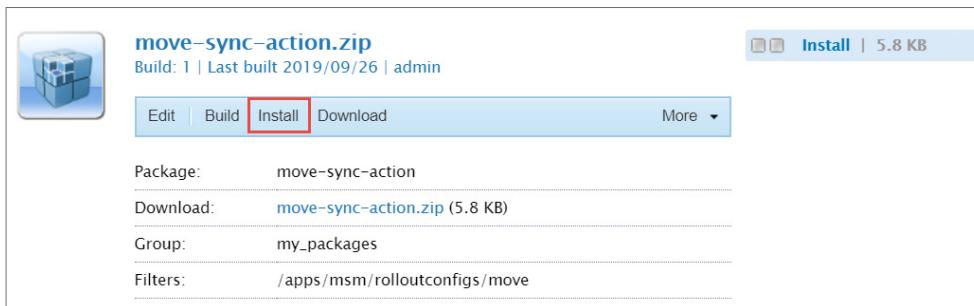
Task 1: Observe or create a new rollout config

1. Click **Adobe Experience Manager** from the header bar. The **Navigation** page opens.
2. Click the **Tools** icon and then click **CRXDE Lite**. The **CRXDE Lite** page opens.
3. Click the **Package** icon on the actions bar. The **CRX | Package Manager** page opens.
4. Click **Upload Package** on the actions bar, as shown:



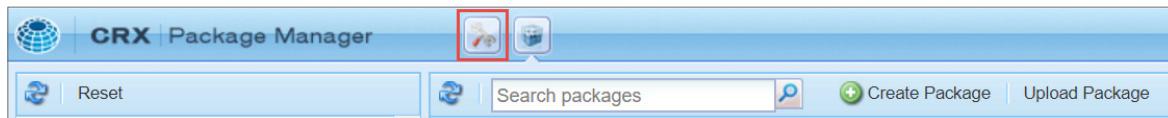
The **Upload Package** dialog box opens.

5. Click **Browse**. The **Open** dialog box appears.
6. On your file system, navigate to the **Exercise_Files > Customize Multi Site Manager**, select the **move-sync-action.zip** folder and click **Open**. The package is added to the **Upload Package** dialog box.
7. Click **OK**. The package is uploaded to your instance.
8. Click **Install** on the **move-sync-action.zip** package actions bar, as shown:



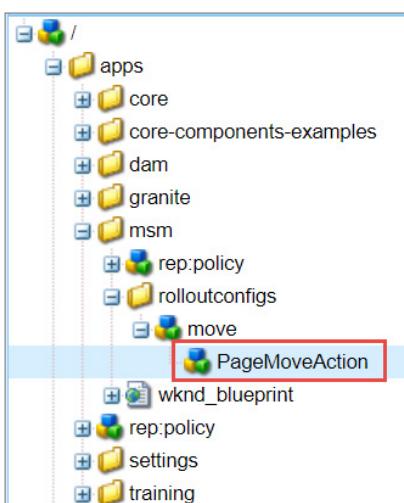
The **Install Package** dialog box opens.

9. Click **Install**. The package details appear in the **Activity Log** tab.
10. Click the **Develop** icon on the header bar, as shown:



The **CRXDE Lite** page opens.

11. Navigate through **/apps/msm/rolloutconfigs** and notice the package has created the **move** rollout config with **PageMoveAction** on your instance, as shown:



Task 2: Test the new rollout config manually

1. Navigate to the browser tab where the AEM author service is open.
2. Click the **Navigation** icon. The **Navigation** page opens.
3. Click **Sites**. The **Sites** console opens.
4. Navigate through the **WKND Site > Language Masters** and select the **English** page.
5. Click **Create** on the actions bar and select **Live Copy** from the drop-down menu, as shown:

The screenshot shows the AEM Sites console. The left sidebar has options: Workflow, Version, Page, Site, Live Copy (highlighted with a red box), Launch, Language Copy, and CSV Report. The main area shows the Language Masters structure. Under Language Masters, there are nodes for English (selected, checked), Switzerland, United States, Canada, Deutsch, Français, Italiano, and Irish. The 'Create' button in the top bar is also highlighted with a red box.

The **Select Destination** section of the **Create Live Copy** wizard appears.

