AEM Forms - Authoring and Publishing HTML5 Forms

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Agenda

- Introduction to HTML5 Forms
- Difference between HTML5 and PDF Forms
- Authoring of HTML5 Forms
- Rendering and Publishing HTML5 forms
- Forms Q&A

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Introduction to HTML 5 Forms

- Journey of Liveycle to AEM forms
- About XFA forms
- **Why XFA based form to HTML5 forms**
- **Key capabilities of HTML5 forms**
- Architecture of HTML5 forms

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Journey of LiveCycle to AEM forms

JetForms → Adobe LiveCycle → Adobe Experience Manger Forms

2001-02 → 2007-18 → 2014 onwards

Among all the Enterprise version HTML5 capability
is available ES4 onwards

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About XFA forms

HTML forms are based on XFA templates

- It was suggested and developed to enhance the processing of web forms.
- XFA's main extension to XML are computationally active tags.
- The Adobe XML architecture (XFA) combines the powerful data and business logic capabilities of XML with the rich presentation capabilities of Adobe Portable Document Format (PDF).

Static and dynamic forms

- Static form : the form's appearance and layout is fixed, regardless of the field content. By default, static forms does not require re-rendering.
- Dynamic forms (defined since XFA 2.1 or 2.2): Forms can change in appearance in several ways in response to changes in the data. Dynamic form requires rendering of its content on file opening.

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Why XFA forms to HTML 5 forms

- HTML5 forms bring numerous capabilities that are mobile-ready.
- You can now expand your current solutions to tablets or smartphones devices.
- This capability enables the rendering of forms on mobile devices and desktop browsers on which XFA-based PDF is not supported.
- HTML5 forms generates documents based on standard HTML5 constructs.
- HTML5 forms are supported in all modern browsers that support HTML5.
- It does not require installing any additional browser plug-ins.

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Key capabilities of HTML5 forms

- Renders existing XFA forms in HTML5 supported on all compatible browsers.
- Leverages standard XFA form design capabilities to target forms for mobile devices.
- Uses dynamic XFA capabilities in HTML5 format.
- Provides Support for JavaScript and FormCalc.
- Dynamically assembles fragments into interactive forms based on data-driven events or user input.
- Provides support for custom CSS to match appearance of the forms according to your enterprise standards.
- Enables custom widgets to offer a rich data capture experience.
- Provides support for integration with web apps.

