

Headwire.com Inc.

Cloudwords Translation Connector

A user guide for the Cloudwords Translation Service for sites using the Adobe CQ Web Content Management System

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Introduction

This document explains how to setup and use the Cloudwords Translation Wizard for Adobe CQ. Additionally, it explains how the integration has been implemented and can be extended in the future to expand functionality. This functionality allows existing CQ websites to be sent off to the Cloudwords Translation Service to be translated and later integrated into the existing CQ environment.

Technical Requirements

- CQ Instance
- Cloudwords Account

Installation

Installing the Cloudwords integration in CQ is the same as other packages in CQ. Navigate to CQ's welcome screen to begin.

Step 1: Uploading the Installation Package

Select the Packages tool from the Welcome Screen within CQ.

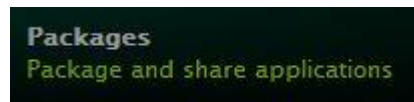


Fig. 1: Package & Application Installation Tool

Click on the “Upload Package” button in the CRX Package Manager.



Fig 2. Package Manager

Browse to the location where the Cloudwords Installation Package is located and click the “OK” button to upload the package.

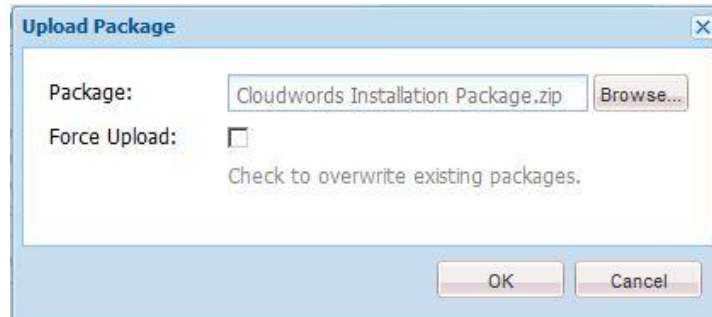


Fig. 3: Upload Package Dialog

Installing the Installation Package

Once the package has been uploaded, it will show in the list of packages available for installation in the CRX Package Manager.

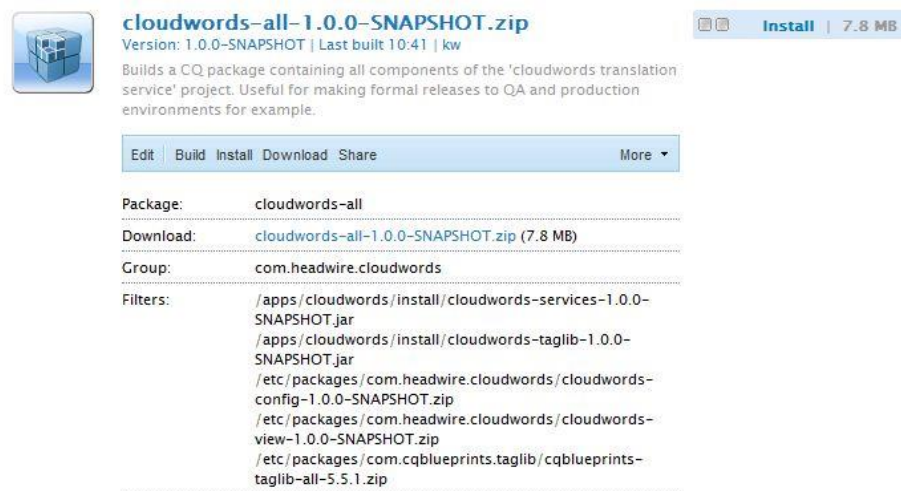


Fig. 4: Uploaded Installation Package

Click the “Installation” link located to the right of the installation package uploaded for the Cloudwords package. The “Install Package” confirmation dialog window will be displayed. There is no need to change any of the advanced settings. Click the “Install” button to install the package.

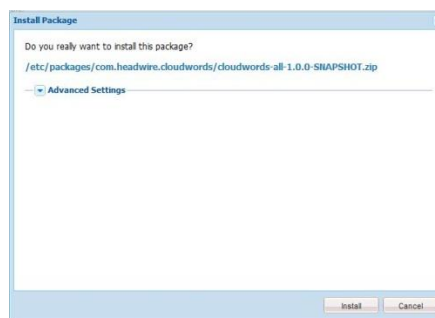


Fig. 5: Installation Dialog

The Activity Log will show the installation progress. Once the installation is complete, the user will be notified by the Activity Log.

The screenshot displays a web-based package management interface. At the top, there's a search bar and buttons for 'Create Package' and 'Upload Package'. The main section features a package card for 'cloudwords-all-1.0.0-SNAPSHOT.zip', which is 7.8 MB and was last installed by 'admin' at 15:24. The card includes a description: 'Builds a CQ package containing all components of the 'cloudwords translation service' project. Useful for making formal releases to QA and production environments for example.' Below the description are buttons for 'Edit', 'Build', 'Reinstall', 'Download', 'Share', and a 'More' dropdown. A table below the buttons lists package details: Package (cloudwords-all), Download (cloudwords-all-1.0.0-SNAPSHOT.zip (7.8 MB)), Group (com.headwire.cloudwords), and Filters (a list of file paths including jars, config, and zip files). At the bottom, the 'Activity Log' section shows a series of log entries, including file paths, version commitments, and a final message: 'Package installed in 2821ms.'

Fig. 6: Installation Progress

Once the package has been installed, navigate to the <http://localhost:4502/etc/cloudwords/translationselector.html> to access the wizard.

Cloudwords Bundle Configuration

Once the Cloudwords Translation Connector tool has been installed, it will need to be configured in order to be associated with the Cloudwords user account. It can be configured in one of two ways. The first is handled via the Adobe CQ5 Web Console Bundles.

Cloudwords Translation Connector tool Configuration - Bundle Configuration

Navigate to the Adobe CQ5 Web Console Bundles UI by directing your browser to the following address: <http://localhost:4502/system/console/bundles>.

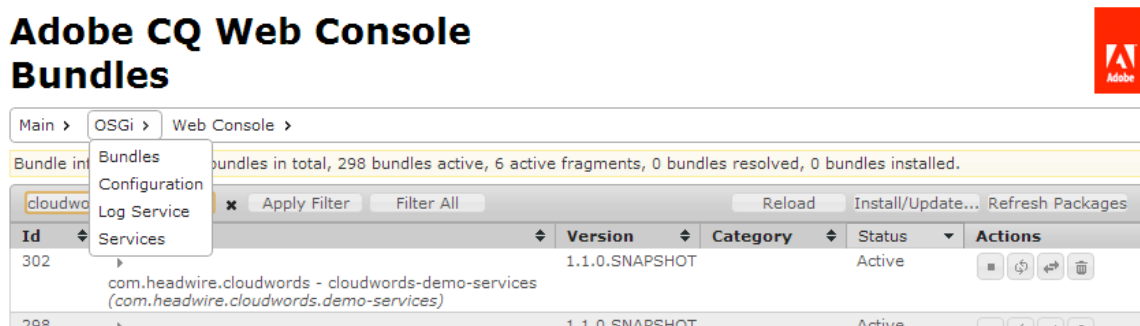


Fig. 7: Adobe CQ5 Web Console Bundles

Select the “Configuration” button in the top left portion of the page. Scroll to the “Cloudwords Service Implementation” bundle and click on it. The individual configurations are listed in ascending order alphabetically by default. The following dialog will be displayed.

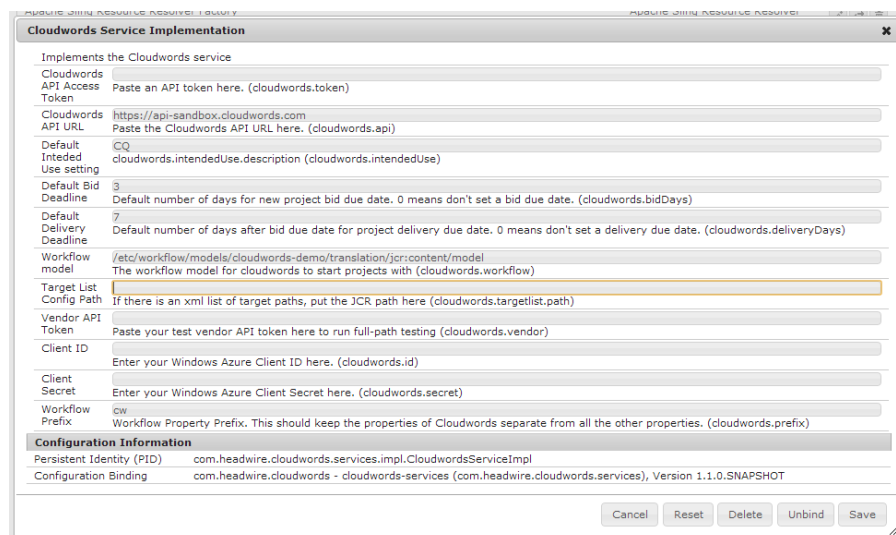


Fig. 8: Cloudwords Service Implementation Configuration Settings

Enter in the desired properties for the Cloudwords Service Implementation. A table of properties and their default values is listed on the next page.

The second configuration option is handled in CRXDE Lite.

Two .config files are used to handle the configuration of the Cloudwords Translation Connector Tool's OSGi bundle, one each for the two service implementations used: the Cloudwords Polling Service and the Cloudwords Service Implementation.

Cloudwords Translation Connector tool Configuration- Config File

Navigate to the folder containing the configuration files located in the following location:
/apps/cloudwords/config.

From here the config files can be edited within CRXDE Lite. The syntax used for the properties is the following: [property.name]=[property_value]". Property names are separated by a period if multiple names are needed. Each property name resides on its own line in the file.