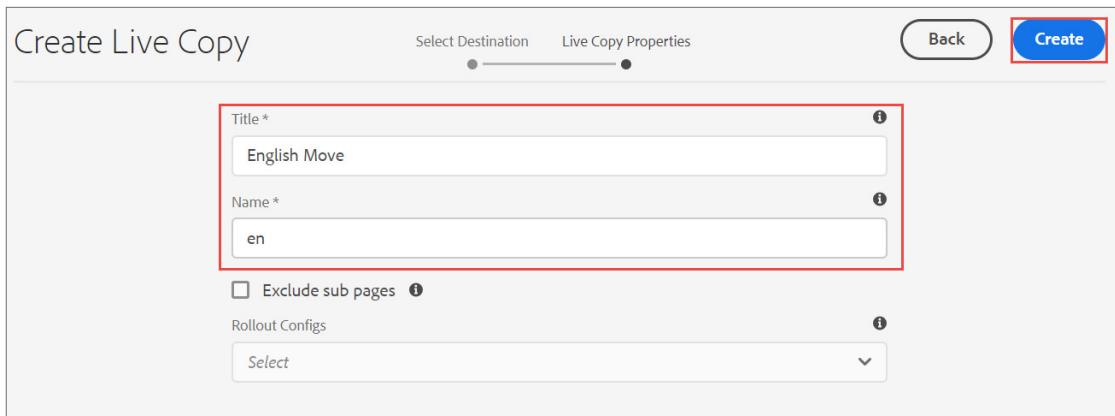
6. Click **WKND Site**, select the **France** page and click **Next**, as shown:

The screenshot shows the 'Create Live Copy' wizard. The title is 'Create Live Copy'. Below it is a 'Select Destination' section with a tree view. The 'WKND Site' node is expanded, showing its children: United States, Canada, Switzerland, Germany, France (which is selected and highlighted with a red box), Spain, and Italy. To the right of the tree view are 'Language Masters', 'United States', 'Canada', 'Switzerland', 'Germany', 'France', 'Spain', and 'Italy'. The 'Next' button at the bottom right is also highlighted with a red box.

The **Live Copy Properties** section in the **Create Live Copy** wizard appears.

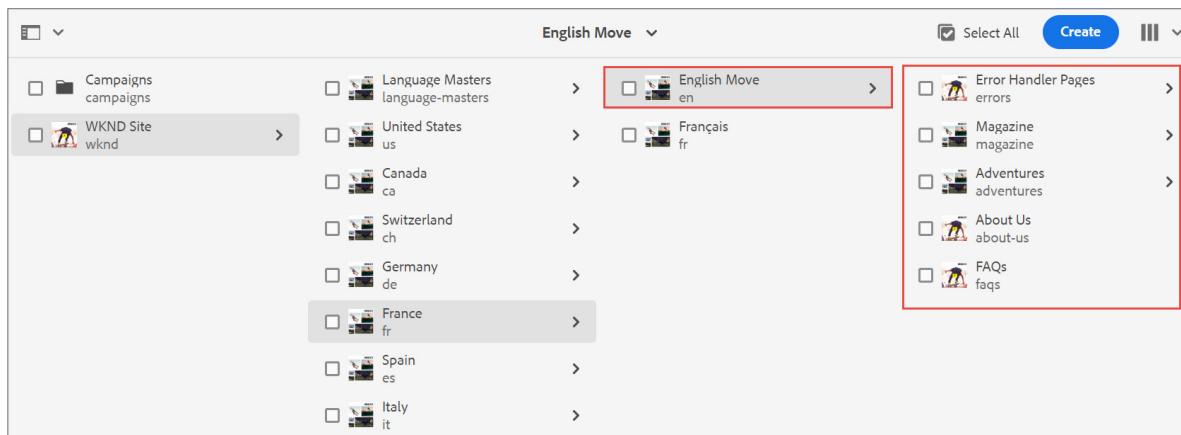
7. Perform the following actions, as shown:

- Type **English Move** in the **Title** box.
- Type **en** in the **Name** box.
- Click **Create**.



The **Live Copy Created** dialog box opens.

- Click **Done**. The **Sites** console opens.
- Navigate through **WKND Site > France** and notice that the **English (en)** live copy with subpages are created, as shown:



Next, you will manually add the Move Page on Rollout option, move the About Us page from the English page to the Adventure page, and then rollout the page move.

10. Navigate through the **WKND Site > Language Masters**, select the **English** page and click **Properties** from the actions bar. The properties page of the **English** page opens.
11. Click the **Blueprint** tab. The options in the **Blueprint** tab appears.

