

## ACROBAT VS AEM FORMS DESIGNER

### INTRODUCTION

There is ongoing confusion in the market and among customers about the differences between Acrobat forms and AEM Designer forms. This whitepaper aims to clarify these distinctions, outline the trade-offs, and provide guidance on migration and best practices.

*Note: Adaptive Forms are a separate category and will be briefly mentioned for context.*

### DEFINITION & OVERVIEW

#### Acrobat Forms

Acrobat forms, also known as AcroForms, are interactive PDF documents created using Adobe Acrobat Professional. An AcroForm is essentially a traditional PDF file with form fields “bolted on.” They are static, the layout is fixed; they do not support adding/removing fields or reflowing content based on user input.

These forms allow users to enter data directly into fields within a PDF, making them suitable for a variety of data collection and submission scenarios. They are fillable in-browser (with compatible PDF viewers) and supports only basic validation and automation through JavaScript (ECMAScript). Data entered into Acrobat forms can be extracted in various formats, including FDF (Forms Data Format), XFDF (XML Forms Data Format), or exported as plain text/CSV. This enables integration with backend systems for processing and storage.

#### AEM Designer Forms (XDPs)

These are advanced PDF forms created with Adobe Experience Manager Forms Designer (previously Adobe LiveCycle Designer). These forms are based on XML Forms Architecture (XFA) – an XML-based form model embedded in a PDF or used with an AEM Forms server.

It provides support for dynamic layouts (fields and even pages can appear, repeat, or change size at runtime), robust scripting with both JavaScript and FormCalc languages, and the ability to connect to data sources or web services for pre-fill and submission. XFA forms can produce interactive PDFs or be rendered as HTML through an AEM Forms server.

#### Adaptive Forms (for context)

These are forms created in AEM Adaptive Forms, designed for responsive web experiences.

## COMPARISON TABLE: ACROBAT VS DESIGNER FORMS

Choosing the right form technology is essential for balancing ease of use, flexibility, and business requirements. Acrobat PDF Forms (AcroForms) and AEM Designer Forms (XFA Forms) each offer distinct approaches to form creation and management, impacting how documents are designed, maintained, and integrated with broader workflows. The table below highlights key differences and advanced capabilities to help inform your selection.

Feature/Aspect	Acrobat PDF Forms (AcroForms)	AEM Designer PDF Forms (XFA Forms)	AEM Designer HTML Forms (XFA Forms)
Underlying format	Standard PDF	PDF with embedded XML Forms Architecture (XFA), used to generate interactive form layout dynamically.	PDF with embedded XML Forms Architecture (XFA), used to generate interactive form layout to render as an HTML form
Form Design Process	Create visual layout (e.g. Word or InDesign), add form fields using Acrobat's form editor. Layout is fixed once fields are placed. No separate design tool beyond Acrobat Pro.	Designed using AEM Forms Designer application. Entire form (layout and fields) created in one environment. Designers can define subforms that repeat or flow to new pages. Design saved as XDP or PDF.	Designed using AEM Forms Designer application. Entire form (layout and fields) created in one environment. Designers can define subforms that repeat or flow to new pages. Design saved as XDP.
Template Maintenance	This process is comparatively complicated, to make changes, you must update the source file, re-export to PDF, and re-add fields in Acrobat. Layout edits are limited.	You can directly edit all objects in the form, making updates simple and flexible.	You can directly edit all objects in the form, making updates simple and flexible.
Dynamic Layout	It offers a fixed layout, meaning dynamic features, such as responsive adjustments or real-time updates,	Dynamic layout capability. XFA forms can be static (fixed layout) or dynamic (layout adjusts at runtime). Dynamic XFA	Dynamic layout capability. XFA forms can be static (fixed layout) or dynamic (layout adjusts at runtime). Dynamic XFA

