

signosoft

WHITE PAPER

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Executive summary

This document describes the use, compatible client platforms, technological features, architecture and possible integration of SignoSoft. The goal of this document is to help the reader understand everything about SignoSoft and its solutions for electronic signatures.

The information is divided into several chapters. General features and perks of the software are explained. Its technological features and client platform compatibility are described, as well as the architecture and integration of the software using API or SDK methods.

SignoSoft is a unique software for electronic signing of PDF documents. The user can sign documents either with a digital signature or a handwritten signature. From a legal perspective, electronic signature is the equivalent of a handwritten signature on paper. Also, when signing with SignoSoft handwritten signature biometric characteristics of the signature are captured. This enables verification of its authenticity by a professional forensic expert in handwritten signatures, making it extremely safe. SignoSoft meets all the international legal requirements for electronic signatures (including eIDAS) making it usable worldwide.

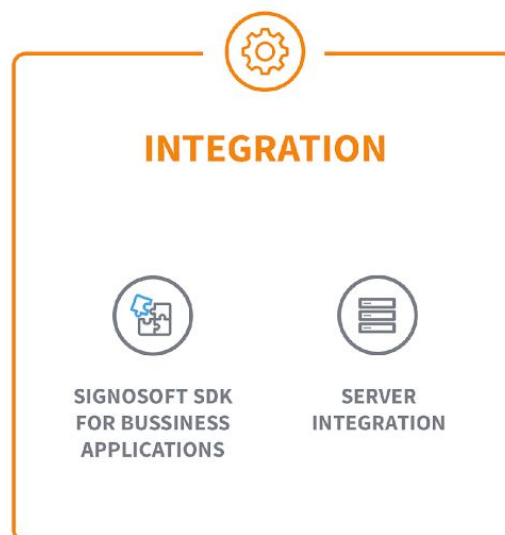
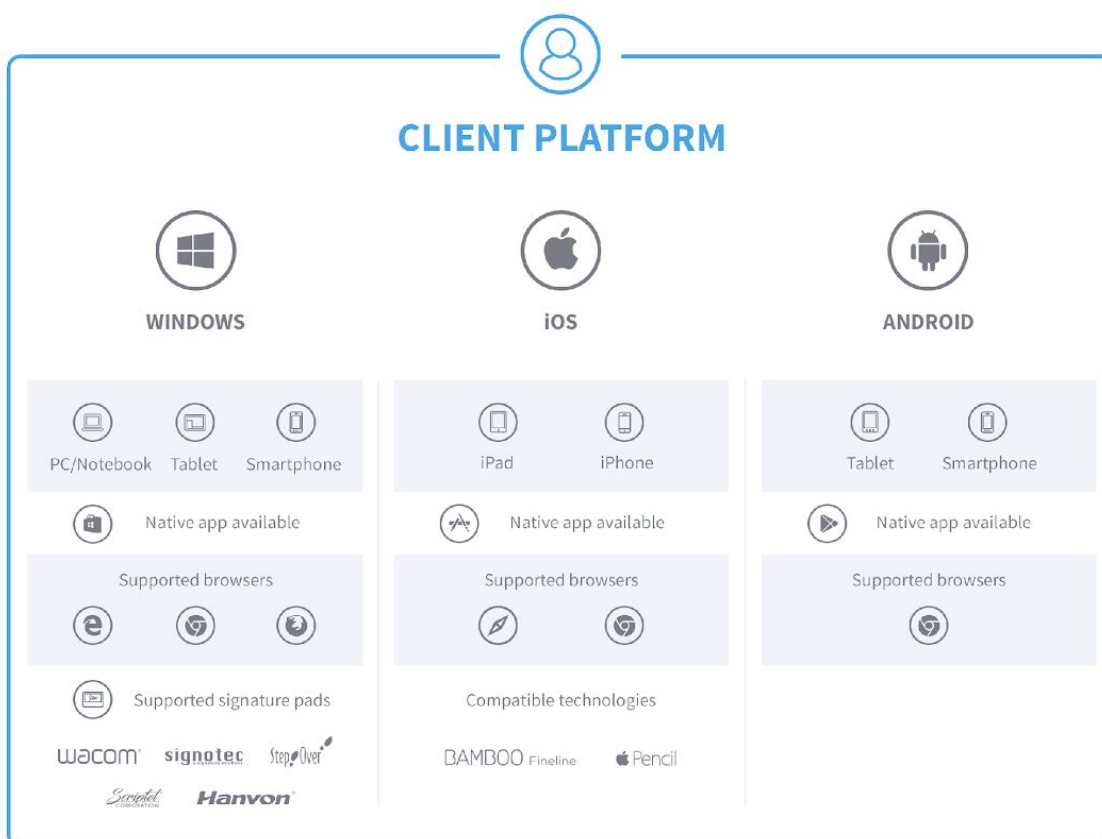
SignoSoft is available both as a native application and a browser application. SignoSoft can be used on computers (also using signature pads), tablets, smartphones and tablet/laptop hybrids. It is compatible with Windows, iOS and Android operating systems. The handwritten signature function is compatible with a wide range of devices including signature pads, Android and iOS tablets, and smartphones. A company can use it to sign documents internally, or with customers externally.