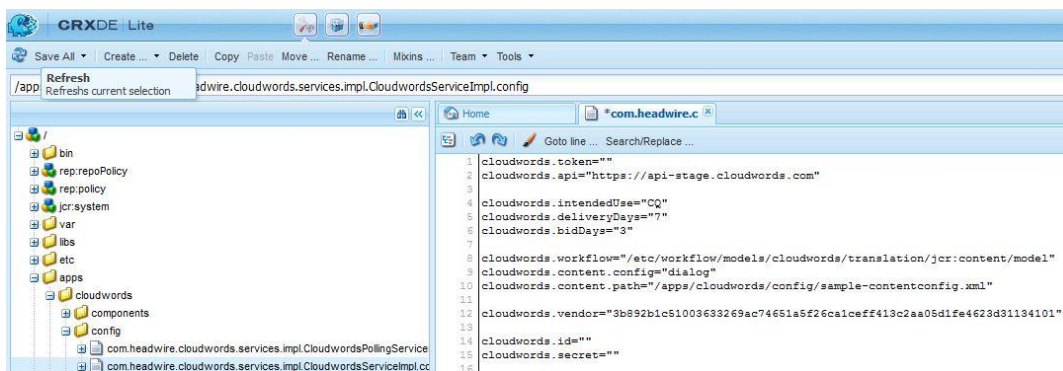


Fig. 9: com.headwire.cloudwords.service.impl.CloudwordsServiceImpl.config

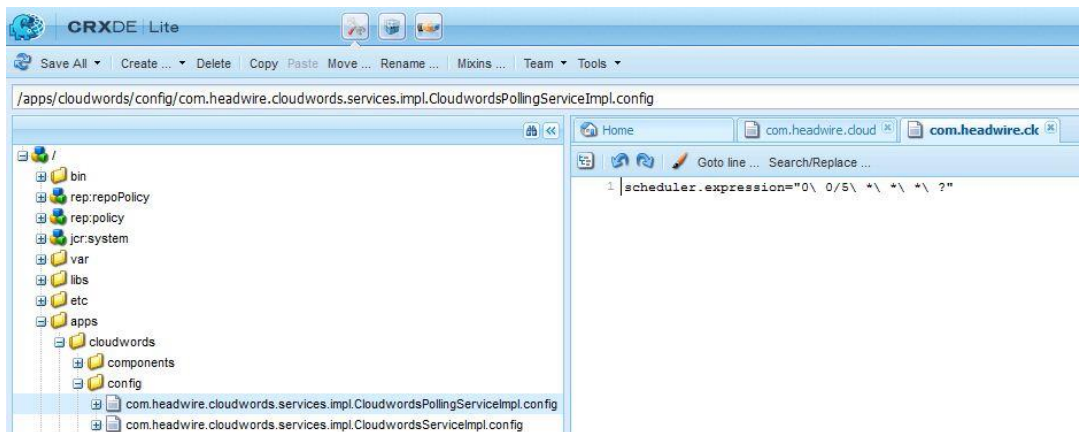


Fig. 10: com.headwire.cloudwords.service.impl.CloudwordsPollingService.config

A table containing the required property names and values can be found on the next page.

Cloudwords Service Implementation Configuration Options

Property Name	Property Function	Default Value
Cloudwords API Access Token	Access token generated by Cloudwords used to access a Cloudwords account. Instructions for accessing this token can be found in the “Cloudwords API Access Token” section of this document.	N/A
Cloudwords API URL	Cloudwords URL used for translation	https://api-sandbox.cloudwords.com
Default Intended Use Setting	Default value for the “Intended Use” setting within a Cloudwords translation project.	CQ
Default Bid Deadline	Default number of days for new project bid due date. Zero means don’t set a bid due date.	3
Default Delivery Deadline	Default number of days after bid due date for project delivery due date. Zero means don’t set a delivery due date.	7
Workflow Model	The workflow model for Cloudwords to start projects with.	/etc/workflow/models/Cloudwords/translation/jcr:content/model
Target List Config Path	The target list allows you to specify an xml file with a list of content paths and their language. This must be an absolute JCR path to the target list xml.	N/A
Vendor API Token	Access token generated by a Cloudwords Vendor account to be used with the Microsoft Azure translator to run full-path testing.	N/A
Client ID	The ID of the application used in the Microsoft Azure account which utilizes Microsoft’s translator	N/A
Client Secret	Access token generated by Microsoft Translator.	N/A
Workflow Prefix	This defines a prefix for all Cloudwords workflow properties. In normal use, this shouldn’t need to be changed.	cw

Cloudwords Polling Service Configuration

The Cloudwords Polling Service is used to check and retrieve updates regarding the status of translation projects. This service has the following properties outlined below.

Property Name	Property Function	Default Value
Scheduler Expression	Cron style scheduling expression for the Cloudwords Polling Service. More information about Cron style scheduling expressions can be found in the “Additional References” section of this document.	0 0/5 * * * ? <i>Note: This default expression will configure the Polling Service to run every 5 minutes.</i>

Cloudwords Content Configuration Service Configuration

The Cloudwords Content Configuration Service is used to define how text on CQ pages is exported to Cloudwords.

Property Name	Property Function	Default Value
Content Configuration Setting	Setting used to tell the Cloudwords Translation Connector tool what content to pull for translation from components on pages. The ‘dialog’ setting will pull content that populates the form fields within various components on pages. The ‘xml’ setting will use a static xml listing that pulls what data is to be included for translation. A custom type can also be implemented. See the “Technical Specification” of the document for further information about the custom implementation.	dialog
Content Config Path	If the ‘xml’ setting is used for the Content Configuration Setting, the path of the xml file must be provided here. This path must be an absolute JCR path.	N/A

Cloudwords API Access Token

The Cloudwords API Access Token is used by the Cloudwords Translation Connector Tool to access the Cloudwords account used for facilitating page translations. The token can be retrieved by following the following steps.

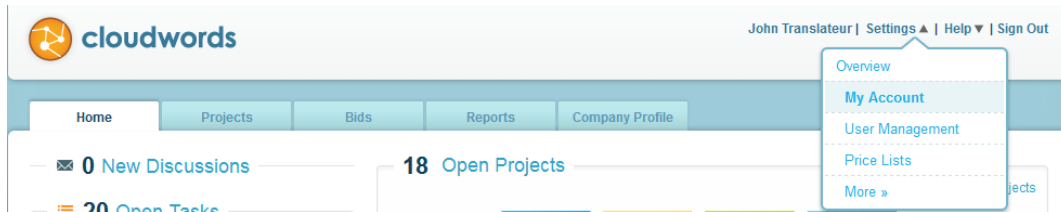


Fig. 11: Cloudwords Account Landing Page

From the Cloudwords Landing page of the Cloudwords account to be associated with the Cloudwords Translation Connector tool click on the “Settings” option located in the upper right-hand corner of the page. Choose, the “My Account” option from the list of setting options available.

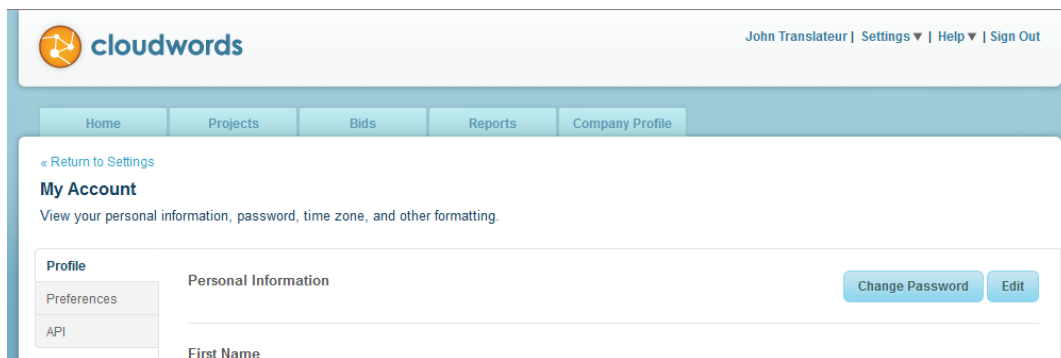


Fig. 12: My Account Page

From the “My Account” page select the “API” option in the left hand navigation options.

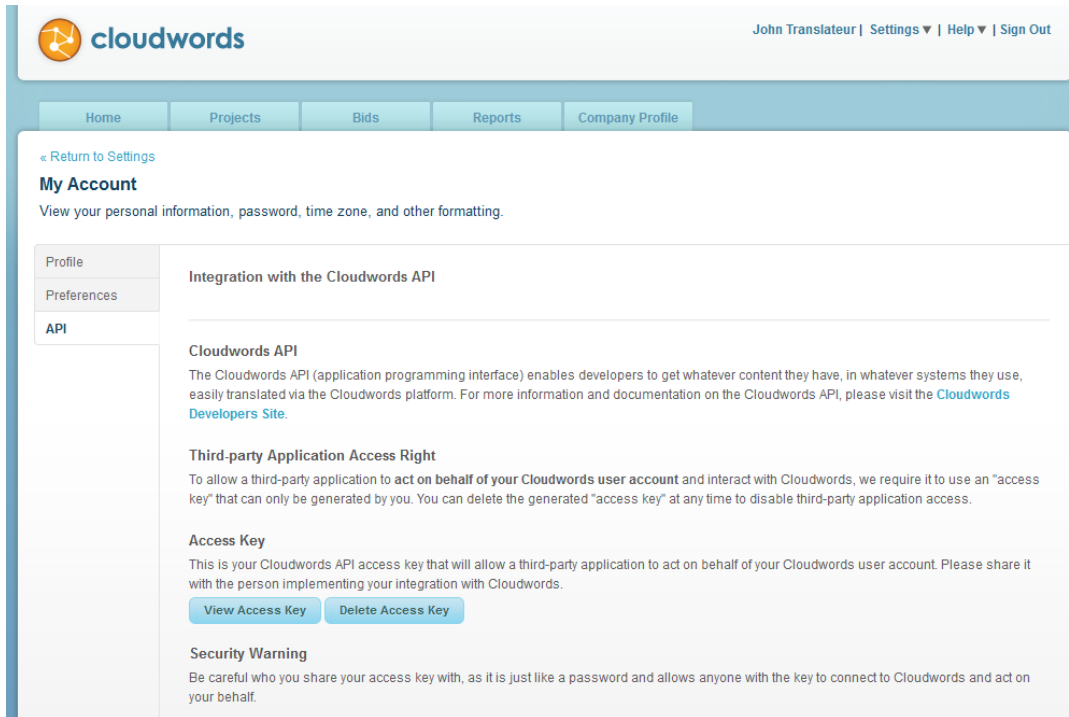


Fig. 13: API Page

From the “API” page select the “View Access Key” button. Cloudwords will then ask you to verify your account by requesting you enter the password associated with the account. Once the security check has been completed, the access key will be displayed to you. Simply copy and paste this key to the “Cloudwords API Access Token” setting within the Cloudwords Translation Connector tool configuration.

Deleting Cloudwords API Access Token

The “API” page associated with the Cloudwords account can also be used to delete a previously generated access key. In order to delete this key, simply click the “Delete Access Key” button located in the figure above. Cloudwords will then ask you to verify your account by requesting you enter the password associated with the account. Once the security check has been completed, the access key will be deleted.

Website Translation

Step 1: Opening the Cloudwords Wizard

Please note: The location of the translated content will need to be established before beginning this wizard.

Open your browser, and go to <http://localhost:4502/etc/cloudwords/translationselector.html>

The Cloudwords Wizard will guide you through the steps necessary to begin translation.

