

PDF Digital Signing Tool 3.0

A Feature-rich Workplace Solution with Intuitive signer interface

PDF Digital Signing Tool 3.0 has been built on latest technology using JavaFX with enhanced features, improved and intuitive signer interface. This new version facilitates digitally signing of the electronic documents (pdf) by reading Digital Certificates (X.509) from USB token provided by the Certifying Authority.



With the emergence of Digital India and success of various initiatives under the programme, the electronic signatures have gained acceptability as a

trustworthy signing mechanism for maintaining identity, authenticity and security of the electronic documents and transactions.

Digital Signature is the subset of the electronic signatures that uses Public Key Infrastructure (PKI) to digitally sign an electronic document and provide assurances of the evidence to provenance of identity of signer and integrity of the document. This means that the content of the document cannot be altered after signing and the receiver of a document is assured of the signer authenticity.

The Information Technology Act, 2000 and subsequent amendments provides the required legal sanctity to the digital signatures based on asymmetric cryptosystems.

DIGITAL SIGNATURES VS PHYSICAL SIGNATURES

A physical signature (also called ink or wet signature) can be applied on a paper



document only and can be replicated from one document to another by copying the image manually or digitally. But to have credible signature copies that can resist some scrutiny is a significant manual or technical skill and to produce ink signature copies that resist professional scrutiny is very difficult. Also in a physical paper document, there is always a concern about its durability.

Digital Signatures use Digital Signing Certificate to establish an electronic identity to an electronic document. The Digital Signature cannot be copied to another document. Paper contracts sometimes have the ink signature block on the last page, and the previous pages may be replaced after a signature is applied. Digital signatures can be applied to the entire document, such that the Digital Signature on the last page will indicate tampering if any data on any of the pages have been altered (However, this can also be achieved by signing with ink on all pages of the contract). Additionally, Digital

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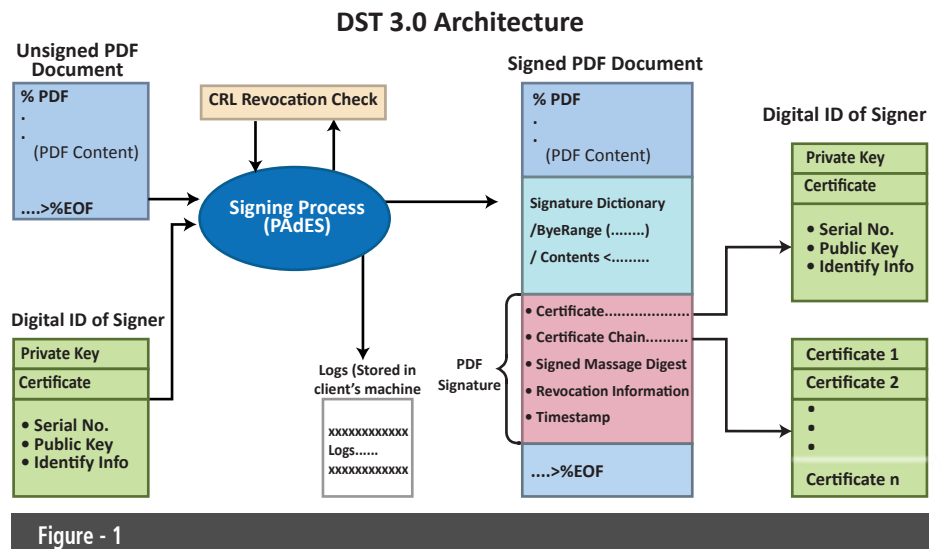


Figure - 1

HOW THE TOOL WORKS

Figure-2, depicts the working of the Digital Signing Tool. Digital Signing Tool version 3.0 checks CRL before signing the document. In this, CRL Distribution Point (CDP) will be picked while signing. If CRL file already exists at the user home directory location, it will simply check revocation status and proceed but if file is not updated, it will use the internet and download the latest file and proceed to put signature on PDF. If due to any reason, CRL checking is not performed, it will not allow the signer to sign the document.

