HCL Digital Experience

HDX-INT-DEV
Integrate DX Assets and Content

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Bio

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Introduction

Many applications require imagery, videos, and content to bring them to life and create an engaging user experience. Such content and assets often come from a central content & asset management system, which is used by multiple mobile and non-mobile applications, to ensure consistent communication and branding across all customer interactions. This also allows business users to update the content & assets without needing to republish the application. HCL Digital Experience (DX) provides content and asset services, as well as services to personalize them, accessible via a set of GraphQL and REST APIs.

Example: include news, help guides, tutorials, or other corporate content in your application; retrieve imagery or support videos from the asset management service for consistent branding & quick update.

This hands-on lab gets you started on the HCL Digital Experience (DX) platform and its integration with any external application.

In this DX developer lab, you play the role of Gene, a developer for the fictitious Woodburn Studio company.

Gene Hayes, Developer, based in Chicago (USA)

You will learn how to access several assets and content using the GraphQL and REST APIs.

Prerequisites

1. Completion of the HDX-INTRO, HDX-BU-100 (to get your own DX server running on HCL SoFy, create some assets and learn how to access content) and HDX-DEV-100 (to learn how to use the Experience APIs) courses

You will be using the following user IDs and passwords:

Purpose	User	Password
SoFy Login	Your official email id	Your password
SoFy Solution Console Login	sol-admin	<from solution console>
DX Developer Login	ghayes	HCL-Dem0

Lab Overview

In this lab, you will explore the use of HCL Digital Experience assets and content externally.

There are two parts in this lab.

Part 1: Access your Assets Externally

You will learn how to access your assets externally. You may use direct links to these resources, and access them with the DX Experience REST APIs.

Part 2: Access your Content Externally

You will learn how to access content externally. You may use direct links to these resources, and access them with the DX Experience GraphQL and REST APIs.

Part 1: Access your Assets Externally

You will learn how to access your assets externally. You may use direct links to these resources, and access them with the DX Experience REST APIs.
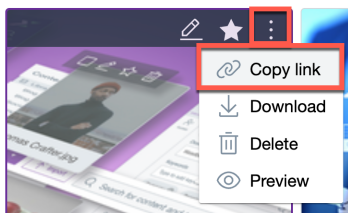
You may use the DX for Business Users (Beginners) course https://hclsw.co/hdx-bu-100 with Digital Assets lesson https://hclsoftwareu.hcltechsw.com/courses/lesson/?id=302 to learn how to create digital assets, like images with dedicated renditions, videos and other files.

1. The easiest way to access the assets is with the download link. In the Digital Asset Management, for each asset, you can use the **Copy link** option in the more menu. This generates a download link that uses the HCL Digital Experience Asset Management REST API getRendition, documented in https://opensource.hcltechsw.com/experience-api-documentation/dam-api/#operation/RenditionController.getRenditions. The GET REST API URL to get the binary is defined as:

   ```
   <host>/dx/api/dam/v1/collections/<collection_id>/items/<asset_id>/renditions/<rendition
   _id>?binary=true
   ```

   For your asset, it may look like (with your own host):
   https://dx.sbx0000.play.hclsofy.com/dx/api/dam/v1/collections/a04f3a19-8ca0-4117-aa8c-262cd390d78c/items/8e27892b-c22b-4396-a344-41e683984e03/renditions/fcda5707-dad0-4a83-a2a9-7430fb14f394?binary=true.