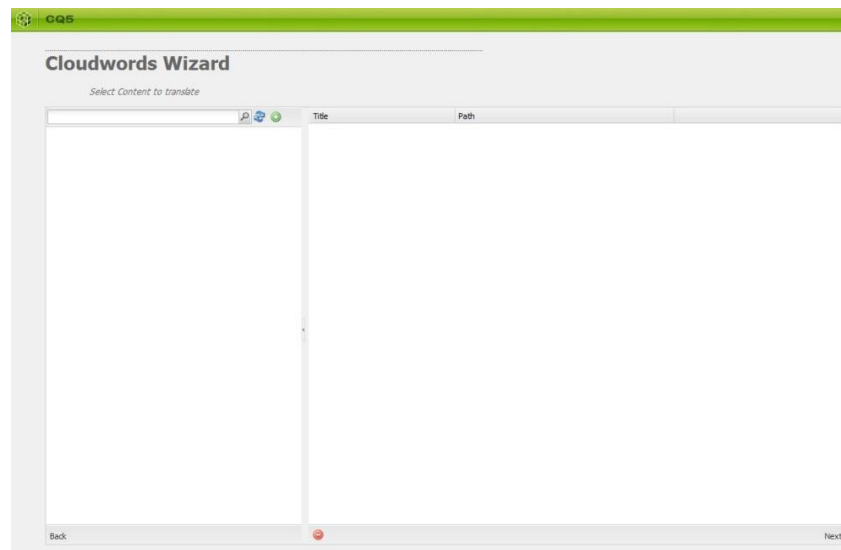


Fig. 1: Cloudwords Wizard Landing Page

Step 1: Selecting the Root Content

Please note: The location of the translated content will need to be established before beginning this wizard.

The Cloudwords Wizard will guide you through the steps necessary to begin translation. Select the desired root content to be translated. This can be accomplished by clicking on the magnifying glass next to the path field located in the upper left hand corner of the page.

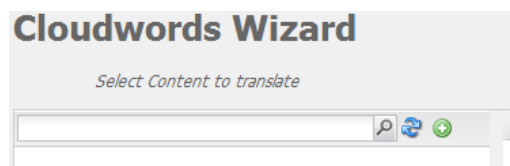


Fig. 2: Click the magnifying glass to open the Select Path window.

Next, navigate to the desired content's location in the "Select Path" dialog. Once the desired location has been selected, click the "OK" button.

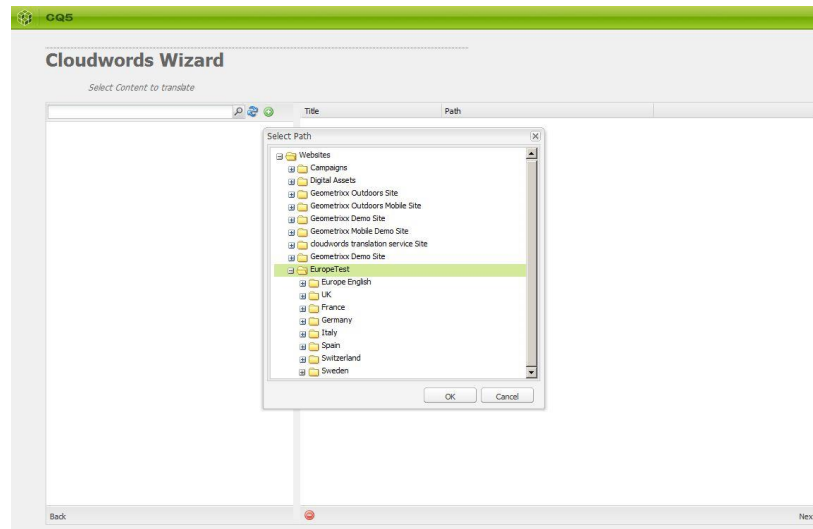


Fig. 3: Translation Selection Dialog

Next, use the tree view on the left side of the wizard and navigate to the page that will be translated. Press the green plus button to add the selected page to the list on the right side panel. On the next page of the wizard, the user has the option to select whether the subpages of any selected page should be translated or not. Keep in mind, that if not all subpages of a particular page are desired to be translated, then each individual child page will need to be added to the translation list separately.

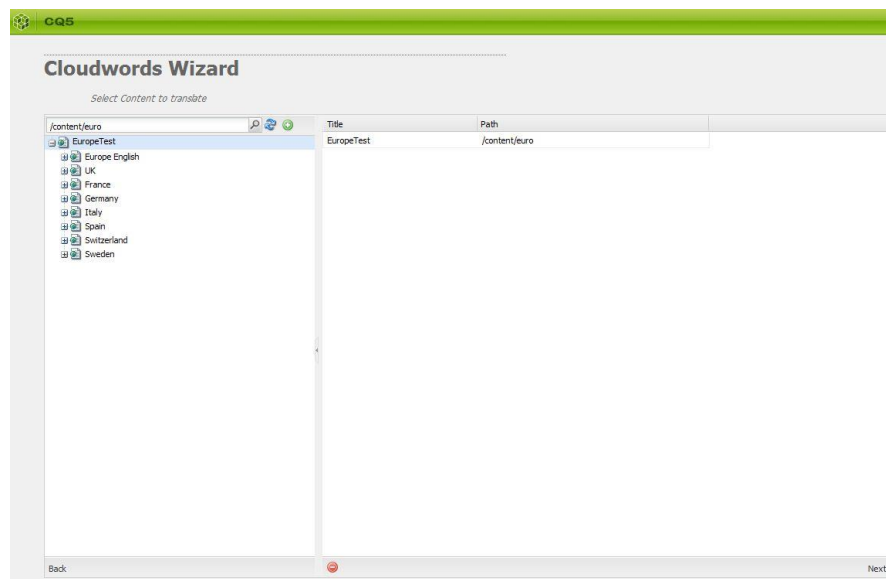
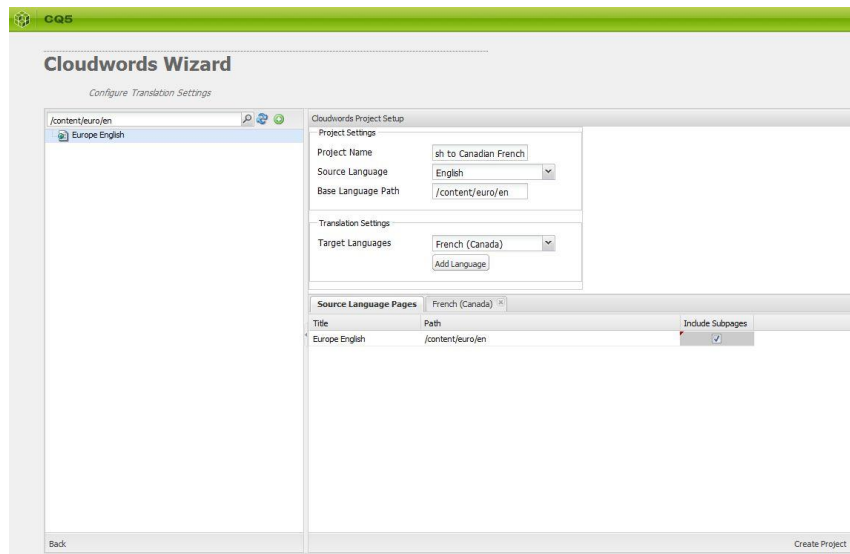


Fig. 4: Translation Page Selection

Step 3: Configure Translation Settings

The next step is to configure the translation settings. The following form is used to create the settings for the translation that will be sent to Cloudwords.



The screenshot shows the 'Cloudwords Wizard' interface with the 'Configure Translation Settings' step selected. The form is divided into several sections:

- Project Settings:** Includes fields for 'Project Name' (set to 'sh to Canadian French'), 'Source Language' (set to 'English'), and 'Base Language Path' (set to '/content/euro/en').
- Translation Settings:** Includes a 'Target Languages' dropdown menu (set to 'French (Canada)') and an 'Add Language' button.
- Source Language Pages:** A table with columns 'Title', 'Path', and 'Include Subpages'. It lists 'Europe English' with path '/content/euro/en' and a checked 'Include Subpages' checkbox.

Navigation buttons 'Back' and 'Create Project' are located at the bottom of the form.

Fig. 5: Translation Settings

The center portion of this form is used to set project properties that will be used by Cloudwords. The “Project Name” property will be used as the name of the translation project in Cloudwords. The “Source Language” is the language the page is currently in and will be translated from; the “Target Language” is the desired language to be translated to. The “Base Language Path” is the top language level page for the source content. The Source Language and Base Language Path should be automatically filled in for you.

The bottom portion of the form contains the list of source language pages you selected on the previous page. For each page, you may choose to also include its child pages in the translation project by checking the box in the “Include Subpages?” column.

First we must select a target language. Use the Target Language drop-down to choose a language, and click the Add Language button to add it to the tabs at the bottom section of the screen. Multiple languages can be configured for the same page within the same project. Simply select the desired from location from the “Target Language” drop down list and click the “Add Language” button to add the language to the project. A new tab will appear with the name of the language. The language path should auto-populate. If the path wasn’t detected, press the magnifying glass on the top of the left side panel to navigate to your content pages. Select the top level page for the target language. (Your live copies must have already been rolled out at this point.)

Example: Let's assume you want to translate the page /content/cloudwordsDemo/en/home/products.html, and we want the translation to be applied to /content/cloudwordsDemo/fr/home/products.html. The base language should be auto-populated to /content/cloudwordsDemo/en (since the "en" page is the root of all English language pages). The target language tab for French should have the path /content/cloudwordsDemo/fr (since the "fr" page is the root of all French language pages). This way when the Cloudwords integration gets a French translation for one of the selected English language pages, it knows where to find the corresponding French language page to apply the translation to.

Cloudwords Wizard
Configure Translation Settings

Cloudwords Project Setup

Project Settings

Project Name: Cloudwords Demo Pro

Source Language: English

Base Language Path: /content/cloudwordst

Translation Settings

Target Languages: French

Add Language

Source Language Pages French

Title	Path
Français	/content/cloudwordsDemo/fr

Back Create Project

Fig. 6: The target language tab for French

Once the desired settings have been applied to the translation project, click the “Create Project” button to prepare the translation package. The system will then display a confirmation page confirming the settings applied on the previous page.