SIGNING THE PDF FILES

The signer is prompted to provide the PDF file(s) for signing and the folder location where the signed document to be stored with some optional parameters as follows:

SIGNATURE VISIBILITY

This is related to appearance of signature on the document. Documents with invisible Digital Signatures carry a visual indication of a blue ribbon on the task bar. One can use visible Digital Signatures if one does want to display the signature, but only needs to indicate the authenticity of the document, its integrity etc.

COPY SIGNATURE

Placing image of Digital Signature on all

pages of signed PDF file. By default signatures will appear only on first page of pdf file.

CAPTURE CO-ORDINATES

Signer can select the location where he wants to place the signature image.

MULTIPLE SIGNATURES ON SINGLE PDF

More than one signer can put their Digital Signatures on a previously digitally signed paper. **Figure-3** shows the signatures of single and multiples signers in a single document.

BULK SIGNING

Signer can sign more than one pdf with a single click using bulk signing option. Further, user can select coordinates on single pdf and signatures will appear at same location in all PDF's. Signature visibility and signature appearance on all pages can be controlled through options provided in the form (**Figure-2**).

Digital Signing Tool version 3.0 checks Certification Revocation List(CRL) before signing the document. In this, CDP point will be picked while signing, if CRL file already exists at the user home directory location, it will simply checks revocation status and proceed but if file is not updated, it will use the internet and

download the latest file and proceed to have signature on PDF. Due to any reason if CRL checking is not performed, it will not allow the signer to sign the document.

CONFIGURATION

A simple interface to set limit on maximum number of PDF files that can be signed in Bulk signing (**Figure-3**).

Maximum number of signatures that can be carried on one PDF is also configurable.



Figure - 4

VIEW SIGNATURE DETAILS

Another simple interface where signer can view signers' details of signed PDF.

HOW TO OBTAIN THE TOOL

Digital Signing Tool 3.0 will be made available in e-Gov App Store by the mid of May, 2018. After downloading the tool, it can be easily installed like any other Desktop Application depending on the platform. It has a simple interface with four tabs as in **Figure-5**.

REQUIREMENTS

The tool uses Java FX & JCA and requires Java 8 in the client machines. It will be supported on Windows, Linux and MAC clients that have Java 8.

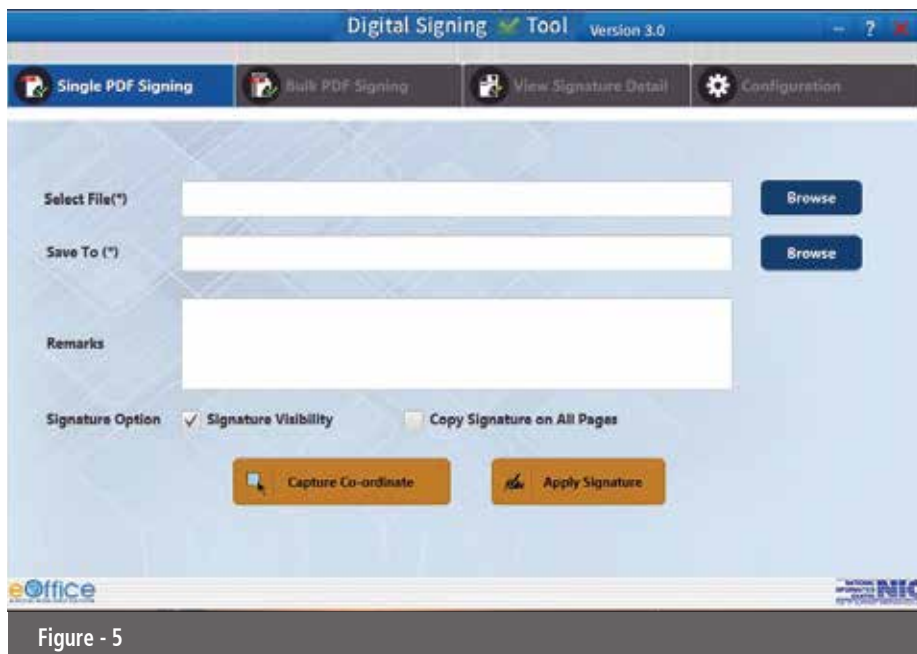


Figure - 5

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