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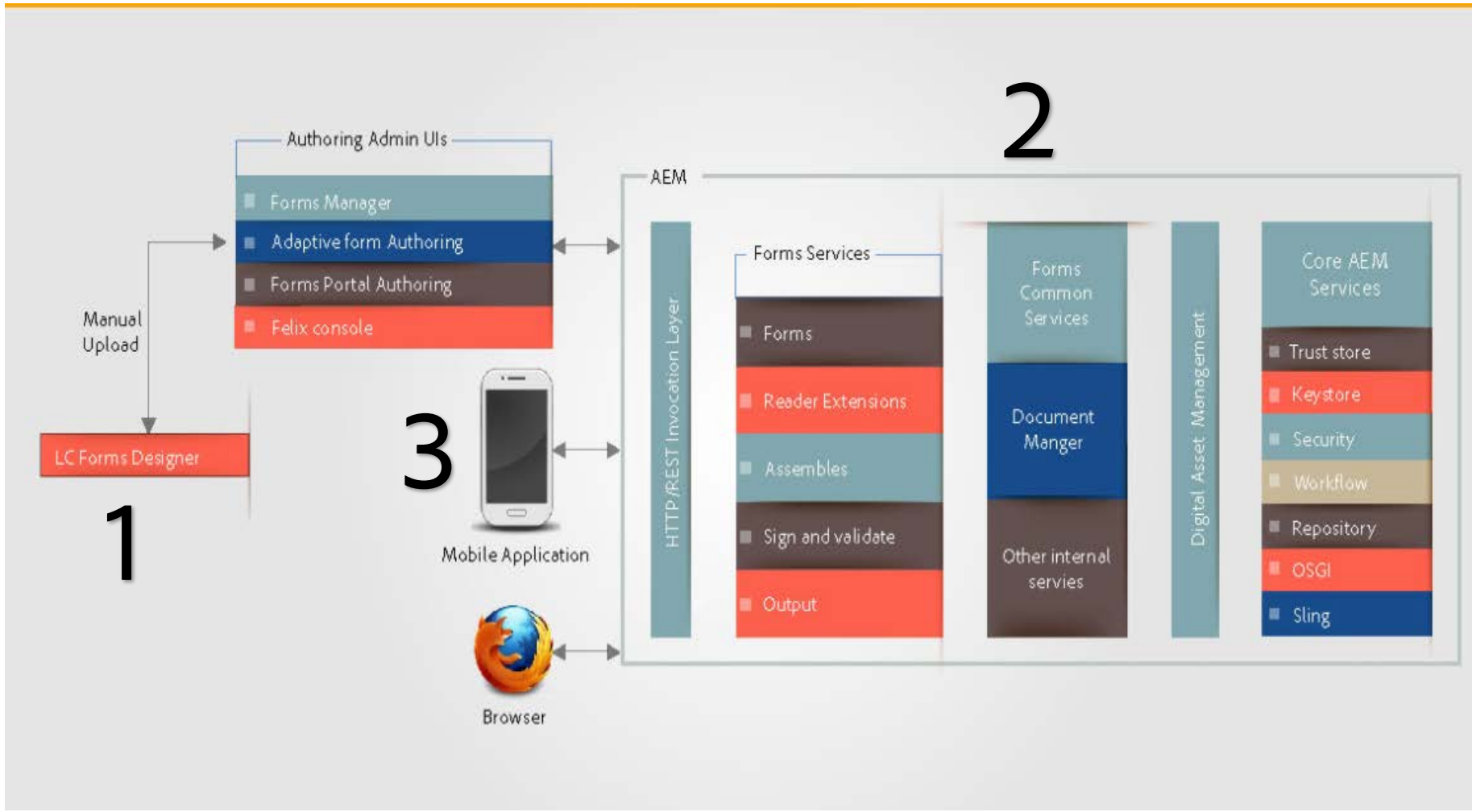
Architecture of HTML5 forms

1. Form Designer

2. AEM container

3. HTML rendering



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Difference between HTML 5 and PDF Forms

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Feature support provided for HTML5 and PDF Forms

Feature	HTML5 Forms	PDF
Signature field	**Digital Signatures** are not supported but a new **Scribble Signature** field is added for paper like signatures. One can scribble their signature on the form using the **Scribble Signature** field. The signature is saved on the form as an image. You can save geolocation information in the **Scribble Signature** field.	Signature field available for **Digital Signatures**.
Data Merge	Supported	Supported
Images	The Data URI scheme is used to display images. All the modern versions of browsers support this scheme but there are differences in the range of image formats that each browser supports.	The .gif, .png, .jpeg, .bmp, and .tiff formats are supported.
Pagination	An HTML5 form is divided into panels and boxes to give it an appearance similar to PDF forms. The size of the page is calculated dynamically. If all the contents of a page in an HTML5 form are deleted or marked hidden, then the blank page is hidden and an empty space (blank space) is not displayed between pages above and beneath the blank page. If data-merge or scripts add content to a page, then the length of the page expands to accommodate the newly added content.	Pagination in PDF depends on data content merged or user content and page count is increased/reduced based on it.