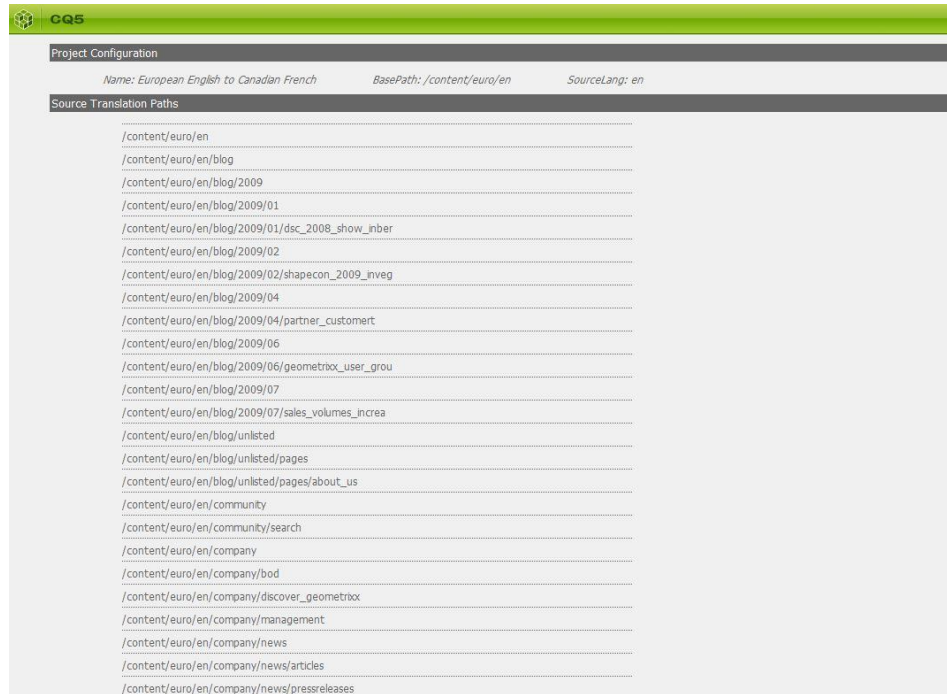


Fig. 7: Translation Settings Confirmation

After the project has been confirmed the CQ Workflow will page will be opened. A CQ workflow has been created for the translation.

Cloudwords Translation Connector Tool CQ Workflow

The first step of the workflow has been titled “Create Project” and will typically finish before the inbox is fully loaded. This step creates the project in Cloudwords. After project creation the workflow moves onto the “Send Source” step, which exports the content to be translated into XLIFF files, combines them into a zip file, and uploads it to Cloudwords. For large translation projects, this step can often take up to a minute or more. Use the refresh button if the project doesn’t show up in the workflow.

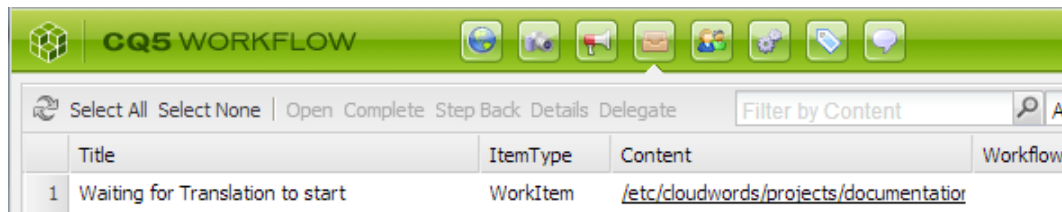


Fig. 8: Translation Workflow

The content has been successfully committed to Cloudwords for translation. The Cloudwords Translation Connector tool will automatically update the workflow status as the various steps are executed during the translation process. The workflow steps are outlined below:

The “Waiting for Translation to start” step is when a bid has been accepted for translation and the content is currently being translated.

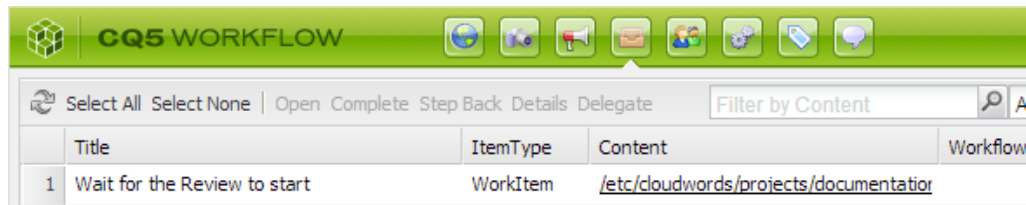


Fig. 9: The workflow during translation

The “Wait for the Review to start” step indicates that the translation has been completed and is ready for import but has yet to be incorporated into CQ.



Fig. 10: The workflow after importing

The “Wait for the Review to end” step signifies that the content has been imported into CQ and needs to be reviewed.

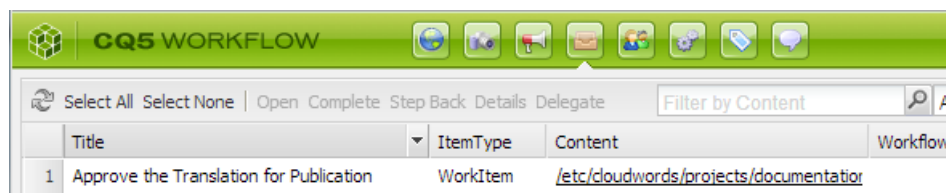


Fig. 11: The workflow after review

The “Approve the Translation for Publication” step appears after the Translation has been approved. In a production system, this step should be set up to begin the desired publication workflow.

Cloudwords Translation Process

After Submitting Content for Translation

Once the content to be translated has been sent off by CQ, a project will be created within Cloudwords to manage the process. Since Cloudwords facilitates the exchange of translated content, it is necessary for the project to be tracked within Cloudwords. After logging into the Cloudwords account that received the translation request, you will see the newly create project in the “Activity Log” on the “Home” tab of the Cloudwords account.



Fig. 12: Newly submitted translation project

Clicking on the project name within the Activity Feed will allow you to further customize the translation project, if needed.

A screenshot of the 'Create Your New Project' form. The form is divided into two columns. The left column contains fields for 'What do you want to call this project?' (with 'French Geometrix' entered), 'Notes and instructions to vendors (Optional)', and a 'Project description (Optional)' section. The right column contains fields for 'Deadline for receiving quotes' (4/8/13), 'First translation deadline' (4/15/13), 'What is the intended use of this project?' (a dropdown menu), 'Purchase Order Number (Optional)', 'What is your source language?' (English), and 'What are your target languages?' (French (France) selected). A 'Next' button is at the bottom right. Links for 'Cancel Project' and 'Save and Exit' are at the top right.

Fig. 13: Project Settings

Fill out the project’s purpose by selecting from the list of available options from the dropdown list and click the “Next” button continue.

Source Materials for French Geometrixx

[Cancel Project](#) | [Save and Exit](#)

Upload the files you need translated or that will help your project get completed. You can only upload .zip file but you can zip-up any file type. [Learn more.](#)

Source Material ?

What do you want translated? You can upload one .zip file.

File Name	Date	Action
cloudwordsTranslation299770889303862178.zip ?	4/1/13	Replace Download

► Project Reference Materials (Optional) ?

► Company Reference Materials ?

« Back

Next »

Fig. 14: Translation Source Materials

The source material has been exported by CQ and submitted to Cloudwords. Additional reference material can be added to the project on this screen. Once finished, click “Next” to continue.

Workflow for French Geometrixx

[Cancel Project](#) | [Save and Exit](#)

Set Up Review Deadlines

☒ Use one review due date for all languages

Review Deadline (Optional) ?

4/1/13

☐ Let me set review due dates for each language

« Back

Next »

Fig. 15: Review Deadline

The “Setup Review Deadlines” page can be used to configure different review dates for multiple languages included in a particular project. By default, the review due date is used.

Bid Options for French Geometrix

[Cancel Project](#) | [Save and Exit](#)

Who do you want to request quotes from for this project?

1. Select up to 5 of your preferred vendors (click on a vendor to select or deselect)



2. Include vendors chosen by Cloudwords? [?](#)

☐ Let Cloudwords choose 4 other vendors for me.

Your request will be sent to:

Headwire - Vendor

[« Back](#)

[Finish and Request Bids »](#)

Fig. 16: Vendor Selection

Select the preferred vendors desired for the translation. Previous vendors used will be showcased in the preferred vendors section. If a previous vendor is not desired for the submitted translation, select the second option to have Cloudwords chose vendors to use for translation.

Project French Geometrix Submitted

All you have to do now is wait for the bids to return from the vendors and choose the winner. We will notify you when bids have arrived.

Now what?

You can review and edit this project by visiting your [Project Page](#).

Add project dates to your calendar

Bid Due Date

 4/8/13 5:00:00 PM PDT

Bid Selection Deadline

 4/10/13 11:00:00 AM PDT

First Translation Deadline

 4/15/13 5:00:00 PM PDT

Review Deadline

None

You can also go to your Cloudwords [Home Page](#) to continue working on other projects or activities.

[View your project](#)

Fig. 17: Submission Completion

The above screen is displayed once the project has been submitted for translation.

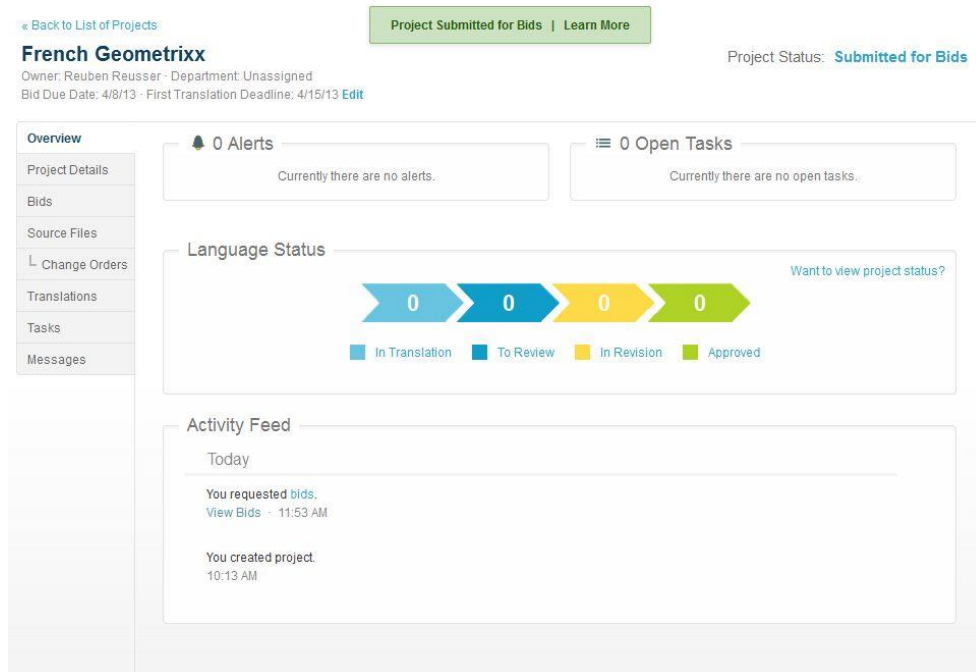


Fig. 18: Project Information Page

Information regarding this project's translation will be displayed here. *Note: Project status will be displayed in the upper right hand portion of this page.*

Accepting Translation Bid

After the translation request has been submitted to Cloudwords various vendors will respond to the request by submitting bids to complete the translation work. When all bids are received for various projects they will be displayed in the Activity Feed within the Cloudwords account.

