Foxit

WHITE PAPER

Digitalizing the Engineering Industry

Foxit

Introduction

Engineering and construction companies have reams of digital and paper documentation, including CAD drawings, standard operating procedures (SOPs), product specifications and instruction, etc. These documents need to be reviewed and edited numerous times during a project, while also being shared with other departments. For companies who develop applications to make processes easier for this industry, partnering with us could be the answer to all documentation issues you may have. Transferring paper documentation into digital and converting all digital documentation into one consistent format can make engineering and construction processes straightforward. Using the.PDF file format is one way to ensure that review and edit processes are seamless and comprehensive. Digital documents now allow engineers on building sites to spend less time in the office on computers and more time working on the go by annotating through digital devices like tablets and smartphones.

As well as reviews and editing, the engineering industry has many regulations to adhere to, from CAD regulations to archiving to project management. The list goes on. But one thing that they all have in common is that PDF technology has helped engineering and construction software providers make engineering companies compliant with regulations. Foxit's powerful PDF SDK technology can render large documents, like blueprints, flawlessly on any device, making zooming and commenting on the minutest detail possible. ISO 19005-1 ensures that all records archived through PDF/A are preserved long-term, therefore, omitting features that are ill-suited for preservation. Our PDF Software Development Kits (SDKs) allow your company to comply wholly with regulations in your industry.

Industry Leaders That We Already Work With

Industry Challenges

Every industry has its challenges that are unique to them. We have experience working with numerous different engineering and construction solution providers, from small startups to large enterprise businesses. Through this, Foxit has learned about challenges in the industries and can help you to overcome them through creating custom PDF technology solutions for the industry.

Onsite Collaboration

Site visits and audits can bring up unexpected results. Misalignments and unforeseen issues can push projects back days, if not weeks unless a solution can be decided upon quickly. In this case, two things are hugely important to make sure deadlines stay on track: collaboration and speed. Collaboration so that the whole team provides input into the proposed solution and speed to ensure that a solution is timely and that future issues do not arise from this.

Foxit has the solution. Our PDF technology allows users to annotate PDF documents no matter where they are. This ensures that teams can work together quickly to get a project back on track by commenting and marking up documents in real-time. Allowing many users to work on the same material at the same time ensures that feedback is instant and agreed upon quickly. After annotating has been done, the document's author can update the report and start to get the project back on track in no time.

Teamwork Through Devices

Engineers need to carry out site audits daily to make sure that projects are on-track and relay this information to head office so that everyone is on the same page. This means that paper is not the most efficient way to do business. Digital devices are taking over the world, and the engineering industry can be no exception. Engineers can now download blueprints to digital devices, like tablets, which can be zoomed in on and annotated. Once the plan is updated, it can be sent to head office to view and report on.

Foxit has worked with leading engineering solution giants to decrease the use of paper blueprints and increase the use of digital devices that can render blueprints, communicate with head office and allow site workers to be as efficient as office workers throughout the day. Even if the site that engineers are working on is without internet access, employees can download the blueprint when they have internet access and work on it while not connected to the internet. Once the document is updated, it can be

saved and sent to head office when the internet is next available. A great thing about this approach is that the file is nearly ready for archiving as it has been brought online and only needs a few changes to archive it.

Archiving Capabilties

Engineering projects involve a lot of paperwork and diagrams that can often change numerous times during the planning and implementation stages. All this information needs to be archived according to ISO 24517-1:2008 to ensure that it can be appropriately rendered in the future and also is the right versions upon filing.

With many years of experience building archive solutions for enterprise engineering companies, Foxit can develop the right solution for you. Archiving involves converting PDF documents into a specific file format used only for archiving and long-term file preservation. This is known as PDF/A. What makes this different to the standard PDF format is that it prohibits the likes of font linking and encryption which may change or disappear in the future. Therefore you cannot open documents that hold them. This, naturally, would be a dangerous situation for an engineering company if they cannot pull up old projects. Foxit can ensure that industry standard archiving is put in place so your company can provide top-quality archiving solutions for your clients.

High-Quality Blueprint Rendering

Engineers are always looking at blueprints that can be huge in size and minute in detail. While carrying out site audits or project reviews, things will be noted on these blueprints. If held on digital devices, engineers should be able to zoom into the smallest bolt in a little corner of a blueprint to high accuracy to ensure the correct usage of materials at all stages of the project.