12. From the **Rollout Configs** drop-down menu, select the **Move Page on Rollout** option. The **Move Page on Rollout** is added as shown:

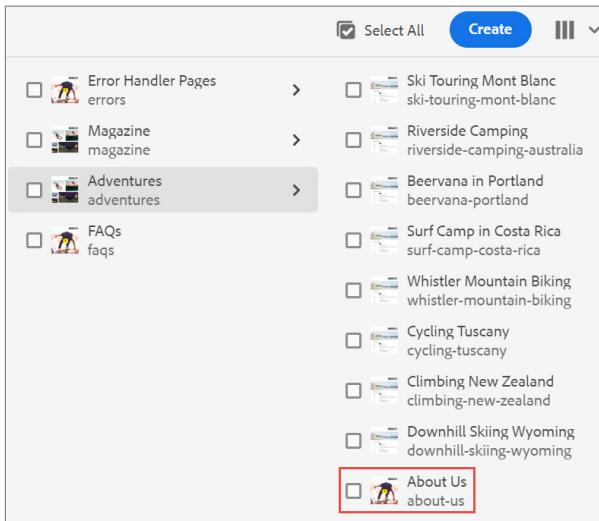
13. Click **Save & Close**. The **Sites** console opens.
14. Navigate through **WKND Site > Language Masters > English**, select the **About Us** page and click **Move** from the actions bar. The **Rename** section of the **Move Page** wizard opens.
15. Retain the details in the **Rename** section as is and click **Next**. The **Select Destination** section of the **Move Page** wizard opens.
16. Navigate through **WKND Site > Language Masters > English**, select the **Adventure** page, and click **Next**, as shown:

The **Adjust / Republish** section in the **Move Page** wizard appears.

17. Clear the selection of the **ADJUST** check box because you are not trying to adjust or publish pages.

18. Click **Move**. The **Move Page** pop-up window appears.

19. Ensure the **Now** option is selected and click **Continue**. The **About Us** page is moved as a subpage of the **Adventure** page, as shown:



 **Note:** If you do not see the **About Us** page as a subpage of the **Adventure** page immediately, you can wait a moment before you refresh the browser.

20. To rollout the changes made to the **English** page, ensure the **WKND Site > Language Masters > English** page is displayed, select the **English** page and click **Properties** from the actions bar. The properties page of the **English** page opens.

21. Click the **Blueprint** tab. The options in the **Blueprint** tab are displayed.

22. Click the **Rollout** button, as shown:

The **Showing 6 Live Copies** page opens.

23. Do not make changes in this step and click **Rollout**, as shown:

| | All | Status | Name | Modified |
|-------------------------------------|-----|---------|-------------------------|----------------------------------|
| <input checked="" type="checkbox"/> | | English | /content/wknd/gb/en_gb1 | 6 hours ago
Scott Reynolds |
| <input checked="" type="checkbox"/> | | English | /content/wknd/ca/en | 41 minutes ago
Scott Reynolds |
| <input checked="" type="checkbox"/> | | null | /content/wknd/es/en | 3 hours ago
Scott Reynolds |
| <input checked="" type="checkbox"/> | | English | /content/wknd/gb/en_gb | 6 hours ago
Scott Reynolds |
| <input checked="" type="checkbox"/> | | null | /content/wknd/fr/en | 3 minutes ago
Scott Reynolds |
| <input checked="" type="checkbox"/> | | English | /content/wknd/us/en | 40 minutes ago
Scott Reynolds |

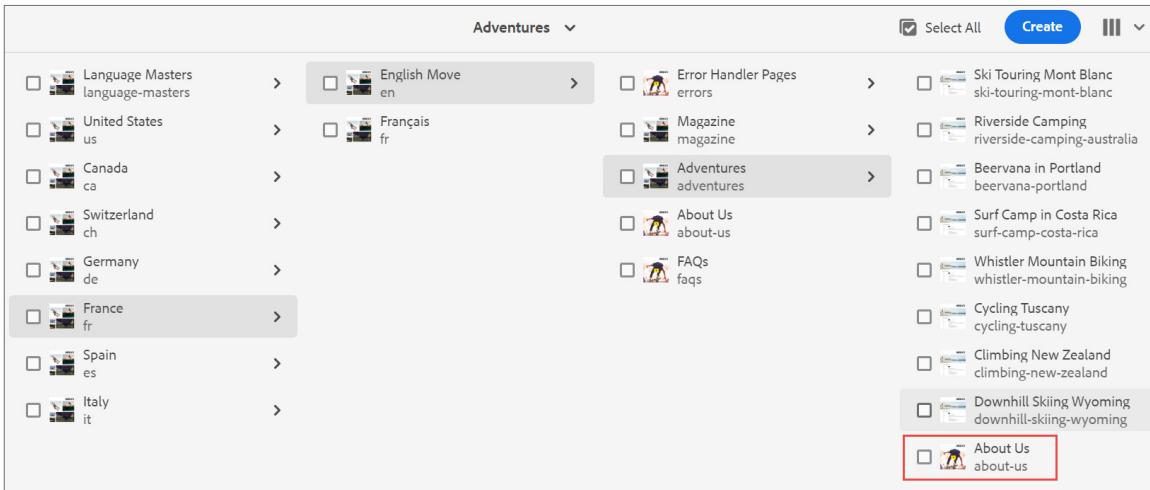
The **Rollout Pages(s)** dialog box appears.