2. You may simplify this by using the name as the collection ID. E.g. if you set or use the automatically generated unique name of the collection, by clicking on **i** and then under **Information** the **Unique name** entry, here set to **DX_Promotions** (created automatically from the Collection name). Then your URL would become https://dx.sbx0000.play.hclsofy.com/dx/api/dam/v1/collections/**DX_Promotions**/items/8e27892b-c22b-4396-a344-41e683984e03/renditions/fcda5707-dad0-4a83-a2a9-7430fb14f394?binary=true.
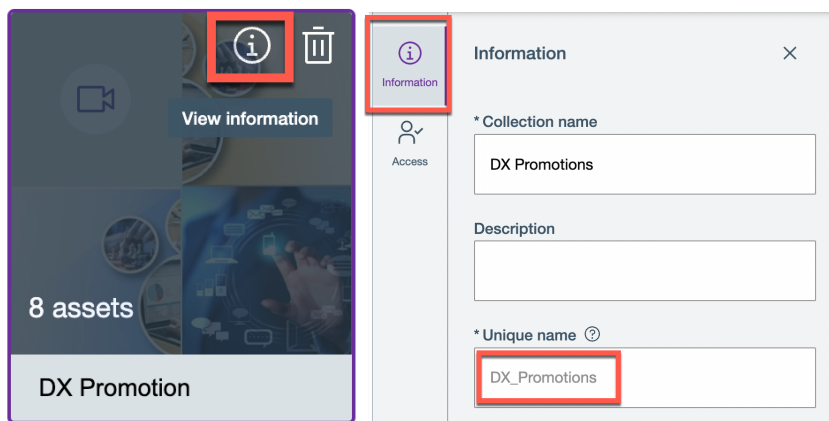
3. If you want to have a simpler REST API URL to access any of the renditions, you can use the asset file name. For our image file **DX Banner.png**, it would create https://dx.sbx0000.play.hclsofy.com/dx/api/dam/v1/collections/**DX_Promotions**/items/**DX%20Banner.png**/renditions/fa30f36e-6719-41df-9e79-7abdc4c5ba0d?binary=true. If you wish to access a specific rendition more easily, then use the renditions parameters 'Original' (source), 'Desktop', 'Smartphone' or 'Tablet', with collection unique name, image file name and Smartphone rendition: https://dx.sbx0000.play.hclsofy.com/dx/api/dam/v1/collections/**DX_Promotions**/items/**DX%20Banner.png**/renditions/**Smartphone**?binary=true. Find more details in https://opensource.hcltechsw.com/digital-experience/latest/manage_content/digital_assets/configuration/configure_dam_friendlyUrl

4. You may also generate a custom URL for the asset itself, under the **Information** section of your asset. In this case, with custom URL **dxbanner.png**, it would become https://dx.sbx0000.play.hclsofy.com/dx/api/dam/custom/**dxbanner.png**. This gives you only access to the source image.
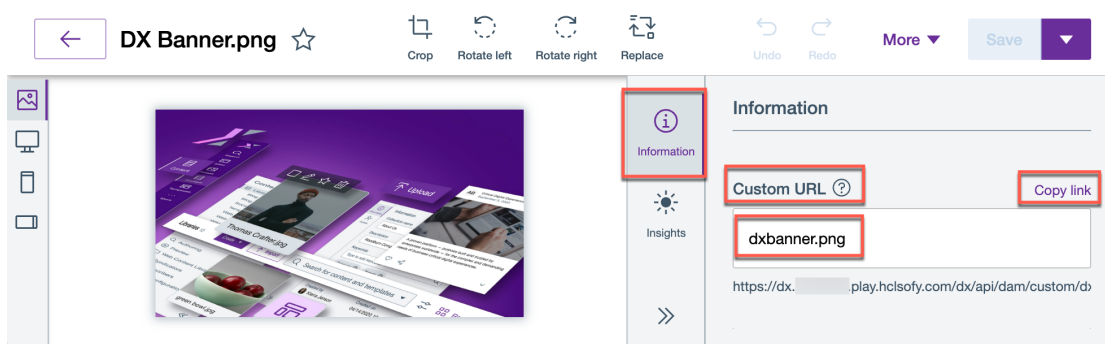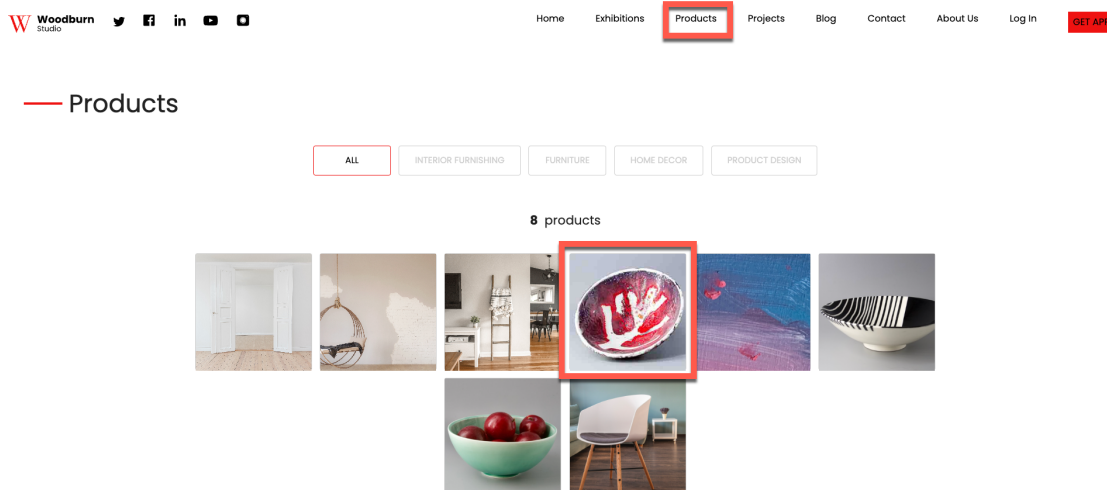