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Feature support provided for HTML5 and PDF Forms continued…

Feature	HTML5 Forms	PDF
Headers/Footers	Supported. As HTML5 mobile forms do not support page breaks, headers and footers appear only once. You can, however, set them up in the layout to appear at multiple places in the mobile forms preview.	Supported.
Custom Widgets	One can customize widgets to enhance the user experience on mobile devices.	All widgets are locked down and no custom widget can be plugged.
XFA Script API	Supports the most commonly used XFA script constructs. For details list of supported constructs, see scripting support.	Supports all XFA script constructs.
Acrobat Script APIs	HTML5 forms support most commonly used APIs. For details, see scripting support.	If the PDF file is opened inside Acrobat or Reader, it also supports all the script APIs that Acrobat provides.

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Authoring of HTML5 Forms

- Designing form templates
- Demo 1
- Understanding Rendering Profile
- Changing default styles of HTML5 forms
- Demo 2

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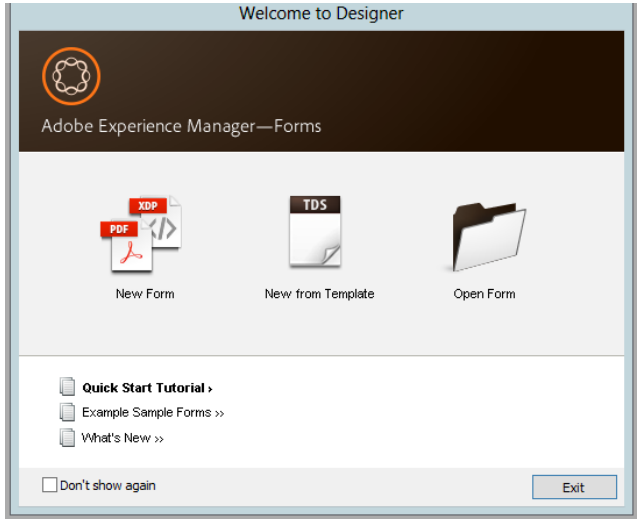
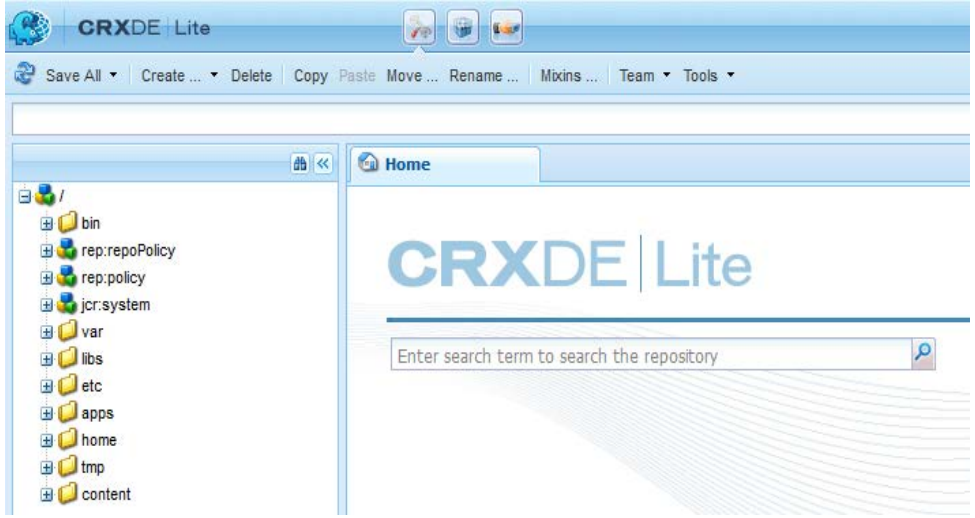
Designing form templates for HTML5 forms

- Form templates are designed using Forms Designer.
- These form templates, along with their assets, can reside in AEM repository, file system, or exposed via http.
- However, if you plan to manage your forms using Forms Manager, the templates and assets should reside in the AEM repository.