Our complete solution includes document management and all necessary hardware. Using SignoSoft makes the process of signing all documents simpler and faster, capturing the biometric characteristics makes it more verifiable and hence safer. All your documents are well arranged and easily accessible in SignoSoft thanks to its intuitive interface. Finally, using SignoSoft reduces company administration costs and is environmentally friendly. SignoSoft s.r.o. cooperates with forensic experts in handwritten signatures to create a perfectly safe and easy-to-use product.

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1. SignoSoft overview



Overview

The picture on previous page shows an overview of compatible client platforms, available signature technologies and possibilities of integration. Extensive information about all the features is provided in following chapters.

Client platforms - SignoSoft is compatible with Windows, iOS and Android. All platforms support both native application and browser application. In the picture, you can see which devices and signature pads can be used on specific platforms as well as which browsers are compatible. Full information about client platforms and supported devices can be found in chapter two.

Signature technologies – the user can choose between a handwritten signature and a digital signature to sign the document. A touchscreen display or a signature pad is required to capture the handwritten signature. The user uses his or her personal password when signing with the digital signature. Data is encrypted into the PDF file with the signature to make it safe. Specifics of the signature technologies can be found in chapter three.

Integration - SignoSoft can be easily integrated into client's own architecture or application. Integration can be done using two methods – SignoSoft SDK for business applications method or Server integration (API) method. The description of the integration processes can be found in chapter five.

2. Client platforms

2.1 Windows

Computers and laptops

While using SignoSoft on computers or laptops, both digital signature and handwritten signature can be used. A signature pad is necessary to capture the handwritten signature. SignoSoft is compatible with most signature pads used worldwide. SignoSoft can be used as a browser application with Windows 7 and newer, native application is compatible only with Windows 8.1 and newer. Supported browsers for Windows are Chrome, Edge, Explorer and Firefox. Compatibility is limited only by version of the operating system the device uses. Following table shows compatibility with Windows operating systems:



Software compatibility for Windows

Version	Handwritten signature	Digital signature	Browser application	Native application	Online	Offline
Windows 7	✓	✓	✓	✗	✓	✓
Windows 8.1 and higher	✓	✓	✓	✗	✓	✓

Supported signature pads for handwritten signatures

To use the handwritten signature on computers and laptops without a touchscreen, a signature pad is required. SignoSoft is compatible with Wacom, StepOver, Scriptel and Hanvon signature pads. Following table shows information about supported signature pads. SignoSoft provides all devices in the table below at attractive prices.

