Digital Signature

User Manual For Document Signing in PDF





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1. PREREQUISITES

- CryptoID SDK / HyperPKI_HPY2003 Token Manager
- Certificate is enrolled inside CryptoID
- Adobe Acrobat

2. DIGITALLY SIGN ADOBE ACROBAT DC

a) Open Adobe Acrobat, follow these steps: Click on **Menu** then **Preferences**

Menu Menu	Open_	Ctrl+O	mand And Su
All tools	Open recent <u>fi</u> les	>	
	Create PDF		
All tool	Com <u>b</u> ine files		
	Save	Ctrl+S	
La Exp	S <u>a</u> ve as	Shift+Ctrl+S	
Edi	Convert to Word, Excel or Po	werPoint	
-	Sa <u>v</u> e as Text		
년 Cre	Protect Using Password		
ET Col	Request e-signatures		
	Share file		
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E Ad	Search	>	
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T Ree	Disable new Acrobat Reader		
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🔒 Pre	Help	,	
0	Preferences	Ctrl+K	
Ca Fill	Protection	>	
Conve	Document properties	Ctrl+D	
	Exit application	Ctrl+Q	

Preferences

ommenting	Security
ocuments	Configure Service Setting
ull Screen	Conligure server settings
eperal	Timestamp Servers
age Display	Mor <u>e</u>
Sec Display	Directory Servers
ccessibility	
dobe Online Services	
nail Accounts	
orms	Security Settings
entity	
ternet	Import Export
vaScript	
nguage	✓ Load security settings from a server
easuring (2D)	URL:
easuring (3D)	
easuring (Geo)	Settings must be signed by: Allow Any Certificate
ultimedia & 3D	growse_
ultimedia (legacy)	Check every: Week Month
ultimedia Trust (legacy)	
ading	✓ 2 weeks ✓ 2 Months ✓ Ask before updating
viewing	
arch	Adobe Experience Manager Document Security
curity	
curity (Enhanced)	Clear remembered account information
gnatures	ciest terrenteer te become priorination.
elling	
ocker	Microsoft Purview Information Protection
ust Manager	
hits	
	Clear remembered account information

Click Security (Enhanced), make sure select the same options as the image shown :

ammenting	Disable the protect mode	
ommenting	Enable Protected Mode at startup	Italher Create Protected Mode log file View log
- Canada	Protected View @ Off	
ull Screen	Protected view Off	
ieneral .	 Files from potentially unsafe locations 	
age Display	○ All files	
ccessibility		
dobe Online Services	Enhanced Security	
mail Accounts	Contraction Contraction	Constitution for the film
orms	C Enable Enhanced Security	Cross domain log file <u>view</u>
lentity /	4	
iternet	Privileged Locations	
avaScript	If your workflows are negatively impacted by security settings, use Privil	eged Locations to
anguage	selectively trust files, folders, and hosts to bypass those security setting r	restrictions.
feasuring (2D)	Privileged Locations allows you to work securely while granting trust to i	items in your
leasuring (3D)	workflow.	
leasuring (Geo)	Automatically trust documents with valid cotification	
ultimedia & 3D	Automatically trust documents with valid certification	
lultimedia (legacy)	Automatically trust sites from my Win OS security zones	w. Windows Trusted Sites
ultimedia Trust (legacia)	Automatically trust sites non-my win os security zones	ew windows indsted sites
eading	1	
eviewing		
earch	Adobe Acrobat	
curity //		
scurity (Ephanced)	Disabling Protected	d Mode also disables Protected View and
anatures	AppContainer. For	changes to take effect, you need to
gnatures	manually restart the	e application.
pelling	Are you sure you w	ant to continue?
racker		
rust Manager		
rust Manager nits		Yes No
rust Manager Inits	Add File Add Folder Path Add Host	Yes No Remove
rust Manager nits	Add File Add Folder Path Add Host	Yes No Remove
rust Manager nits	Add File Add Folder Path Add Host What is Protected View? What is Enhanced Security? What are Privilence	Yes No Remove
ust Manager nits	Add File Add Folder Path Add Host What is Protected View? What is Enhanced Security? What are Privilege	Remove