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Demo 1

- Configuring Designer Preview tab
- Creating a sample form using Designer
- Add a Text & numeric field, radio button and a signature filed to the form
- Preview the form in html

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Understanding HTML5 Profile

- A profile is a resource node in Apache Sling. It represents custom version of HTML5 forms rendition service.
- A profile node exists in the **/content** folder in the JCR repository.
- The profile node has the **sling:resourceSuperType** property and the default value is **xfaforms/profile**.
- The render script for the node is at /libs/xfaforms/profile.
- Use HTML5 forms Rendition service to customize appearance, behavior, and interactions of the HTML5 forms.
- The Sling scripts are JSP scripts.
- These JSP scripts serve as containers for putting together the HTML for requested form and the required JS / CSS artifacts..

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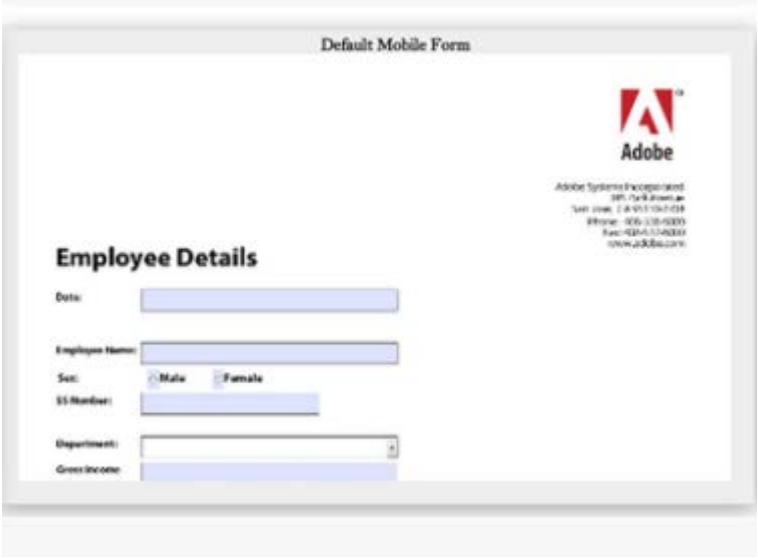
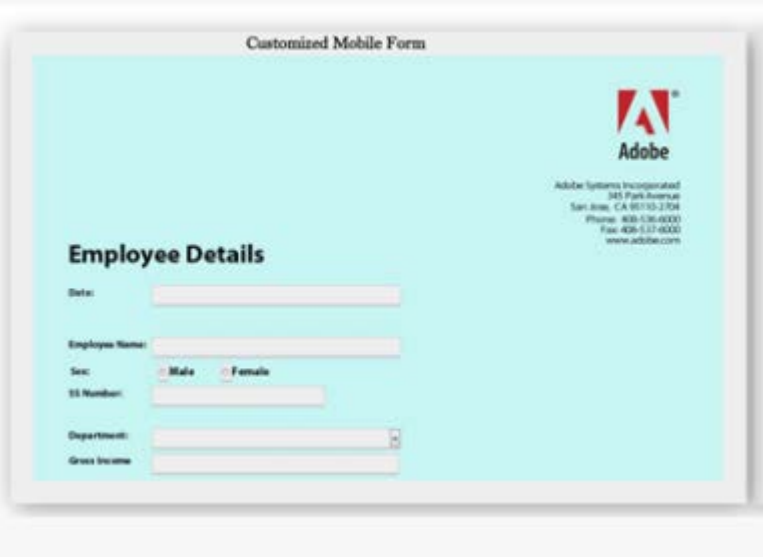
Changing default styles to HTML5 forms

- HTML5 forms are rendered using HTML5 capabilities and the styling of the rendered form is done using CSS.
- Default appearance of a HTML5 forms is similar to its PDF rendition. Developers can use custom CSS to change default appearance of HTML5 forms.
- Every element contains well-defined CSS classes. You can modify these classes to change the appearance of an element.