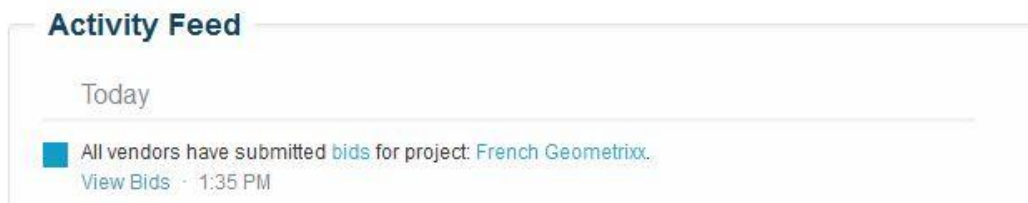


Fig. 19: Bid Submission

Click on the project name link to display the bid information.

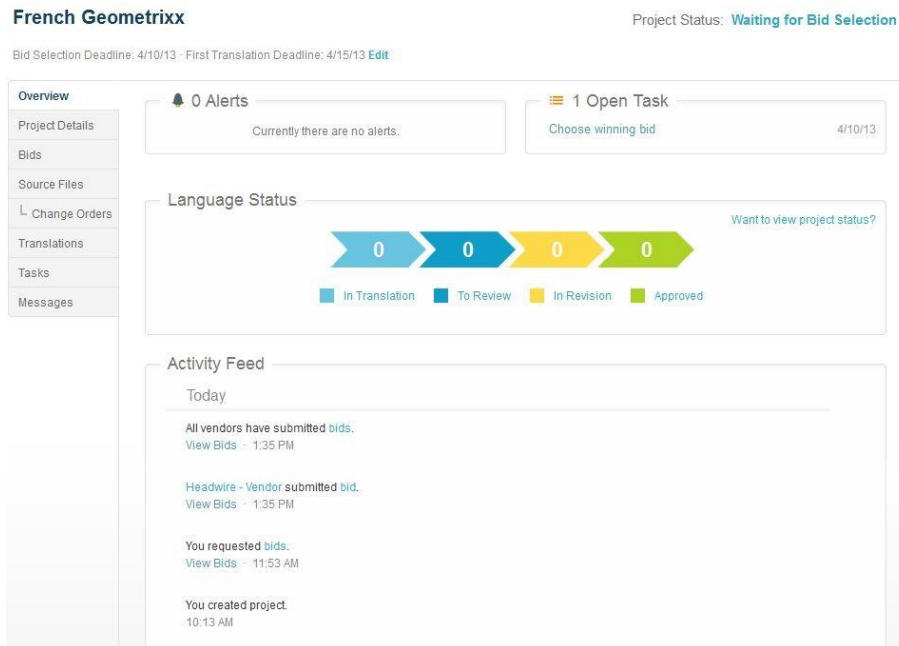


Fig. 20: Bid Selection

Click on the “Choose winning bid” link in the Open Task section of the project information page.

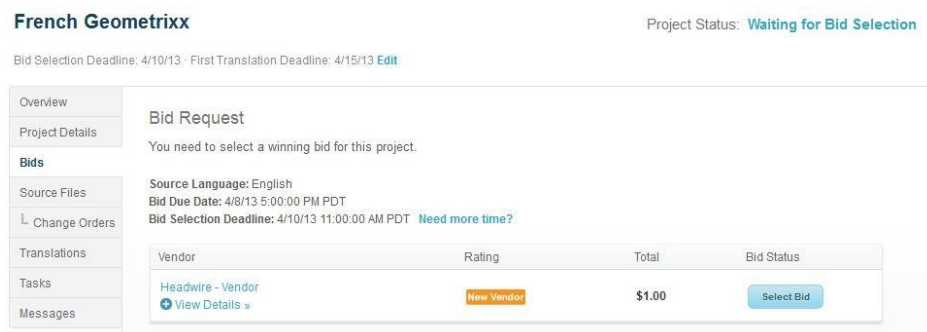


Fig. 21: Bid Request

Select the desired bid for the project by clicking its respective “Select Bid” button.

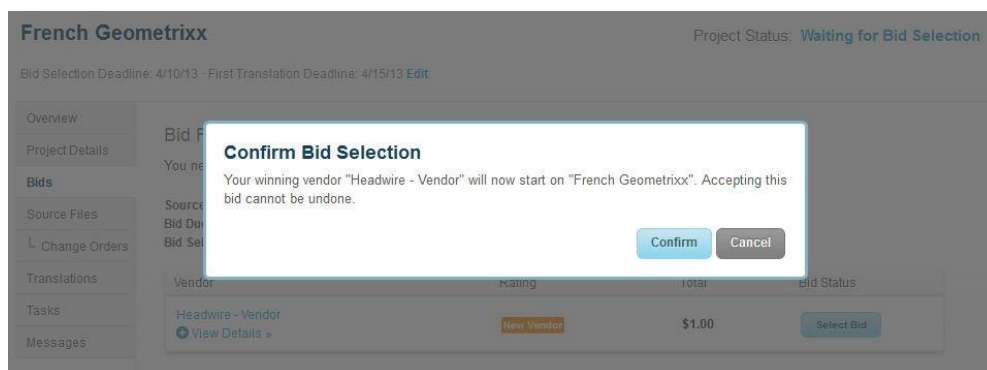


Fig 22: Bid Selection Confirmation

Confirm the bid selection by clicking the “Confirm” button from the “Confirm Bid Selection” dialog box.

« Back to List of Projects

Project Vendor Selected | Learn More

French Geometrix
Owner: Reuben Reusser · Department: Unassigned
First Translation Deadline: 4/15/13 [Edit](#)

Project Status: **In Translation**

Overview
Project Details
Bids
Source Files
Change Orders
Translations
Tasks
Messages

Bid Request
Your project is underway.
Source Language: English

Vendor	Rating	Total	Bid Status
Headwire - Vendor View Details »	New Vendor	\$1.00	Selected

Fig. 23: Vendor Selection Confirmation

The project has now been approved to be translated by the selected vendor. The project is now in the process of being translated.

Incorporated Translated Material

Once the vendor has submitted the translation, it will be made available in the Activity Feed of the Cloudwords account.

Activity Feed

Today

Headwire - Vendor delivered the translated material for French (France) on project: French Geometrix.
[View deliverables](#) · 3:07 PM

Fig. 24: Translation Submission Notification

Click on the project name link to display the project status page.

French Geometrix
First Translation Deadline: 4/15/13 [Edit](#)

Project Status: **In Review**

Overview
Project Details
Bids
Source Files
Change Orders
Translations
Tasks
Messages

0 Alerts
Currently there are no alerts.

1 Open Task
Review Initial Translation: (French (France)) **Due Today**

Language Status
0 1 0 0
In Translation To Review In Revision Approved
Want to view project status?

Activity Feed
Today
 Headwire - Vendor delivered the translated material for French (France).
[View deliverables](#) · 3:07 PM

Fig. 25: Translation Review

Click on the “Review Initial Translation” link to review the submitted translation.

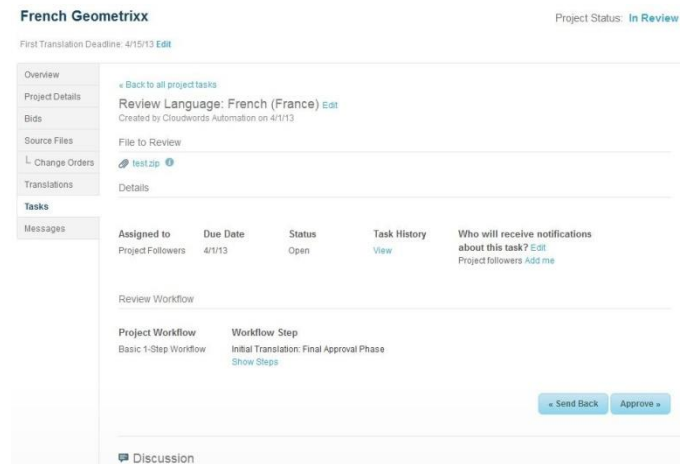


Fig. 26: Translation Review

Review the translated content submitted by the chosen vendor. From this page the translation can be approved or sent back depending on the translated content that was submitted by the vendor. A discussion about the content can also begin on this page by providing comments in the discussion section. If the submitted content is acceptable, click the “Approve” button to accept the translated content. Confirm the approval by selecting the “Approve” button one more time in the “Approve Translations” dialog window.

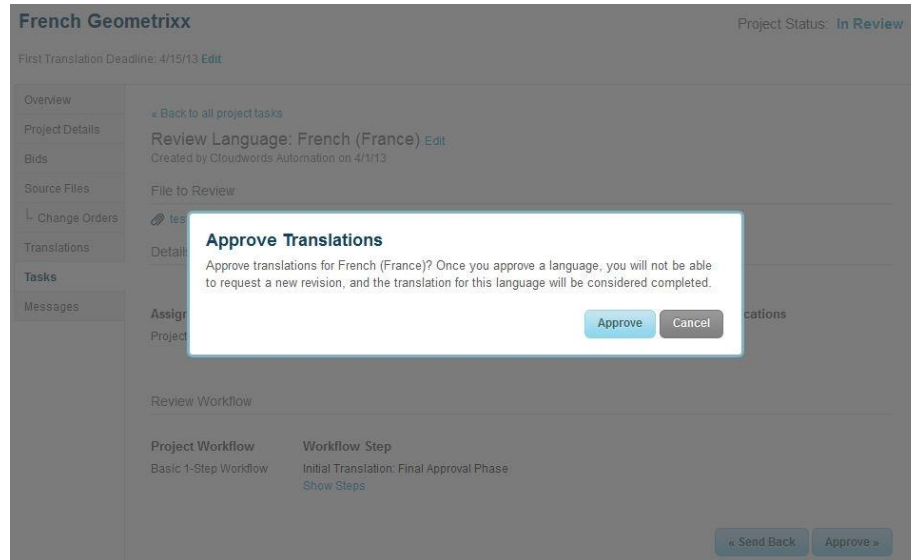


Fig. 27: Translation Approval Dialog Window

LiveCopy Site Configuration

Within CQ5, the Multi Site Manager (MSM) tool allows the author to define relations between sites. This functionality is extensively utilized by the Cloudwords Translations Connector tool. When content is changed from the blueprint, the inherited content by the child page will automatically be updated. When this update occurs, each change will need to be translated in each of the target languages. The following diagram conceptualizes Adobe's solution for configuring a system of LiveCopy pages to facilitate the language hierarchy translation.