Model	Picture	Resolution	Pressure levels	Coloring	Dimensions (mm)
Wacom					
STU-300		396x100	512	✗	156 x 127 x 17
STU-430		320 x 200	1024	✗	161 x 174 x 11
STU-520		800 x 480	512	✓	160 x 177 x 16
STU-530		800 x 480	1024	✓	161 x 174 x 11
Scriptel					
ST1571 EasyScript		240 x 64	✗	✗	152,4 x 136,5 x 24,1
ST1550 ProScript		240 x 64	✗	✗	132,1 x 81,3 x 17,3
Sign Pro					
Sign Pro 5		800x480	2048	✓	165x145x16

StepOver					
naturaSign Pad Colour 2.0		640 x 480	1024	✓	185 x 170 x 120
naturaSign Pad Mobile		320 x 160	512	✗	163 x 131 x 9,5
naturaSign Pad Flawless		480 x 272	512	✓	155 x 130 x 8
duraSign Pad Brillance		800 x 480	1024	✓	200 x 173 x 17
naturaSign Pad Comfort		480 x 272	512	✓	163 x 131 x 9,5
naturaSign Pad Classic		320 x 85	512	✗	150 x 120 x 10

2.2 iOS

SignoSoft is compatible with iPads and iPhones. Browser and native application are available. Supported browsers for iOS are Safari and Chrome. Following table shows software and hardware compatibility with iOS devices:

Software compatibility							
Device	iOS version	Handwritten signature	Digital signature	Browser application	Native application	Online	Offline
iPad	9 and higher	✓	✓	✓	✓	✓	✗
iPhone	9 and higher	✓	✓	✓	✓	✓	✗
Hardware compatibility							
Device	Compatible models						
iPad	iPad 3 and all newer versions (including all iPad Mini and iPad Pro versions)						
iPhone	All devices supporting iOS 9 and higher						

iPads

iPad 3 and all newer models are compatible with SignoSoft. iOS 9 and newer is required. Both digital signature and handwritten signature can be used on all supported devices. Browser and native applications are available for all devices as well.

All supported iPads can capture pressure during the handwritten signature while used with a pen. You can find a table showing which pen is required for which iPad model in the *pressure capturing tablets* table:

Pressure capturing iOS tablets		
Manufacturer	Models	Compatible pen
Apple	iPad 3,4	Wacom Bamboo Fineline 3
Apple	iPad Mini 1,2,3,4	Wacom Bamboo Fineline 3
Apple	iPad Air 1,2	Wacom Bamboo Fineline 3
Apple	iPad 5	Wacom Bamboo Fineline 3
Apple	iPad Pro 12.9, 10.5, 9.7	Apple Pencil

iPhones

SignoSoft can be used on all iPhones which support iOS version 9 and higher. Both handwritten signature and digital signature can be used. You can download our native application from AppStore or use the browser application. Offline version for iPhones is not available, internet connection is required to use SignoSoft.

2.3 Android

SignoSoft is compatible with a wide variety of android devices. The following table shows software and hardware compatibility with Android:

<i>Software compatibility</i>							
Device	Android version	Handwritten signature	Digital signature	Browser application	Native application	Online	Offline
Tablets	5.1.1 and higher	✓	✓	✓	✓	✓	✓
Smartphones	5.1.1 and higher	✓	✓	✓	✓	✓	✗
<i>Hardware compatibility</i>							
Device	Compatible models						
Tablets	All devices supporting Android version 5.1.1.						
Smartphones	All devices supporting Android version 5.1.1.						

Android tablets

SignoSoft is compatible with all Android tablets supporting Android version 5.1.1. and higher. For all compatible Android tablets, both handwritten signature and digital signature can be used. Both browser and native applications are available, online as well as offline usage is possible.