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Demo 2

- Understanding a rendering profile in CRX
- Creating a custom rendering profile.
- Rendering a form using the created custom profile

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Rendering form template for HTML5 forms

- Getting XDP and PDF documents in AEM Forms
- Rendering form template using Rest End Point
- Demo 3
- Publishing an Asset

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Getting XDP and PDF documents in AEM Forms

- You can import your forms from your local file system to the CRX repository, by uploading in to AEM Forms. The upload operation is supported for the following asset types:
  - Form templates (XFA forms)
  - PDF forms
  - Document (Flat PDF documents)

- Also, you can upload the supported asset types individually or as a ZIP archive. You can upload an asset of the type **Resource**, only alongside an XFA form in a ZIP archive.

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Rendering form template using Rest End Point

- HTML5 forms have the notion of **Profiles** which are exposed as REST Endpoints to enable Mobile Rendering of Form Templates. These Profiles have associated **Profile Renderer**.

- They are JSP pages responsible for generating HTML representation of the form by calling the Forms OSGi service. The JCR path of the Profile node determines the URL of the render end point.

- The default render end point of the form pointing to 'default' profile looks like:

http://*<host>*:*<port>*/content/xfaforms/profiles/default.html?contentRoot=*<path of the folder containg form xdp>*&template=*<name of the xdp>*

- For example,

http://localhost:4502/content/xfaforms/profiles/default.html?contentRoot=c:/xdps&template=sampleForm.xdp

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Demo 3

TASK 1

- Upload the form created in Designer to forms Manager
- Render the form in PDF and HTML mode

Task 2

- Render XDP placed in Local drive using Rest Endpoint
- Render XDP placed in CRX in browser

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Publishing an asset

Supported assets

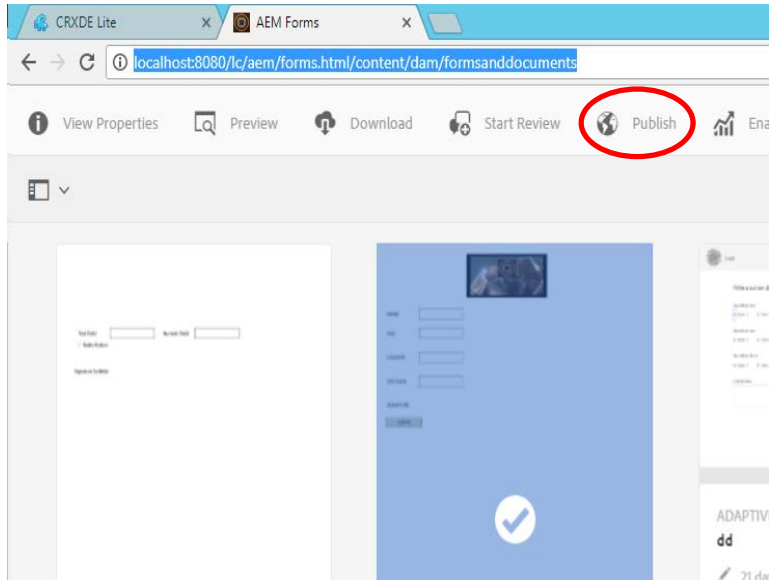
- Adaptive forms
- Form templates (XFA forms)
- PDF forms
- Document (Flat PDF documents)
- Resource (Images)

Steps to publish an Asset:

- Log in to the AEM forms server.

- Use one of the following procedures to select and publish an asset.
  Move the pointer over an asset and click **Publish** .

  - Follow one of these steps to select as asset:
    If you are in the card view, click **Enter Selection** , and click the asset. The asset is selected.
    If you are in the list view, select the checkbox of an asset. The asset is selected.



- When the Publish process starts, a confirmation dialog appears. Click **Publish**. Another confirmation dialog appears listing all the related assets and resources.