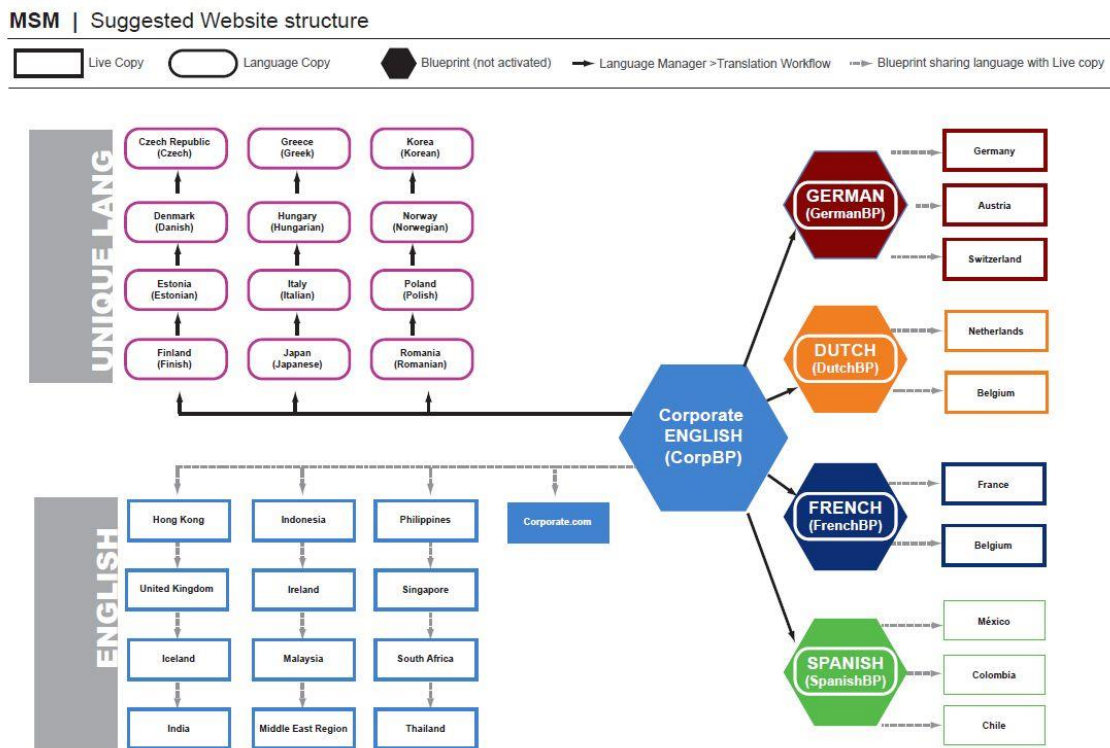


Fig 23. Adobe's Suggested MSM Structure

LiveCopy Cloudwords Translation Rollout Configuration

By implementing your site structure with the LiveCopy functionality, you can utilize the rollout service within CQ to incorporate the Cloudwords Translation service. Follow the steps below to configure your site structure to utilize this functionality. This functionality provides translation services to different country localizations when rolling out updated site content.

To select the “LiveCopy” option from the “New...” drop down list in the Web Content Management.

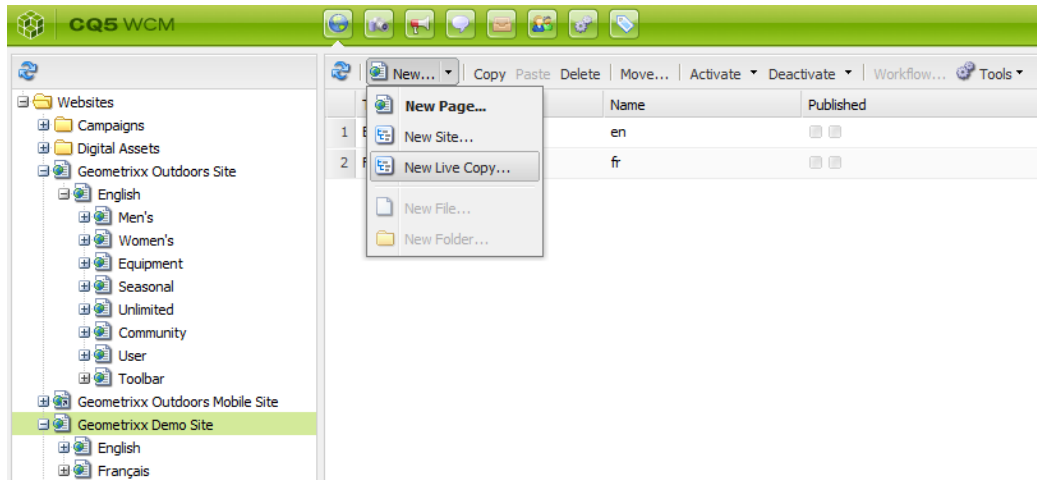


Fig 28: New LiveCopy Page

Fill out the “Create Live Copy” dialog with the desired form fields. Once the “Source selection” Tab has been completed, continue to the “Sync config” tab.

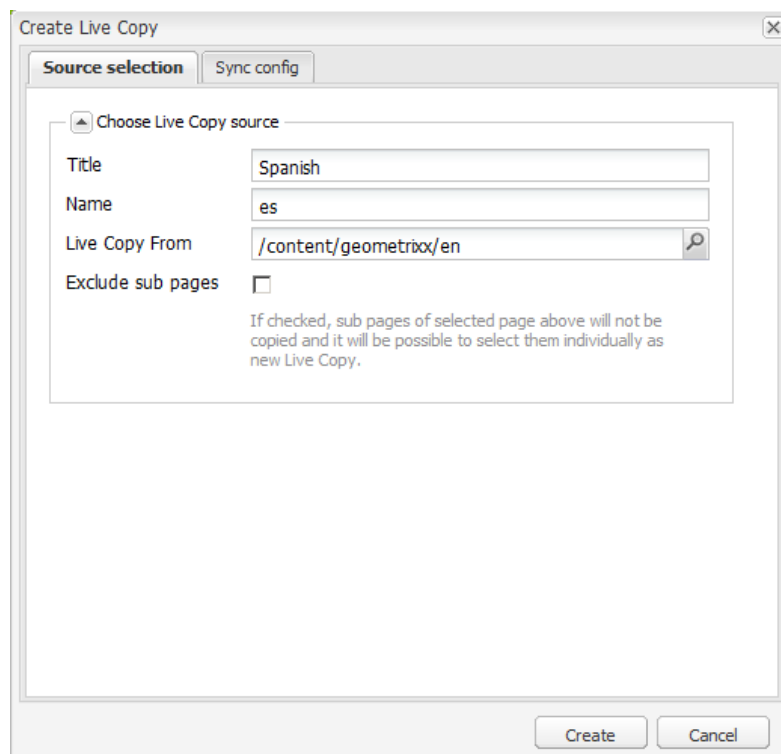


Fig. 29: Create Live Copy – Source selection tab

Flick the “Add Item” link from the list of potential Rollout Config options. From the list of “Rollout Configs” options, select the “Cloudwords rollout config” from the drop down list and click the “Create” button to build the instance of the LiveCopy page.

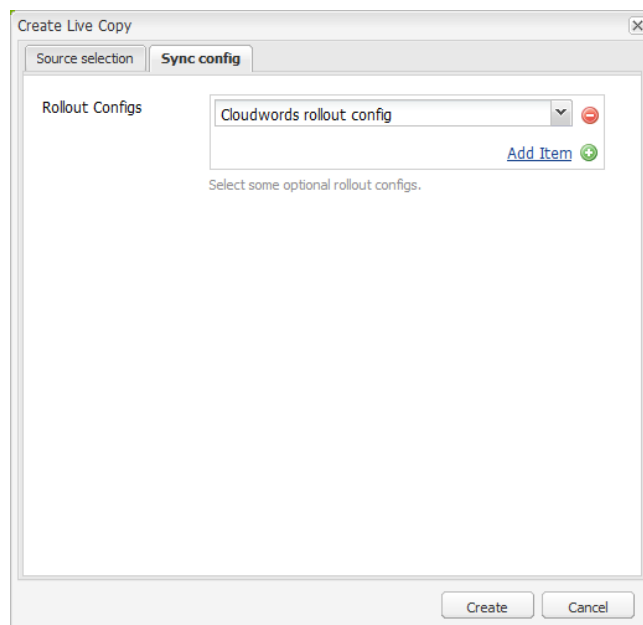


Fig. 30: Create Live Copy – Sync config tab

When the Cloudwords Rollout Configuration is set on the LiveCopy page the translation needed for this page is automatically configured when the content is rolled out.

Workflow Package: Build Package of Page Listings

Using CQ's workflow package, you can also configure a list of pages via the Workflow Package Tool. This tool is accessible within the Miscellaneous Admin page: <http://localhost:4502/miscadmin>.

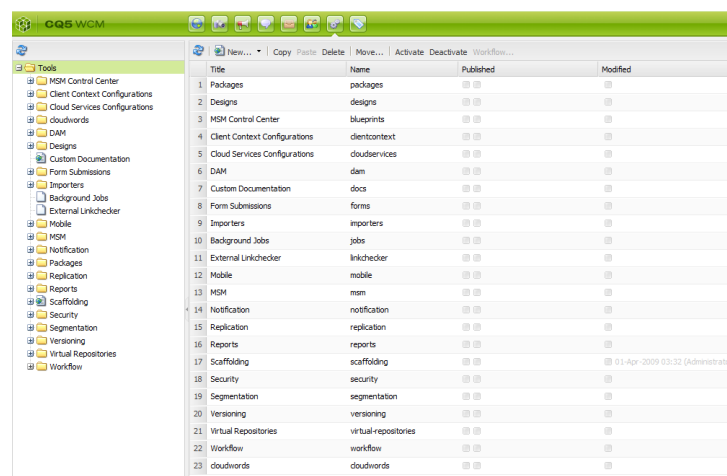


Fig. 31: Misc Admin

Select the “Workflow” folder in the left-hand navigation hierarchy. The select “Workflow Packages” from the list the available workflows.

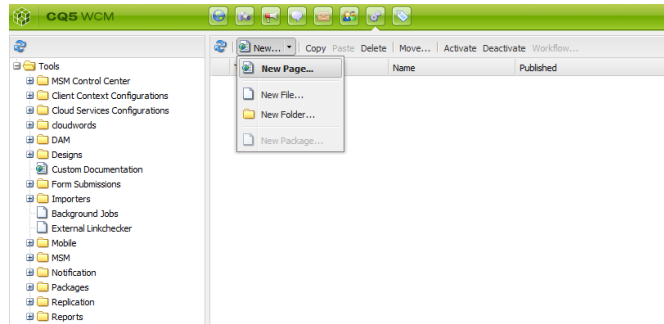


Fig. 32: New Page Creation

Select the “New Page” option from the New dropdown list.