24. Ensure the **Now** option is selected and click **Continue**. A success message appears.

25. Click **Save & Close** button on the **English** properties page. The **Site** console opens.

To verify whether the rollout was successful:

26. Navigate to **WKND Site > France > English Move > Adventures** and notice the **About Us** page is copied to the live copy structure as a result of the **Move** page on rollout config, as shown:



The **PageMoveAction** copies the **About Us** page from the specified location instead of moving it. This action enables you to delete the existing About Us page after you are ready to migrate the page to the new location.

27. (Optional) To delete the **About Us** page under the **Adventures** page, select the **WKND Site > France > English Move > Adventures > About Us** page and click **Delete** from the actions bar. The existing **About Us** page is deleted.

References

- [Extending the Multi Site Manager](#)
- [Configuring Live Copy Synchronization](#)

Module 8

Plan a Global Web Presence

Introduction

Creating or expanding a global web presence can be a complex process, but with good forethought and planning, Adobe Experience Manager (AEM) can simplify your efforts and support your global business goals.

Objectives

After completing this module, you will be able to:

- Analyze the factors to plan a global web presence
- Explain the recommended content structure
- Explain the options for localization service providers
- Describe the scale and complexity observed in real world examples of global websites
- Describe how to implement a global content strategy that accommodates different local requirements

Plan a Global Web Presence: An Overview

You need to plan for a global expansion before implementing your first site. Adapting an existing site for global coverage after implementing the site is harder than planning for global expansion in the beginning.

When planning for a global website, you must:

- Assess the current state of your organization's localization maturity
- Determine whether you have the tools, processes, and resources in place to support the global expansion
- Analyze the global regulations and regional language preferences
- Design flexible content structures and processes that can accommodate a changing global business environment
- Determine a governance model that supports your global business and uses AEM mechanisms such as translation projects, Multi Site Manager (MSM), and user permissions to enforce your chosen model. For example, determine:
 - > Which content will be centrally authored or if the content ownership lays with the business units of the regions or countries
 - > The teams responsible for initiating and managing translations
- Plan, prototype, and test your global structure and processes to ensure that they support the business and have the required support from stakeholders in the geographies.



Note: It is recommended to manage the translation implementation from a central team that can develop necessary tools and processes and build vendor relationships.

Recommended Content Structure

When designing your site structure, examine the site content and determine the following:

- Where and in which language is the content authored?
- How is the content distributed by region and country?
- Which countries share languages and which countries have multiple languages represented?

The recommended site structure is to:

- Place the language content at the top level of your site
- Create language masters
- Use MSM to create a live copy for translation from the global master.
- Create country sites from the translated language masters and roll out content to the sites sharing the same language



Note: A language master is a layer of inactivated pages, where you can review the translated content, modify, and push or pull the content to a country site sharing that language.

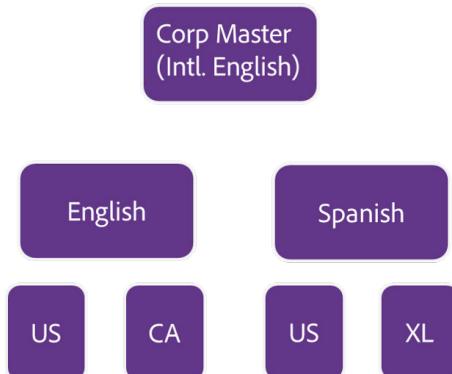


Tip: The recommended best practice is a language-based structure with not more than three levels between the top-level authoring and country sites. For example, you can use English Master/Language Masters/Country sites structure.

The diagram below shows the most common site structures — language first and country or region first:

A common site structure

Language > Country-Region



Example URL:

MyCompany.com/es/us/product1.html

MyCompany.com/es/xl/product1.html

The advantages of using a language first site structure are:

- Optimized for translation efficiency and sharing language content across country websites
- Supports out-of-the-box AEM translation features

You need to use a language or country site naming convention that follows ISO 639-1 language code standard.