You have successfully learned how to access your assets.

Part 2: Access your Content Externally

In this part, you will learn how to access content externally. You may use direct links to these resources, and access them with the DX Experience GraphQL and REST APIs.

In DX, you may access the content in headless way or manage the presentation of it. This means, you may define in DX how the content elements will appear, for example in a web site. You may have DX manage the presentation of single content, multiple contents, web pages (where the content may be combined with other content and applications and be personalized) and even sites, e.g. a help guide for your application. In the DX Introduction course, https://hclsw.co/hdx-intro, you have seen how to manage content, pages, and sites. In DX for Business Users (Beginners) course https://hclsw.co/hdx-bu-100 with Web Content lesson https://hclsoftwareu.hcltechsw.com/courses/lesson/?id=506, you learn how to manage Content Templates. You may first want to create your own dedicated web content library. This is detailed in the lab part 2 of https://hclsoftwareu.hcltechsw.com/courses/lesson/?id=506. In the DX for Developers (Beginners) course https://hclsw.co/hdx-dev-100 with Web Content lesson https://hclsoftwareu.hcltechsw.com/courses/lesson/?id=414., you may easily learn how to add this head.

1. You may integrate full sites using the top level URL. For Woodburn Studio it would be (updated with your host) https://dx.sbx0000.play.hclsofy.com/wps/portal/woodburnstudio. You may refer to individual pages, like the Products page, where you will see a list of products, using the URL https://dx.sbx0000.play.hclsofy.com/wps/portal/woodburnstudio/our-products.

2. Click on any of the products, like **Product 04** , to see its details.

3. This shows page with content. You can also access only the content with a special presentation. In that case, the URL format to access the content with its presentation directly is as follows:
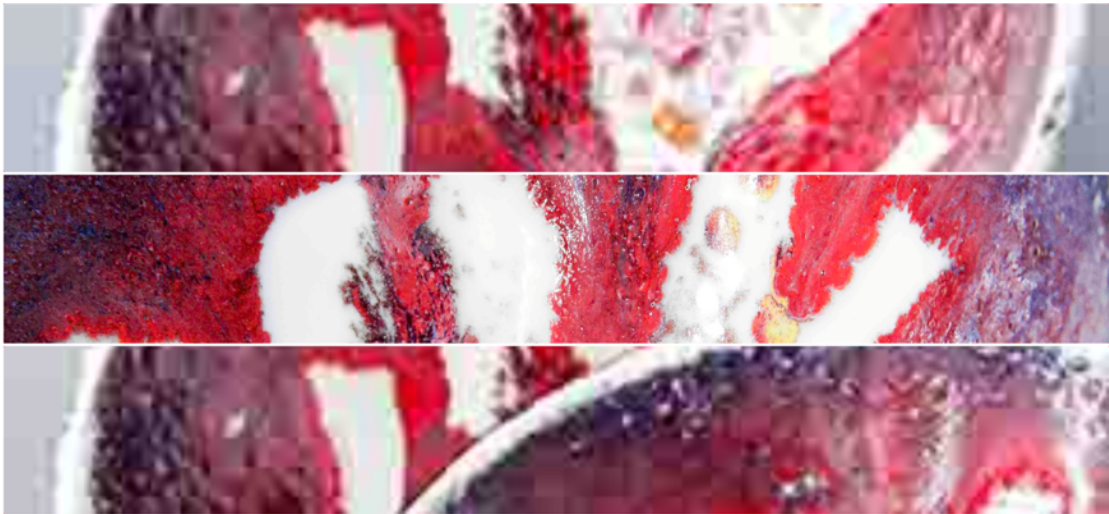
    <host>/wps/wcm/connect/<WCM library>/<Site Area Name>/<Content Name>

    For the **Product 04** in the **Products** site area of the **Woodburn Studio Content** library, this becomes
    https://dx.sbx0000.play.hclsofy.com/wps/wcm/connect/**Woodburn+Studio+Content/Products/Product+04**.
    Notice it looks a bit strange, as it relies on the DX theme to select the right image to show.