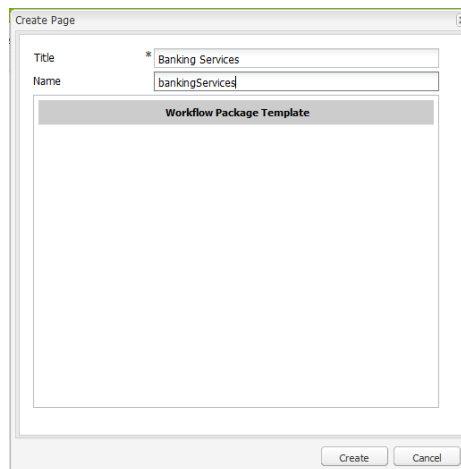


Fig. 33: Create Page Dialog

In the “Create Page” dialog fill out the desired title and name and ensure “Workflow Package Template” is selected. Click the “Create” button.

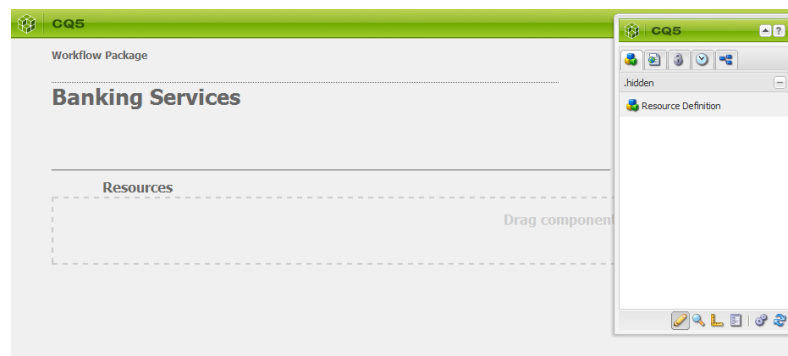


Fig. 34: Cloudwords Translation Workflow Package

Drag a “Resource Definition” component to the newly created workflow package.

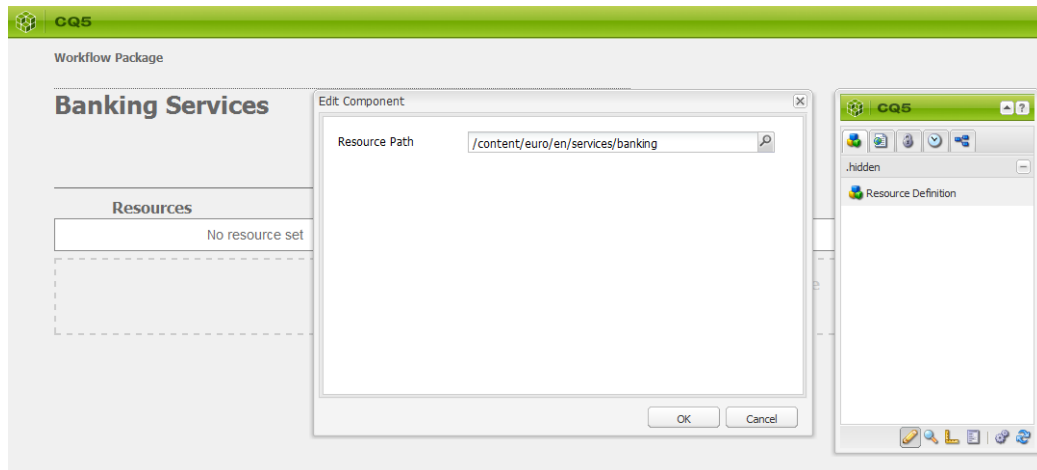


Fig. 35: Cloudwords Translation Workflow Package Configuration

Right click the resource definition component and select the “Edit” option from the menu.

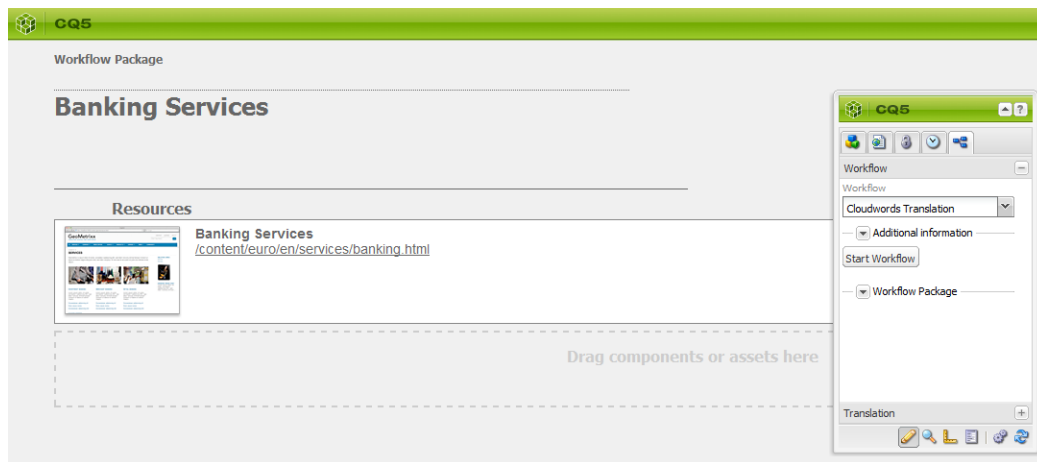


Fig. 36: Cloudwords Translation Workflow Package Configuration

Once the desired list of pages has been added chose the “Cloudwords Translation” workflow option from the workflow tab.

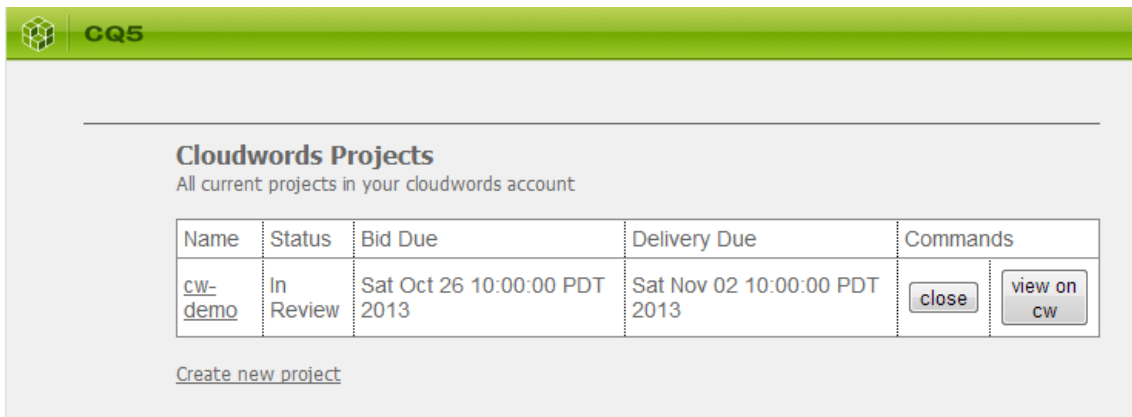
Preview Functionality

Previewing translation functionality is to be implemented at a later date. Explanation of this functionality will be included in this document at a later time.

Step 1: Open the Cloudwords Projects page

Open a browser and navigate to <http://localhost:4502/etc/cloudwords/projects.html>.

This page provides a listing of all open projects in your Cloudwords account. It provides a “View on Cloudwords” link to open the corresponding page in the Cloudwords application. If the project was created through the CQ connector, the project name will link to the CQ project page with more information about that project.



Name	Status	Bid Due	Delivery Due	Commands
cw-demo	In Review	Sat Oct 26 10:00:00 PDT 2013	Sat Nov 02 10:00:00 PDT 2013	<button>close</button> <button>view on cw</button>

[Create new project](#)

Fig 37: The Cloudwords Projects page

Click on any project in the Projects page to open the page for a single CQ Cloudwords project. You can also directly open a project page from the Workflow Inbox. Simply double click the content path for a Cloudwords workflow item. It should be in the form `/etc/content/projects/<project-name>`

Step 2: The Cloudwords Project Page

This page gives a listing of all pages that are being translated, the target paths for each language, and when a translation is ready, a link to preview that page’s translated content.

Cloudwords Project			
Name: cw-demo SourceLang: en			
Source Translation Paths			
Source Path	Target Language	Target Path	Preview?
/content/cloudwordsDemo/en/products	fr	/content/cloudwordsDemo/fr/products	Preview
/content/cloudwordsDemo/en/services	fr	/content/cloudwordsDemo/fr/services	Preview

Fig 38: The Cloudwords project page

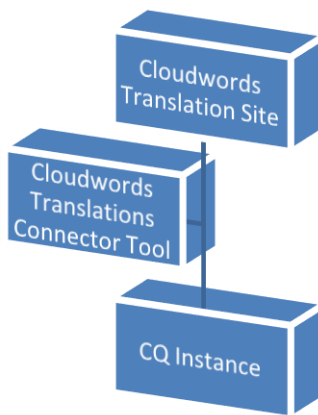
Once a translation is ready, the Preview button on the right side will let you preview a translation on the page without having to apply it permanently. The link will take you to the appropriate page with a .preview.html extension.

When you have completed your review and are ready to apply the full translation, you may move the Cloudwords workflow to the “Apply Translation” step to apply the translations to all the pages and languages.

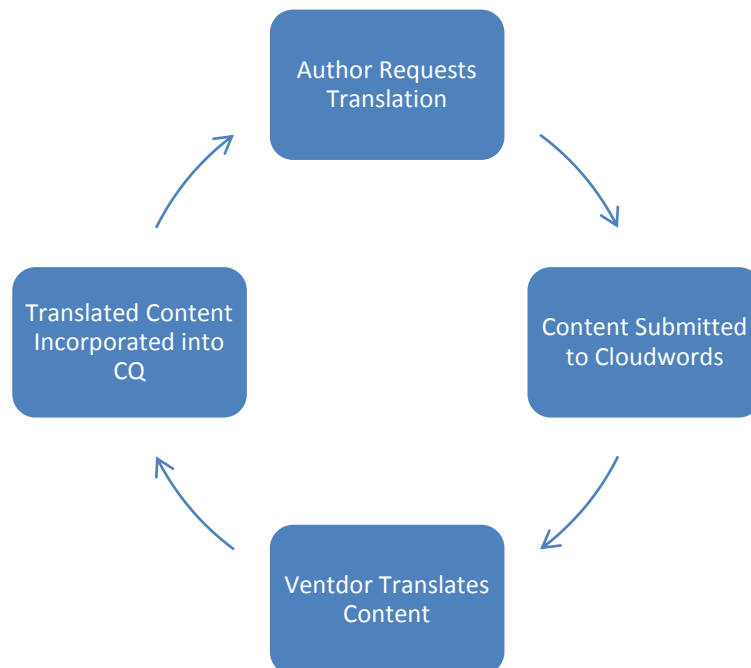
Technical Specification

Basic Architecture

The Cloudwords Translation Connector tool has been implemented as a service utilizing the OSGi framework. This service acts as an interface between the running instance of CQ and the Cloudwords API. Utilizing this process of development will allow the developer to expand translation functionality in the future. Due to the fact that the components are modularized, one component can be replaced by another. For example, the Cloudwords Translations Connector tool could be replaced by another translation service.