Note: Plan, prototype, and test first before starting implementation.

Localization Service Providers

You should be able to automate translation activities of page assets and user-generated content to create and maintain multilingual websites if you do not have the necessary language competency in your organization. Also, if you do not have the capability to do the translation in-house, you must engage a Localization Service Provider (LSP) with expertise in translation and related localization activities.

LSPs:

- Help scale your global business by providing a breadth of resources and technologies to improve efficiency and save translation costs.
- Are both service and technology providers. There are standalone technology providers that enable many translation providers to participate in their translation platforms.



Note: If your translation service provider does not provide a connector to integrate with AEM, AEM supports the manual extraction and re-insertion of translation content in the XML format.

You must choose a translation method that best suits the content. The two types of translation methods are human and machine. You can also use a mixture of both translation methods.

Human translation is best suited for the content where messaging and quality expectations are high and the content persists for some time on the site, such as marketing pages.

Machine translation is a good choice for mass volumes of translation when the time to publish is critical, quality expectations are relaxed, or human translation costs are high. Machine translation also supports the knowledge base and user-generated content.



Note: You can rely on expertise from localization service providers, such as Adobe Consulting and System Integrators, to plan, prototype, and test your multilingual site structure.

The AEM translation framework supports integration with a variety of translation technology providers for both machine and human translations. You can integrate LSP connectors with AEM to automate content translation, or manually create, export, and import translation projects for testing and when there are no translation connectors or translation technology providers.

Adobe.com Website

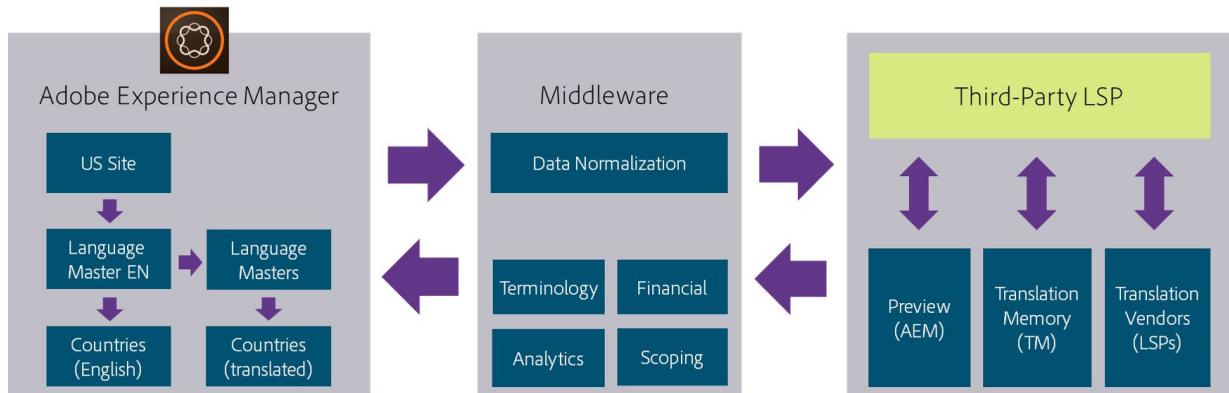
The Adobe.com website has around:

- 16.8 billion-page views
- 31 localized websites in 61 countries
- 10,000 content updates per month

The website has a total of 1.5 million pages of content primarily authored in AEM by the Marketing, Information Technology (IT), and Business Unit (BU) teams spread across the enterprise and the globe.

System Architecture

The architecture of the Adobe.com website includes three main building blocks — AEM, Middleware, and a third-party LSP (in this case, SDL Worldserver), as shown:



AEM

- Uses the U.S. Site and Language Masters as the source for the localized Adobe.com country website
- Uses the configuration of a blueprint to scale the content rollout from language masters
- Uses live copies to roll out translated content to all country sites with the help of MSM