 \times

After the settings, restart your Adobe, then click **Edit-preferences**, click **Security** (**Enhanced**), you can see the page is shown like this:

ferences		
Categories:	Sandbox Protections	
Commenting Documents	Enable Protected Mode at startup	
Full Screen General	Protected View Off	
Page Display	Hies from potentially unsafe locations	
Accessibility		
mail Accounts orms	Enhanced Security	N
dentity nternet	Privileged Locations	
avaScript anguage Aeasuring (2D)	If your workflows are negatively impacted by security settings, use Privileged Locations to selectively trust files, folders, and hosts to bypass those security setting restrictions. Privileged Locations allows you to work securely while granting trust to items in your workflow.	
Aeasuring (3D) Aeasuring (Geo) Aultimedia & 3D	Automatically trust documents with valid certification	
Aultimedia (legacy) Aultimedia Trust (legacy)	Automatically trust sites from my Win OS security zones View Windows Trusted Sites	
leading		1
earch		
ecurity ecurity (Enhanced)		
ignatures		
racker		
rust Manager		
inds.		
		_
	Add File Add Folder Path Add Host Remove	
	What is Protected View? What is Enhanced Security? What are Privileged Locations?	
	OK Cancel	

Then click **Signatures**, Select **More** on the Identities & Trusted Certificates. (Only for users using Crypto ID Certificate Utility)

ferences		
Categories:		
Commenting	Digital Signatures	
Documents	Creation & Appearance	
Full Screen		
Seperal	 Control options for signature creation 	More
Page Display	Set the appearance of signatures within a document	
Accessibility	Verification	
Adobe Online Services		
mail Accounts	 Control how and when signatures are verified 	More
orms		
Identity		
nternet	Identities & Trusted Certificates	
avaScript		
anguage	 Create and manage identities for signing 	More
Measuring (2D)	 Manage credentials used to trust documents 	
Measuring (3D)		
Measuring (Geo)	Document Timestamping	
Multimedia & 3D	counter measuring	
Multimedia (legacy)	Configure timestamp server settings	More
Multimedia Trust (legacy)		WOI C
Reading		
Reviewing		
earch		
ecurity		
ecurity (Enhanced)		
ignatures		
Spelling		
racker		
rust Manager		
Jnits		
		OK Cancel



Unfold Digital IDs, select PKCS#11 Modules and Tokens:

Then click Attach Module:

Digit	al Signatures	
Commenting Documents Full Screen General Page Display Accessibility Adobe Online Service Email Accounts	ID Accour Files Digital IDs	×
Forms PKCS#11 Identity Internet Trusted Certi JavaScript Language Measuring (2D)	Modules a ficates Manage PKCS#11 Modules	tur.
Measuring (3D) Measuring (Geo) Multimedia & 3D Multimedia (legacy) Multimedia Trust (leg Reading Reviewing Search Security	This is a list of loaded PKCS#11 modules. You can load additional modules new cryptographic devices	to gain access to
Security (Enhanced) Signatures Spelling Tracker Trust Manager		

If your Windows Operation System is 64bit, and your Adobe is 64bit as well, then you need load library from C:\Windows\System32\CryptoIDA_pkcs11.dll

	Digital Signature	es				
Commenting Documents	Digital ID and Trusted Certifi	cate Settings				×
Full Screen General	Locate a PKCS#11 Module					×
Page Display	$\leftarrow \rightarrow \cdot \uparrow \square \rightarrow$ This	PC → sys (C:) → Windows → SysW	/OW64 >	✓ Č ,○ Sear	ch SysWOW64	
Accessibility Adobe Online Service	Organise 👻 New folder				== •	0
Email Accounts	System32 ^	Name	Date modified	Туре	Size	^
orms	x64	🗟 cryptnet.dll	2021/6/1 14:06	Application exten	142 KB	
dentity	x64	Cryptngc.dll	2022/2/7 10:13	Application exten	337 KB	
avaScript		CryptolDA_pkcs11.dll	2022/6/17 13:03	Application exten	511 KB	
anguage	This PC	🔄 CryptoWinRT.dll	2021/6/1 14:05	Application exten	273 KB	
feasuring (2D)	3D Objects	🗟 cryptsp.dll	2021/6/1 14:06	Application exten	67 KB	
leasuring (3D)	Desktop	Crypttpmeksvc.dll	2022/2/7 10:13	Application exten	77 KB	
leasuring (Geo)	Documents	🗟 cryptui.dll	2021/6/1 14:06	Application exten	231 KB	
fultimedia (legacy)	Downloads	cryptuiwizard.dll	2021/6/1 14:06	Application exten	102 KB	
Aultimedia Trust (leg	h Music	cryptxml.dll	8019/12/7 17:09	Application exten	97 KB	
eading	Dictures	scapi.dll	2021/6/1 14:06	Application exten	40 KB	
eviewing	in and	scdll.dll	2021/6/ 14:06	Application exten	22 KB	
earch	Videos	🗟 cscobj.dll	2021/6/1 14:07	Application exten	198 KB	
ecurity ecurity (Enhanced)	sys (C:)	ctl3d32.dll	2019/12/7 17:09	Application exten	27 KB	
Signatures	🕳 job (D:)	d2d1.dll	2021/6/1 14:05	Application exten	5,246 KB	
Spelling	▲	🕥 d2d1debug3.dll	2021/6/1 13:56	Application exten	425 KB	~
fracker	File nar	me: CryptoIDA_pkcs11.dll		PKCS#11	modules (*.DLL)	~
Frust Manager	10000			×		
Units				Oper	n Cano	el