4. To solve this, you may use a dedicated presentation template, using:

    <host>/wps/wcm/connect/<WCM library>/<Site Area Name>/<Content Name>*?presentationtemplate=<web content library/presentation template name>.*

    For example, you may use the Web Content - Article Presentation Template, and it becomes:
    https://dx.sbx0000.play.hclsofy.com/wps/wcm/connect/Woodburn+Studio+Content/Products/Product+04**?presentationtemplate=Web+Content/Article+Presentation**, which only shows you the content title. More details on how to create the links to web content in https://opensource.hcltechsw.com/digital-experience/latest/manage_content/wcm_delivery/wcm_config_delivery_servlet/.

Product 04

**5.** And to examine how this content was structured, use the **Content Composer** under the **Practitioner Studio**, open the **Woodburn Studio Content** web content library, the **Products** site area and then **Product 04** content. You will see its Content ID or UUID, and you can easily copy this.
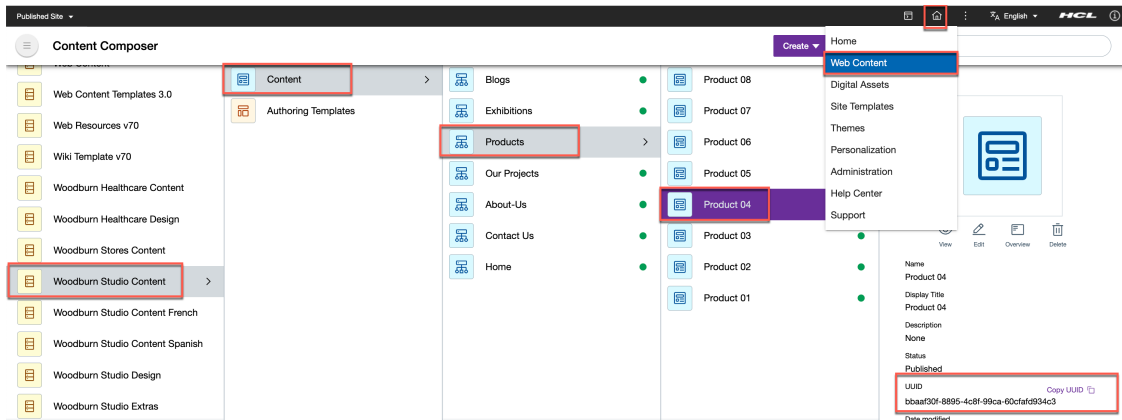
6. The Content Template ID is visible in the Content Composer. For example, the Products Contents in Woodburn Studio are based on the Woodburn Studio Design, AT-Product-Item Content Template. To find the Content Template ID for this Content Template, open the **Content Composer**, select the **Woodburn Studio Desig**n library, click **Authoring Templates** – **AT-Product-Item** and you will find its **UUID** which you can easily be copied.
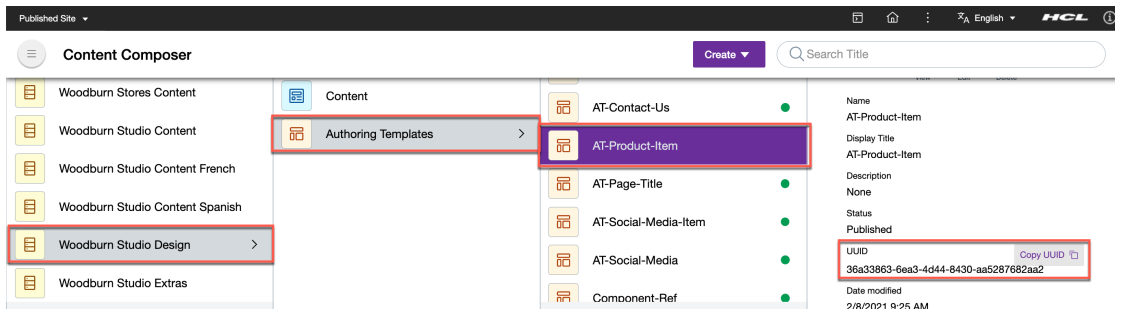
7. You may access a list of contents as well. This may be managed by components, like a menu, personalization, search, navigation component, etc. You may refer to a component using a specific context or path (site area/content), using:

<host>/wps/wcm/connect/<WCM library>/<Site Area Name>/<Content Name>*?srv=cmpnt&source=library&cmpntname=<component name>*

For example, you may want to show the Menu Component **MENU-ALLProducts** in the **Woodburn Studio Design** library, using the **Woodburn Studio Content/Products** site area. to show all products (it shows the number of products and then their pages): https://dx.sbx0000.play.hclsofy.com/wps/wcm/connect/Woodburn+Studio+Content/Products?srv=cmpnt&source=library&cmpntname=Woodburn+Studio+Design/MENU-AllProducts

8 products
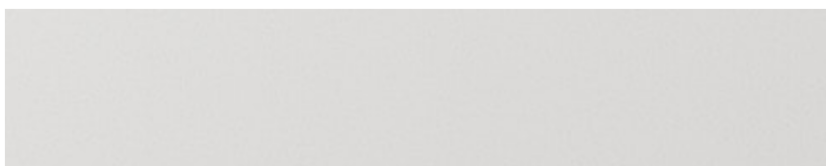
8. To access this content in a headless way, you may want to use the GraphQL and REST APIs. The DX for Developers (Beginners) Experience API lesson gets you started with this: https://hclsoftwareu.hcltechsw.com/courses/lesson/?id=416.

In this lesson, you will learn how to use the HCL Digital Experience Experience API to access and use DX externally.

Watch the video and then try it out with the lab below.

You can also download the lab and corresponding resources files from the Lesson Links.

Required   ✓ Completed

Experience API

📤 Up Next...

Course Test - Coming Soon

←| |→

✔ Lesson Completed

📨 Lesson Links

Experience API Lab
Experience API Lab Resources
Experience API in Help Center
Example Experience API calls
Sample Content UI using Experience API
Sample DX Sites in Help Center

9. There are two REST API versions to access the WCM content. The easiest to use for reading is V1 with this GET REST API URL:

```
<host>/dx/api/core/v1/<access_type>/webcontent/contents/<content_id>
```

with access type **dxrest** for anonymous content, and **mydxrest** for content where you need to be authenticated, as documented in https://opensource.hcltechsw.com/experience-api-documentation/ring-api/#operation/webContentReadContent. To access Product 04 with UUID bbaaf30f-8895-4c8f-99ca-60cfafd934c3, you would use URL https://dx.sbx0000.play.hclsofy.com/dx/api/core/v1/dxrest/webcontent/contents/**bbaaf30f-8895-4c8f-99ca-60cfafd934c3**.

You may also do a search on content, e.g. based on a dedicated Content Template. In the documentation, you may find the webContentSearch REST API: https://opensource.hcltechsw.com/experience-api-documentation/ring-api/#operation/webContentSearch. V1 gives you this GET REST API URL to search for content based on a specific Content Template ID:

```
<host>/dx/api/core/v1/<access_type>/webcontent/search?type=Content&authoringTemplateID=<contentTemplate_id>
```

If you wish to make updates to DX Content from your application, you may want to consider using WCM REST API V2. You may use GET REST API URL

```
<host>/wps/mycontenthandler/wcmrest-v2/contents/<content_id>
```

Which is documented in https://opensource.hcltechsw.com/experience-api-documentation/wcm-api/#tag/Content/paths/~1contents~1{content_id}/get.

You have successfully learned how to access the content in various ways.

Conclusion

Using this lab tutorial, you have learned how easy it is to use HCL Digital Experience assets like images, videos and files and structured content externally.

Resources

Refer to the following resources to learn more:

HCL Digital Experience Home - https://hclsw.co/dx

HCL Digital Experience on HCL SoFy - https://hclsofy.com/

HCL Software - https://hclsw.co/software

HCL Product Support - https://hclsw.co/product-support

HCL DX Product Documentation - https://hclsw.co/dx-product-documentation

HCL DX Support Q&A Forum - https://hclsw.co/dx-support-forum

HCL DX Video Playlist on YouTube - https://hclsw.co/dx-video-playlist

HCL DX Product Ideas - https://hclsw.co/dx-ideas

HCL DX Product Demos - https://hclsw.co/dx-product-demo

HCL DX Did You Know? Videos - https://hclsw.co/dx-dyk-videos

HCL DX GitHub - https://hclsw.co/dx-github

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