Middleware

- Uses multiple APIs
- Provides web and software sources

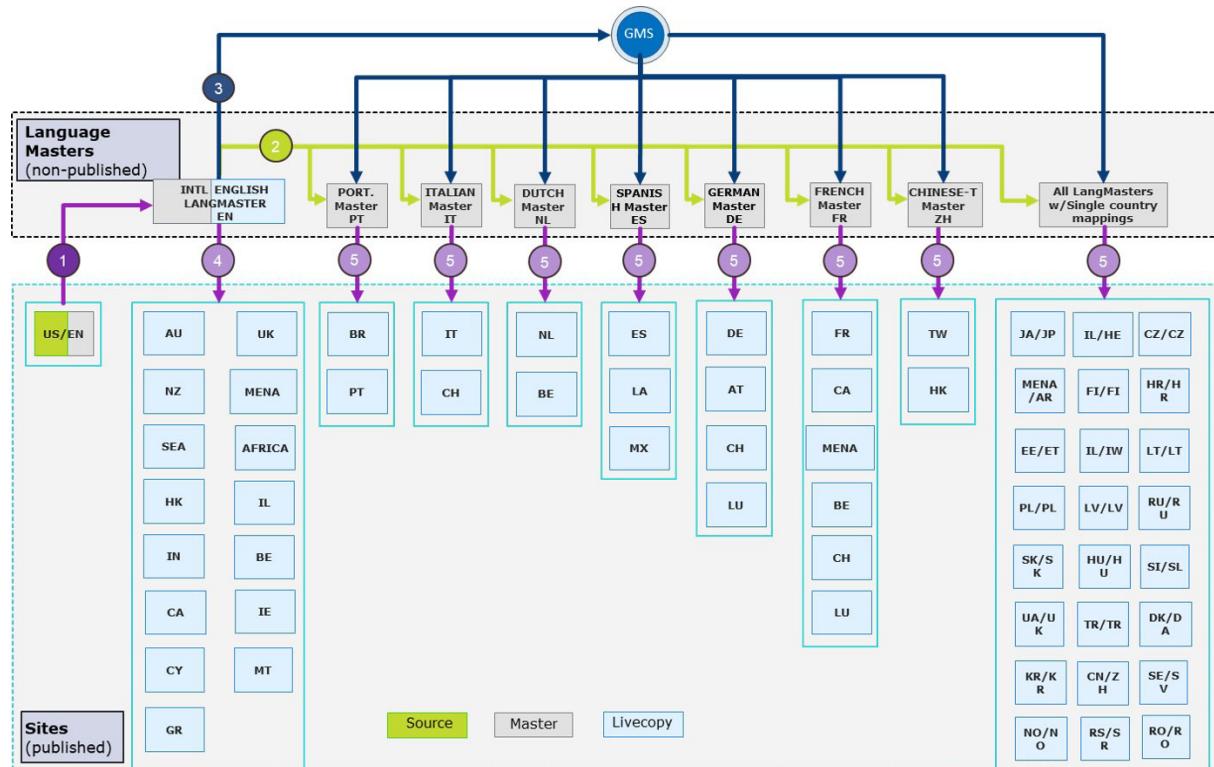
Third-Party LSP

- Uses a globalization platform (SDL Worldserver)
- Generates in-context preview
- Uses translation memory
- Manages vendors

Content Flow

The global blueprint (master content) of the Adobe.com website is in U.S. English. From the global blueprint, the content is copied to the International English master. The translation projects are used to translate the content and the MSM is used to copy content from a language master to the country sites using the same language.

The process used to translate and copy the content from the U.S. English blueprint to the language masters and then to the individual country language sites is described in the below diagram.