Foxit's PDF technology can render even the smallest of details in high definition, allowing users to zoom in and out at will on digital devices to make notes relating to any part of the document means that the blueprint doesn't need to be printed out. Notes can even be deleted or replaced, instead of printing paper documents every morning or when mistakes have been made. There is no need to carry around paper blueprints when engineers can view and update them on their digital device anywhere!

Our Technology Strengths

Foxit works with enterprise engineering solution providers across the world on a daily basis, making sure that all our features are fit for purpose. We rely heavily on customer feedback when working on product upgrades, meaning that we are always in contact with our customers to ensure that they are happy with our products.

Below are features that our customers have worked closely with us to build, ensuring that the features suit their industry and are kept up-to-date with industry standards that are continually changing.

Commenting, Markup and Collaborating

Annotating within a PDF document is a fantastic feature to have. When a company has many employees based across the world, it can be hard for them to work on projects together. With annotations employees can comment and work on the same document at the same time, allowing plans to run more smoothly and work to be more productive. Annotations are an excellent method of communications as it doesn't just let one person have their say in a document; the voice of a group of people are heard through this great feature.

Our annotation module has a wide variety of annotations to choose from, including shapes, stamps, free text, and highlight, to help your team work smarter. With the

availability to develop your PDF viewer, you can choose what annotations are made available in your solution. This ability to pick and choose the right features for your business ensuring that your clients have the right tools to do their job efficiently.

Key benefits

88%
Increase
in Productivity

100%
ISO 24517-1:2008
Compliant

Archiving

Archiving in PDF has become the best practice for companies with large volumes of documents and blueprints that will need to be accessed far into the future. Archiving involved converting PDF documents into a specific file format known as PDF/A. PDF/A ensures that any files you archive will keep their appearance and readability, regardless of which PDF software applications or systems you use to create them. You'll get more predictable, consistent results from PDF/A, because of its ISO-standard compliance, than you will from plain PDF.

The format eliminates a few features that don't work well for long-term archiving, like font linking, encryption, audio, video, and transparency features but these will not have a significant impact in the engineering industry. It does, however, ensure that features like annotations and color management are maintained, which are of great interest to the engineering industry to archive.

Multi-Platform

Using a cross-platform server-based PDF viewer hosted through a browser, annotations, digital signatures and edits can happen in real-time without users needing to send newer versions of PDF documents or refreshing their pages. WebPDF Viewer is a cross-platform solution for displaying, annotating, signing and manipulating PDF documents in a web browser on desktop and mobile devices. As an online solution to organizations, the product is a cloud-based solution which integrates with

all Foxit security features, as well as the ability to edit, annotate, digitally sign and fill out forms. The best part is that it does not require any additional software to be installed locally.

Key benefits

95%
Streamlined Processes

99%
Responsive on Android and iOS Devices

Case Studies

Foxit has helped many engineering companies build powerful PDF technology into their applications so that users can reduce the amount of paper they used.

Codex Software: Tailored Roofing Technology to Get Behind

For 25 years software specialists at Codex Software have been working closely with practitioners to develop software specially tailored for roofing and carpentry companies. They have created mobile applications that can render PDF documents and forms in high quality on any Android or iOS device. Users can edit the file on their device and then send or archive the documents via the app to a central server.

Using PDF technology, Codex Software was able to bring more of their services online, resulting in less physical paperwork and traveling to the office. The ability to ensure employees work in real-time assures that projects finish on time, and reporting is easy.

Conduce Group: Windows 10 Native Application Eliminate Paper In The Cockpit

Once highly dependent on paper forms and manual note-taking, Conduce Group has changed aviation cockpit reporting for the better. Developed for Panasonic ToughPads, a favorite mobile device in aviation, they have developed a UWP app that allows pilots to view and annotate reports on a mobile device which are then emailed to head office to report any faults or issues in real time.

"With the Foxit MobilePDF SDK, we have rapidly incorporated a fully-featured PDF viewer into our app, allowing us to focus on our core mission: eliminating antiquated paper systems." - James Russell, Senior Developer, Conduce Group

To read more customer stories visit our Case Studies.

Start a conversation with us

If you provide solutions for the Engineering industry and are looking to develop an application that can revolutionize the way that your company does things, we would love to hear from you. Send us an email telling us about your project:
https://developers.foxitsoftware.com/support/