The figure below outlines the basic workflow for translating content. (More detail needs to be added to elaborate on specific steps)



The implementation of the Cloudwords Service within the OSGi framework facilitates communication between the Cloudwords Translation Service Website and the CQ instance. Through this connection, the polling service is able to receive and send updates regarding translation projects.

The Translation Exporter implementation handles exporting the desired content to be translated from CQ and submitting it to Cloudwords for translation. After iterating through a list of pages to be translated, a compressed file is created containing the content needing to be translated. This compressed file created is made by using the Oasis XLIFF standard and the Okapi.

The Translation Importer implementation works in the exact opposite flow. Once content is translated by Cloudwords the Translation importer handles incorporating that content into CQ.

The Polling Service monitors when changes occur and passing on that information to CQ in order to keep it up to date.

Service Implementation

OSGI Modules:

Module Name	Module Description
cloudwords-client-api	The Cloudwords Java API
cloudwords-services	Cloudwords CQ Connector services package
cloudwords-service-content	Cloudwords content configuration services
cloudwords-service-xliff	XLIFF generation and parsing services
cloudwords-taglib	Cloudwords CQ Connector taglib package
com.cqblueprints.taglib	Dependency
com.squeakysand.jcr	Dependency
com.squeakysand.jsp	Dependency
com.squeakysand.sling	Dependency

CRX Packages:

Module Name	Module Description
cloudwords-all	Combination package that contains all the required OSGi modules and other packages.
cloudwords-view	Contains all the JSP and JavaScript for the connector's UI

Note: All of these packages and modules are automatically installed as part of the cloudwords-all package.

Cloudwords Translation Connector Major Packages and Classes

com.headwire.cloudwords.content: Package for classes dealing with Content and creating/using ContentConfigs.	
ContentConfig	Interface defining a content configuration class
ContentConfigFactory	Service that creates and configures ContentConfigs
ContentConfigSAXHandler	SAX Handler implementation for reading XML content
ContentConfigurationService	Service class to hold the content config OSGI settings.
ContentConfigXmlParser	Class with utility methods to parse XML ContentConfigs
DialogContentConfig	Implements a content config that looks up the dialogs for each component it finds and pulls the content paths from the textfields in the dialog
SimpleContentConfig	Base class for storing configurations in a map. It is extended by XmlContentConfig.
TargetListSAXHandler	SAX Handler implementation for reading target list xml files
TargetListXmlParser	Class with utility methods to parse XML target lists
TitleContentConfig	Example of a simple custom implementation if needed. In most cases, XmlContentConfig should suffice.
XmlContentConfig	Implements a content config that parses an xml file and stores a map of the content paths
com.headwire.cloudwords.content.impl: Implementation of ContentConfigurationService	
com.headwire.cloudwords.services: Contains major service classes and beans	
CloudwordsManager	Service class that provides helper methods for performing common operations.
CloudwordsService	Main service class that serves both as a wrapper for the CloudwordsCustomerAPI of the Cloudwords SDK and as the container for most of the bundle configuration.
CloudwordsPollingService	Scheduled service that runs every 5 minutes (by default, schedule configurable in the OSGI console) and checks all Cloudwords workflows for their status.
CloudwordsProject	Provides a container for storing information about a Cloudwords project and works as a wrapper for workflow and project data.
TranslationExport	Simple Java bean for holding information needed to export a project.
TranslationExporter	Service class to actually create the zip file to send to Cloudwords.
TranslationImport	Simple Java bean for holding information needed to import a project.
TranslationImporter	Service class to import a translated project and update content.

com.headwire.cloudwords.services.impl - Implementations of CloudwordsService, CloudwordsManager, CloudwordsPollingService, TranslationExporter, and TranslationImporter	
com.headwire.cloudwords.ui - Classes dealing with the UI	
TreeNodeInfo	Helper java bean for building JSON responses that populate the Cloudwords Wizard tree view. See LiveCopyUtil for example uses.
TreeNodeUtil	Utility class for searching the CQ repository and populating the Cloudwords Wizard.
com.headwire.cloudwords.util - Utility classes used throughout	
CloudwordsUtil	Utility class to get references to services, get configuration options, and help with making beans.
LiveCopyUtil	Utility class specifically for doing some common methods needed for following LiveCopy setups.
com.headwire.cloudwords.workflows - Contains Workflow step processes and actions.	
CheckProjectSettingsProcess	Ensures that the Cloudwords project is configured correctly in CQ and adds default values as needed.
CreateProjectProcess	Reads the workflow configuration to find the project info and creates the associated project in Cloudwords.
SendSourceFileProcess	Creates and sends the project source file.
ApplyTranslationProcess	Downloads a project's translation files and applies the updated content to the configured target paths for each language.
Util	Helper methods for some basic workflow tasks
com.headwire.xliff : Contains the Xliff export and import classes and interfaces.	
TransUnit	Simple java bean for holding the content of a single <trans-unit> tag inside an xliff file
XliffExporter	Service to export an xliff file of a particular content page.
XliffFile	Simple java bean for holding the contents of an xliff file
XliffImporter	Service to load the content of an xliff file into java beans for later use
XliffParser	Parses and returns an XliffFile with the translated content
XliffSAXHandler	Implements a SAX Handler for parsing xliff files
com.headwire.xliff.impl : Contains the implementation classes for XliffExporter and XliffImporter	

CQ Components

cloudwords/components/translationselector - Cloudwords Wizard component. This component walks the user through the steps required to set up and start a project. Each page (and the pages that work as form actions) uses a different selector.

translationselector.jsp - Source path selection

languages.html.jsp - Target language configuration

confirm.html.jsp - Project configuration confirmation page

done.html.jsp - Creates the final workflow and forwards to workflow inbox

The code for the Cloudwords Wizard ExtJS UI is located at
/etc/designs/cloudwords/clientlibs/js/cloudwords-ui.js

This component can be accessed at /etc/cloudwords/translationselector.html

cloudwords/components/util - Utility component that mainly is used for outputting cloudwords-specific JSON data for the UI. This component can be accessed at /etc/cloudwords/util.html

cloudwords/components/testTranslate - Debug Component. This component will take a project ID and follow it through the vendor process. It's very useful for debugging without having to walk through the vendor process and upload your own fake translation. This component can be accessed at
/etc/cloudwords/attic/testTranslate.html

Example Use: <http://localhost:4502/etc/cloudwords/attic/testTranslate.html?id=5005>

Where 5005 is your project ID. You can find the ID by looking at the URL when you open the project in the Cloudwords website.

cloudwords/components/projects - Unused page showing a list of the current Cloudwords projects in your account.

cloudwords/components/project - Unused page showing information about a specific cloudwords project and letting you create a new one. This was replaced by the Cloudwords Wizard (cloudwords/components/translationselector)

cloudwords/components/sendProject - Unused page for sending a project's source file. This was replaced by the Cloudwords Wizard (cloudwords/components/translationselector)

cloudwords/components/seeBids - Unused and unfinished page for selecting bids. It was decided that it would be preferable to use the Cloudwords website itself for the vendor selection and bid process.

Services:

The implementation of the Cloudwords Service within the OSGi framework facilitates communication between the Cloudwords Translation Service Website and the CQ instance. Through this connection, the polling service is able to receive and send updates regarding translation projects.

The Translation Exporter implementation handles exporting the desired content to be translated from CQ and submitting it to Cloudwords for translation. After iterating through a list of pages to be translated, a compressed file is created containing the content needing to be translated.

This compressed file created is made by using the Oasis XLIFF standard.

The Translation Importer implementation works in the exact opposite flow. Once content is translated by Cloudwords the Translation importer handles incorporating that content into CQ.

The Polling Service monitors when changes occur and passing on that information to CQ in order to keep it up to date.

Content Export Configuration:

Content is exported through instances of the `com.headwire.cloudwords.content.ContentConfig` interface. These classes should run as an OSGi Service implementing the `ContentConfig` interface and with an OSGi property “`cloudwords.content.type`” that denotes the type name. There are two examples provided, the `DialogContentConfig` (type ‘`dialog`’) and the `XmlContentConfig` (type ‘`xml`’). The `ContentConfig` instance used by the export process is configured in the OSGi Cloudwords Service Implementation configuration.

You may implement your own `ContentConfig` to use instead if you require more advanced content handling. An example class, `TitleContentConfig`, that uses the Apache Felix SCR Annotations and solely outputs the `jcr:title` for each component follows:

```
@Component(metatype = true, label = "TitleContentConfig", description = "Example that only
outputs titles")

@Service()

@Properties({

    @Property(name = Constants.SERVICE_VENDOR, value = "[Vendor Name]"),

    @Property(name = Constants.SERVICE_DESCRIPTION, value = "Title Content Config"),

    @Property(name = "service.pid", value =
"com.headwire.cloudwords.content.TitleContentConfig"),

    @Property(name = "cloudwords.content.type", value = "title", label = "ContentConfig
type name")

})
```

```

public class TitleContentConfig implements ContentConfig {

    public List<String> getContentList(Resource res) {

        List<String> paths = new ArrayList<String>();

        paths.add("jcr:title");

        return paths;

    }

    public ContentConfig configure(String path) {

        return new TitleContentConfig();

    }

}

```

This content config could be chosen by setting the configuration to “title.” The Content Config Path option in the OSGI cloudwords configuration is passed to the configure method. Please note that while you could return “this” instead of making a new TitleContentConfig in the configure() method, in that case your implementation must be thread-safe, even if configure() is called again while another process is currently doing an export.

Additional References

Adobe Multi Site Manager (MSM): http://wem.help.adobe.com/enterprise/en_US/10-0/wem/administering/multi_site_manager.html

Cloudwords API: <http://www.cloudwords.com/learn/developers/documentation/#more-1961>

Cron Scheduling Expressions: <http://en.wikipedia.org/wiki/Cron>

Oasis XLIFF Standard: <http://docs.oasis-open.org/xliff/xliff-core/xliff-core.html>