Some of the Android devices are also capable of capturing pressure of the handwritten signature with a specific tablet pen. Pressure capturing Android devices can be found in the following table:

<i>Pressure capturing Android tablets</i>		
Manufacturer	Model	Compatible pen
Samsung	Galaxy Tab S3	Samsung S-pen
Samsung	Galaxy Note 10.1	Samsung S-pen
Samsung	Tab A 9.7	Samsung S-pen
Samsung	Galaxy Tab Active 2	Samsung S-pen

Android smartphones

SignoSoft is compatible with all Android tablets supporting Android version 5.1.1 and higher. Both handwritten signature and digital signature can be used. You can download our native application from Google Play or use the browser application. Offline version for Android smartphones is not available, internet connection is required to use SignoSoft.

3. Signature technologies

SignoSoft offers a choice of two signatures – handwritten digital signature and digital signature. The owner of the document can choose the required type of signature, or let the signer decide which type will be used. Both signature types can be used at the same time as well.

Our signatures adhere the eIDAS regulations, making them legally equivalent to a handwritten signature on paper. They are based on PKI standards to ensure perfect security and validation.

Handwritten signature

Handwritten digital signature can be captured through a touchscreen using your finger/pen or through a signature pad. SignoSoft captures the biometric characteristics of the signer and then encrypts them into the signature, making it extremely safe. The captured static and dynamic characteristics are peaks, crosses, curves, loops, closed areas, speed, and time length of the signature. Some devices are also able to capture pressure during the signature, making it even safer. You can find all pressure supporting devices in the *client platforms* chapter. Our handwritten signature is an advanced electronic signature by eIDAS standard.

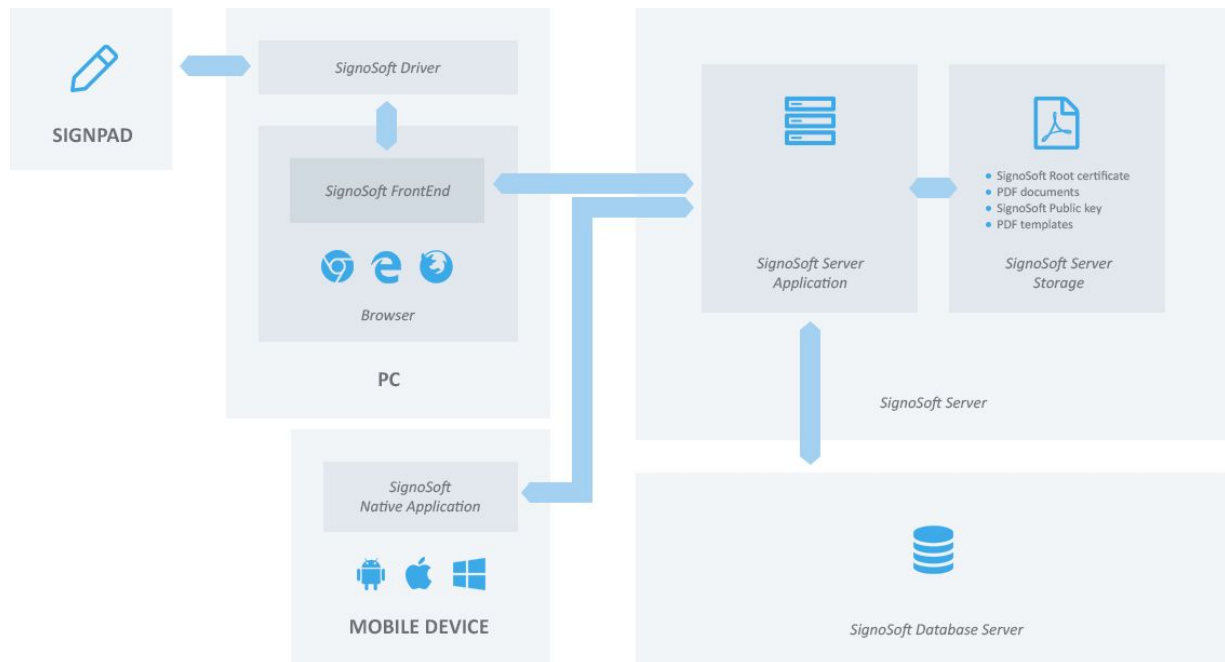


Digital signature

While signing with digital signature, the signer signs the document using his or her personal password, creating the signature. This method is fast, safe and simple. Similar to the handwritten signature, data is encrypted into the signature to ensure security and validation.