	are not supported. More advanced technologies, like those used in AEM Designer, enable responsive and interactive forms, but this system is limited to static content.	allows fields and subforms to expand, shrink, or replicate based on data or user interaction.	allows fields and subforms to expand, shrink, or replicate based on data or user interaction.
Scripting & Logic	Supports JavaScript (Acrobat's variant - ECMAScript) Lacks FormCalc.	Supports JavaScript and FormCalc scripting in Designer. Rich event model (enter, exit, calculate, validate, form ready, etc.).	Supports JavaScript and FormCalc scripting in Designer. Rich event model (enter, exit, calculate, validate, form ready, etc.).
Data Handling & Integration	Data extracted as FDF/XPDF or exported to CSV/Excel. Basic "distribute and collect" feature via email. No built-in connectors to databases or web services.	Data is XML-based, aligns with form's schema. AEM Forms server accepts submitted XFA forms data directly into workflows or binds fields to data sources. Can define data connections for pre-populating or submitting results.	Data is XML-based, aligns with form's schema. AEM Forms server accepts submitted XFA forms data directly into workflows or binds fields to data sources. Can define data connections for pre-populating or submitting results.
Viewer & Platform Support	Broad compatibility. Many PDF viewers support display and filling. Desktop Adobe Reader/Acrobat and most third-party readers support AcroForm fields. Liquid mode is available on mobile in Reader.	Limited standalone support. XFA forms require Adobe Acrobat/Reader on desktop. Most third-party PDF viewers do not support XFA. Static XFA forms have better compatibility, but dynamic features require Adobe Reader, <a href="#">most modern browsers offer only basic</a>	Doesn't require Adobe/Acrobat Reader. Can be rendered in web browser. Can be rendered and cached in AEM Forms Mobile App Can be rendered in AEM Forms App

		<a href="#">support for XFA-based PDF forms.</a> Adobe's mobile PDF reader does not support XFA.	
<b>User Experience &amp; UI Controls</b>	<p>Basic interactivity. Simple user experience – looks like original PDF with fillable fields. Styling limited. Basic field properties (fonts, colors), standard controls (textbox, checkbox, radio, list). No rich UI elements like expandable sections or wizard-like steps. Behaves like digital paper form.</p>	<p>Rich, form-centric experience. Can hide/show parts of form, implement step-by-step flows or interactive sections. Supports more complex field types, dynamic tables, presence toggling. Designers have more control over behavior and validation. Flexible look and feel (print layout or dialog-like). Requires Acrobat/Reader unless rendered as HTML.</p>	<p>Rich, form-centric experience. Can hide/show parts of form, implement step-by-step flows or interactive sections. Supports more complex field types, dynamic tables, presence toggling. Designers have more control over behavior and validation. Flexible look and feel (print layout or dialog-like). Doesn't require Adobe/Acrobat Reader. Can be rendered in web browser.</p>
<b>Longevity &amp; Standard Support</b>	<p>It is legacy technology for basic electronic forms. Adobe's innovation has shifted toward AEM (XFA, Adaptive Forms). AcroForms will continue to work but may not meet modern expectations.</p>	<p>Support is available via AEM Forms, but is becoming less common outside the Adobe ecosystem.</p>	<p>Support is available via AEM Forms, but is becoming less common outside the Adobe ecosystem.</p>

Note: Adobe recommends using Adaptive forms instead of PDFs for forms going forward. Migration strategies are available to transition from XFA based PDFs to Adaptive forms.

## BEST PRACTICES & USE CASES

### When to use AcroForms

Acrobat forms are used for simple data capture that don't require complex forms with dynamic sections and extensive intelligence. They suit basic workflows where forms are emailed or posted online, filled out in a PDF reader or in a web browser, and returned manually, no advanced features or integrations needed.

Typical use cases are,

- Event registrations and sign-ups where participants fill out basic information and submit via PDF.
- Order forms for small businesses, capturing customer requests and preferences.
- Simple surveys or feedback forms that require straightforward data input.
- Membership or subscription applications with standard fields and minimal conditional logic.
- Basic business forms such as contact information sheets or internal requisitions, filled directly in a PDF reader.
- Forms for collecting data that do not need real-time validation or integration with backend systems.
- Situations where recipients are expected to print and submit forms manually or email completed PDFs without automated processing.