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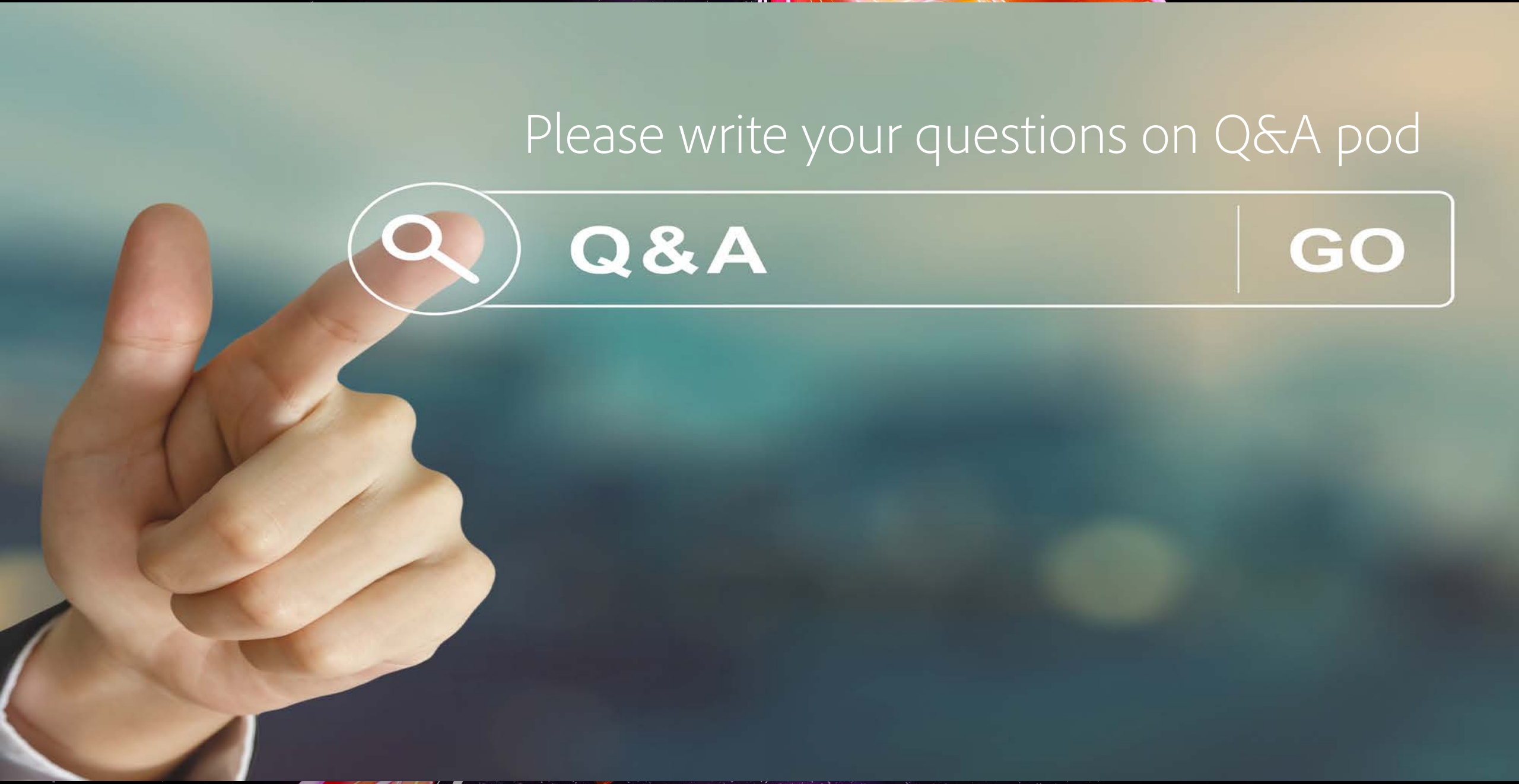
Please write your questions on Q&A pod



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Reference Links:

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- https://helpx.adobe.com/experience-manager/6-3/forms/using/get-xdp-pdf-documents-aem.html
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