4. Architecture



The table shows the architecture of SignoSoft. The architecture is divided into two parts – the server part and the client part.

The SignoSoft server part consists of the SignoSoft Server Application, the SignoSoft Server Storage and the SignoSoft Database. The SignoSoft Server application is deployed as a WAR file to an Apache Tomcat application server. This Java EE application serves requests from the client application, communicates with the SignoSoft database and stores necessary data on the SignoSoft Storage.

SignoSoft client part is realized:

1. SignoSoft browser application - JavaScript for browsers is currently supporting Microsoft Edge and Google Chrome. If used with signature pads, the SignoSoft driver must be installed. The SignoSoft driver connects with the signature pad on the demand of the frontend application, captures the signature, secures captured data and transfers data to the SignoSoft Server.
2. SignoSoft Native application - for Android, iOS and Windows 8.1 and higher displays GUI, captures signature data, secures it and transmits it to the SignoSoft Server.

5. Integration

SignoSoft can be easily integrated into client's architecture or application. Integration can be done using the Software Development Kit (SDK) method or the Server integration (API) method. SignoSoft provides all the necessary modules to make the integration simple and fast. This chapter explains both integration methods in detail.

4.1. SDK components for business applications method

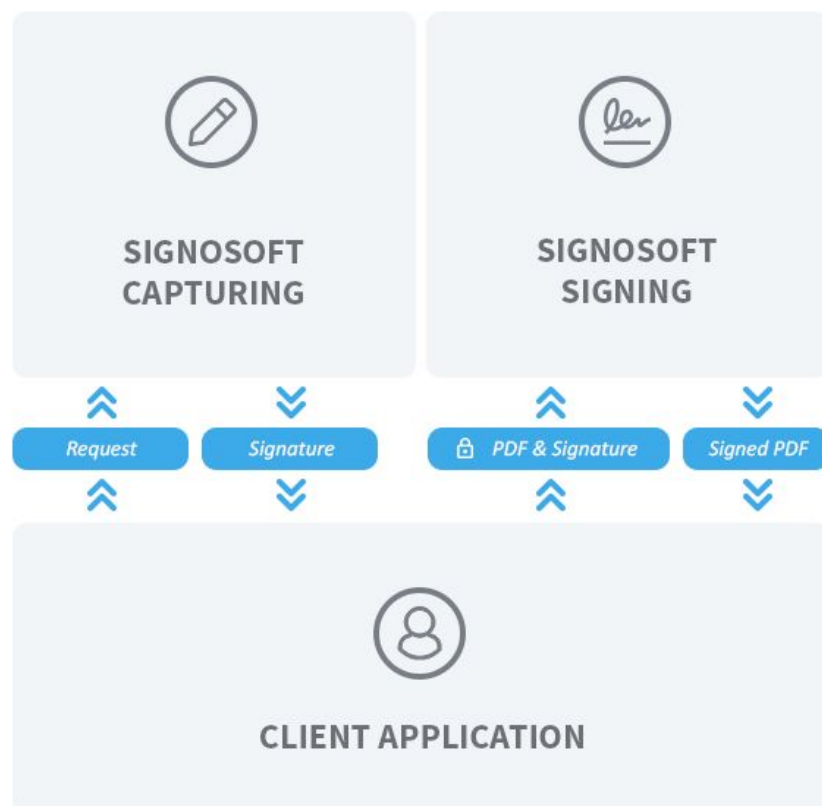
The SDK method is the integration at the lower level of structure. SignoSoft provides all the necessary programming components. The customer includes provided SDK components into their code.

In detail, SignoSoft provides the customer with SignoSoft Capturing libraries for the chosen programming language as well as SignoSoft Signing libraries.