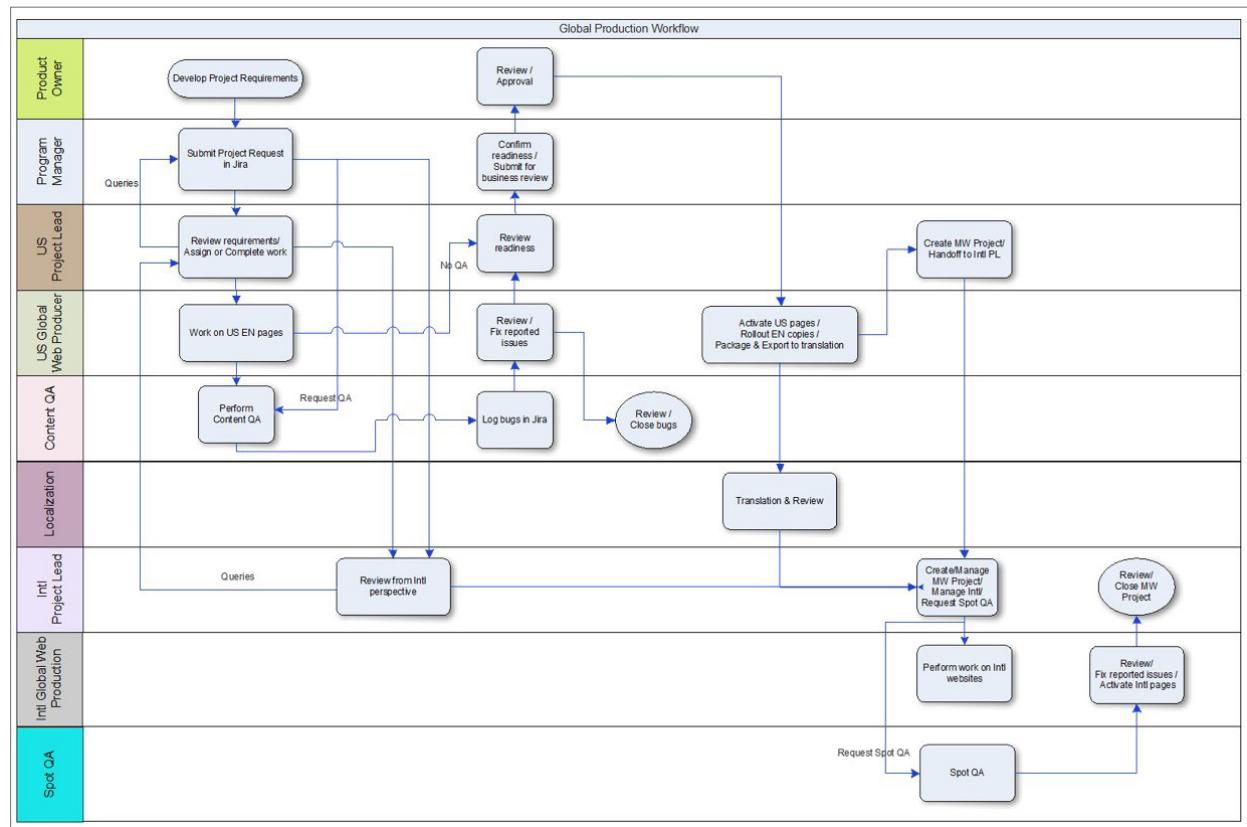


In the above diagram:

1. The MSM rolls out U.S. English language master to the International English language master.
2. The content from the U.S. English master is copied to country-specific language masters.
3. The localization workflows (Translation projects) translate the content, which is imported into the language masters.
4. The MSM rolls out the translated content from the language masters to the same-language country sites as shown in point numbers, 4 and 5.

Production Workflow Process

The following diagram depicts the production workflow process that is used to introduce new content to the Adobe.com website:



Translation Technology and Automation

The translation workflow automation enables you to automate every step to translate content to create and maintain multilingual websites. The Adobe.com website is still translated into major languages by professional translators. However, machine translation is used to translate the global Adobe.com website to language variants within a major language. For example, the international English language master content is translated to British English (highlighted in yellow) by using machine translation, as shown:

The screenshot shows the Adobe After Effects CC product page. At the top, there's a navigation bar with links for 'What's New', 'All Video Tools', 'Learn & Support', 'Free Trial', 'More Products', and a 'Buy now' button. To the left, a circular badge indicates a release date of 'NOV -30- 2015'. The main title 'After Effects CC (2015.1)' is displayed. Below it, several features are listed in a grid format:

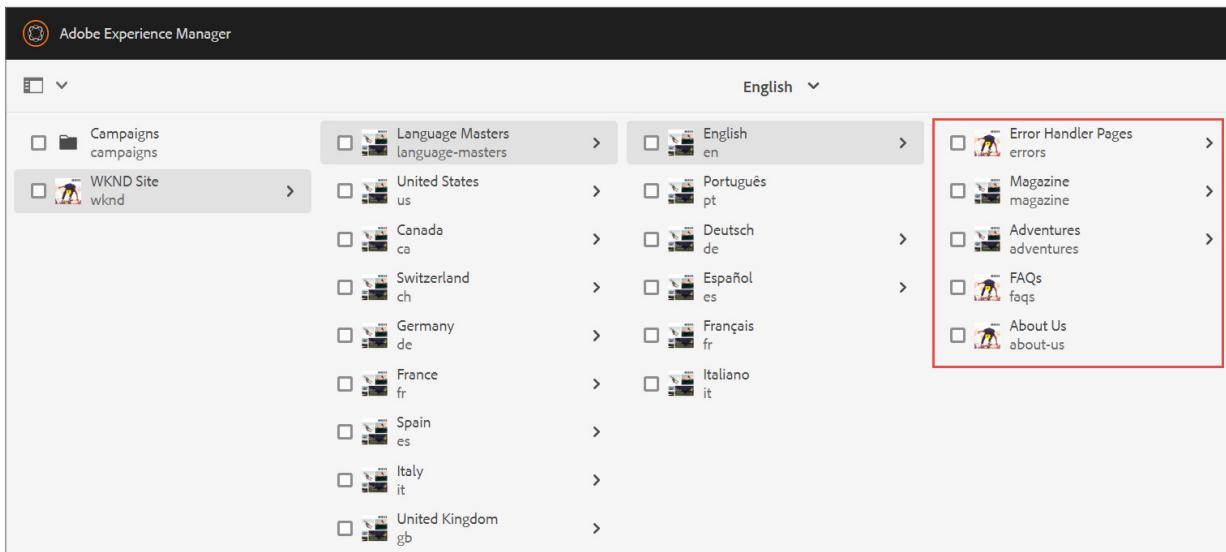
- Optimised for touch and small screens**: Work on your After Effects compositions using multitouch gestures on devices like Microsoft Surface Pro. Choose and activate panels and workspaces, navigate between panels in a group and pan and scroll in viewers for smaller screens. [See how it works >](#)
- New video support in Adobe Stock**: Choose from over one million royalty-free video clips to use in your After Effects projects. Build your compositions with watermarked assets that automatically update when you license them within the Creative Cloud Libraries panel.
- Enhanced colour workflows**: Send Lumetri colour grading effects from Adobe Premiere Pro to After Effects and manage deep colour workflows with profiles for ARRIRAW formats and UHD/HDR.
- Adobe Character Animator (Preview), now with multitouch**: Use your fingers to animate your character's limbs on touch displays and record the movements. The Character Animator interface is now also available in German, Japanese and French. [See how it works >](#)
- Easy asset access from Creative Cloud Libraries**: Drag assets from the Libraries panel directly into the After Effects Composition or Timeline panel. [See how it works >](#)
- Adobe Capture CC integration**: Use an iPad, iPhone or Android phone to turn any image into a production-ready asset. Extract a colour theme or Look or create a shape or vector graphic and
- And so much more**: Also includes: Refined preview behaviours, new preview options and more. [Learn more >](#)

Global and Local Content Strategy

MSM reuses content in several multinational same-language site by defining global content. The global marketing team:

- Drives global content centrally
- Delivers global content through the translation workflow

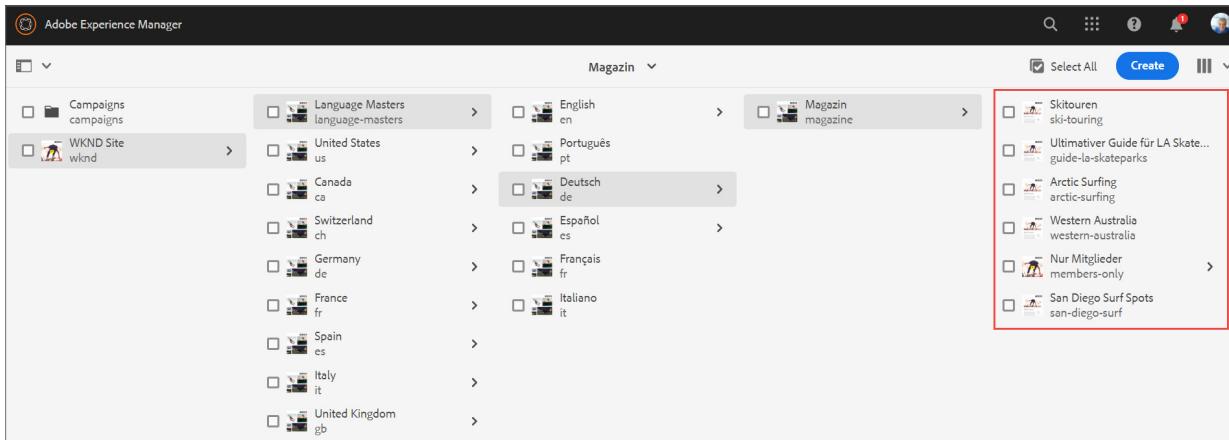
The country content is inherited from language masters. The screenshot below shows an example of the global content in the WKND Site website:



You can create national variations or local content from the core content. The local marketing team:

- Overrides the global content
- De-couples the inheritance from language masters
- Makes local changes to the content
- Preserves the local content

The screenshot below shows an example of the local content in the WKND Site website:



Content Strategy for the Adobe.com Website

When creating the global Adobe.com website, a common framework of templates and components is used to enforce a global branding presence across locations. The common framework helps increase agility and site usability and minimize custom use cases.

After using the common framework, you can manage the publishing process by:

- Distributing the authoring capability across the enterprise
- Controlling the access to pages through groups
- Using the AEM Security model to manage groups