### When to use AEM Designer Forms (XFA Forms)

- AEM Designer forms are ideal for data capture scenarios that require dynamic features, integration with backend systems, error prevention, and data accuracy are essential. For example, A government benefits application with conditional sections and rules is best managed with an XFA dynamic form, as it handles everything in one template, unlike AcroForms, which may require multiple PDFs or blank spaces for optional sections.
- A financial account opening form that submits data directly to a database or trigger workflows like account creation or welcome letter generation.
- AEM Designer Forms can also be used for multi-channel customer onboarding, offering a smooth and seamless process on the web by generating HTML5 forms.
- Long-term forms management: large enterprises with hundreds of forms benefit from the AEM Designer Forms platform which provides version control, fragments (reusable pieces of forms), and governance.
- When efficient maintenance and frequent updates are important, XFA-based forms enable you to manage all edits, logic changes, and enhancements within a single tool (Designer),

dramatically streamlining the process compared to AcroForms.

- For scenarios requiring multiple variants, such as state-specific or market-specific forms, XFA templates are ideal. Their dynamic logic allows you to maintain just one template, adjusting content as needed based on user input, rather than juggling numerous separate files.

Additionally, any situation that needs dynamic flows, or complex calculations is a fit for AEM Designer Forms. Many regulated industries (banking, insurance, government) adopted AEM Designer Forms to ensure every form is validated at the point of entry, reducing errors and re-work.

## WHY ACROBAT FORMS ARE NOT ENOUGH

### AcroForms can not handle complex logic

AcroForms were never intended for complex or dynamic form experiences. They were introduced in the 1990s, mainly to replicate paper forms in electronic format. While you can add some scripting, there are serious limitations. For example, you can't add or remove sections on the fly, dynamic behaviours are simply not possible in AcroForms.

By contrast, AEM Designer Forms are designed for complexity. They include a much richer object model and a true programming framework for building advanced form logic. In short, AcroForms offer only a small fraction of what you can achieve with AEM Designer Forms. If your needs are simple, AcroForms may be enough. But as your processes or user expectations evolve, you will quickly notice the limitations of AcroForms.

### True cost of AcroForms

Acrobat is indeed cheaper and simpler for forms in isolation. But one should consider the total cost of ownership and risk of using an outdated approach for critical processes. Using AcroForms may require manual data processing, or introduce security limitations, especially if users must print, complete, and mail forms containing personally identifiable information (PII). These practices can result in significant costs and security risks.

AEM Forms is an enterprise investment, it's more than just the forms themselves. It includes workflow automation, integrations (e.g., directly linking a submitted form to a CRM system), and ongoing support/updates from Adobe. For organizations processing thousands of forms or handling sensitive customer onboarding, the efficiency gains can justify the cost. For example, automating data capture with AEM Forms can save significant labor and reduce cycle times.

### No longer actively updated

Additionally, AcroForms technology has not kept pace with evolving platforms and standards, remaining largely unchanged over time. Organizations aiming to expand their digital services or

integrate with modern Adobe solutions may find AcroForms quickly become a limiting factor. While Acrobat forms might seem sufficient initially, they can easily turn into a bottleneck as business requirements evolve. Many forward-thinking organizations recognize that relying on AcroForms may eventually necessitate a costly and disruptive migration when these forms can no longer meet growing demands.

## Time consuming template management

As highlighted in the table above maintaining an Acrobat form typically requires you to return to the original application used to create the PDF, such as Word or InDesign, to make layout changes. After updating the source document, you must print a new PDF, open it in Acrobat Professional, and re-add all the form fields and logic. Acrobat Professional allows only minor text edits and does not support adding new content to the PDF layout; the overall design is controlled by the source application.

However, with an AEM Designer Form, you have direct access to every object within the form, enabling you to modify any aspect of the layout or field properties from within the Designer environment itself. This streamlines template maintenance, as changes can be made without returning to an external application or reimporting fields, ensuring greater flexibility and control over the form design process.

## APPENDIX

<https://experienceleague.adobe.com/en/docs/experience-manager-learn/forms/document-services/pdf-forms-and-documents>

<https://ideastraining.com/classOutlines/AcroFormsVsXFA.html>