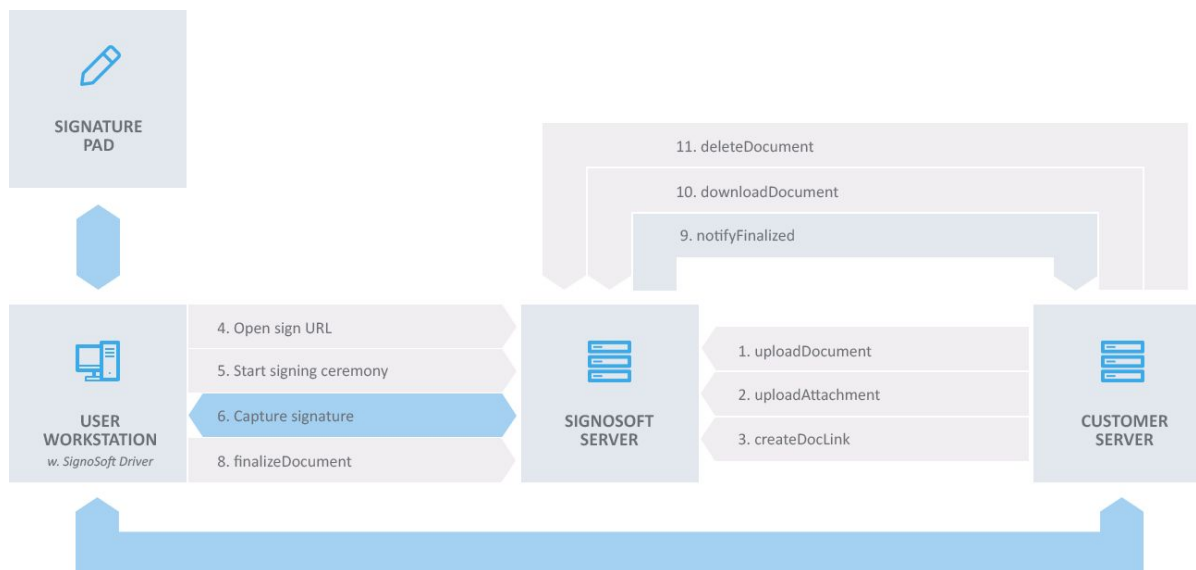
For capturing biometric data, SignoSoft Capturing libraries are available for Android in Java and for iOS in Objective C / Swift. For inserting the signature into the document, SignoSoft Signing libraries are available in Java.

The process is following:

- 1) The customer application calls the Signosoft Capturing library. The library returns the object of the signature.
- 2) The object of the signature together with the document are then sent to the Signosoft Signing library.
- 3) The Signosoft Signing library connects the document with the signature.



4.2. Server integration (API) method



Server integration using the API method is the integration on the higher level of structure. As the image above shows, usage of API methods should be following:

1. Customer's server calls uploadDocument API method. This method saves passed document data to the SignoSoft database and returns the document ID and document token for further use.
2. Customer's server can call uploadAttachment API method. This method adds passed attachment to specified document. Data are inserted as a PDF attachment directly to document, and stored in SignoSoft Database.
3. Customer's server calls createDocLink API method. This method based on passed document ID will generate URL, where the GUI with document is created. Customer's server is supposed to redirect user to this SignoSoft URL.
4. User using SignoSoft GUI can edit and sign the document. After all signatures are signed, the user can hit the Finalize button.
5. After the Finalize button is hit, SignoSoft Server signs the document with configurable certificate and configurable timestamp and calls configurable URL with REST webservice passing ID of the document finalized.
6. Customer's server can call downloadDocument API method, specifying document ID to be downloaded and if the document is about to be flattened.
7. After document is transferred to customer's server, deleteDocument API method can be called to remove the document from the SignoSoft server.

6. Try Signosoft

To try how SignoSoft works for **free**, visit our website www.signosoft.com

We are pleased to give you more information about our product or individual offers.
If you are interested in our solution, please do not hesitate to contact us at:

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