If your Windows Operation System is 64bit, and your Adobe Acrobat version is 32bit, then you need to load library from C:\Windows\SusWOW64\CryptoI DA_pkcs11.dll

-	Digital Signature						
Lommenting Documents	🔒 Digital ID and Trusted Certific	ate Settings				×	
Full Screen General	Locate a PKCS#11 Module					×	
Page Display	🗧 🔿 👻 🛧 📙 🤉 This I	PC → sys (C:) → Windows → Sys	WOW64 >	ר פֿו גע אין	ch SysWOW64		
Accessibility Adobe Online Service	Organise 🔻 New folder					10	
Email Accounts	System32 ^	Name	Date modified	Туре	Size	^	
orms	x64	Cryptnet.dll	2021/6/1 14:06	Application exten	142 KB		-
entity	x64	cryptngc.dll	2022/2/7 10:13	Application exten	337 KB		
waScrint		CryptoIDA_pkcs11.dll	2022/6/17 13:03	Application exten	511 KB		
anguage	This PC	CryptoWinRT.dll	2021/6/1 14:05	Application exten	273 KB		
easuring (2D)	3D Objects	Cryptsp.dll	2021/6/1 14:06	Application exten	67 KB		
easuring (3D)	E Desktop	crypttpmeksvc.dll	2022/2/7 10:13	Application exten	77 KB		
easuring (Geo)	Documents	Cryptui.dll	2021/6/1 14:06	Application exten	231 KB		
ultimedia & 3D	Downloads	cryptuiwizard.dll	2021/6/1 14:06	Application exten	102 KB	-	-
ultimedia Trust (leg	h Music	Cryptxml.dll	8019/12/7 17:09	Application exten	97 KB		
ading	Distance	🗟 cscapi.dll	2021/6/1 14:06	Application exten	40 KB		
eviewing		scdll.dll	2021/6/14:06	Application exten	22 KB		
earch	Videos	scobj.dll	2021/6/1 14907	Application exten	198 KB		
ecurity	骗 sys (C:)	ctl3d32.dll	2019/12/7 17:09	Application exten	27 KB		
ecurity (Enhanced)	🛶 job (D:)	d2d1.dll	2021/6/1 14:05	Application exten	5,246 KB		
pelling	×	d2d1debug3.dll	2021/6/1 13:56	Application exten	425 KB	~	
acker	File nam	e: CryptoIDA_pkcs11.dll		PKCS#11	modules (*.DLL)	~	
rust Manager Initr				A One	Car	ncel	
L				ope			

Then you can see CryptoID Module is Loaded. (here my Adobe is 63 but, thus I loaded library file from C:\\Windows\System32\CryptoIDA_pkcs11.dll, If your Adobe is 32Bit, you should load from another path, check the content above)

Then unfold the **PKCS#11 Modules and Tokens**, click **Longmai PKCSII# Library**, then click **Login** button. Input your token password and then click **OK**.

Documents Full Screen General Page Display Accessibility Adobe Online See Famil Accounts Forms Forms Forms General Janguage Measuring (2D) Multimedia (lega Multimedia (lega Multimedia (lega Multimedia Trust Reading Search Security Securi	Commenting	🔒 Digital ID and Trusted Certific	ate Settings				×
Accessibility Adobe Online Ser Fimil Accounts Forms Identity Internet JavaScript Language Measuring (2D) Measuring (2D) Measuring (3D) Measuring (3D) Multimedia & 3D Multimedia & 3D Multimedia Trust Reading Reviewing Security Security (Enhance Signatures Spelling Trust Manager Units	Documents Full Screen General Page Display	 Digital IDs Roaming ID Accour Digital ID Files 	Change Password Log Token Label mToken CryptolD	Status Logged out	Nefresh		More
JavaScript Indescript Language Trusted Certificates Token Label: mToken CryptoID ai(TMS) ai(TM	Accessibility Adobe Online Ser Email Accounts Forms Identity Internet	Windows Digital IDs V PKCS#11 Modules a V Logmai PKCS11#			×		More
Multimedia Trust Multimedia Trust Reading Reviewing Search Security Security (Enhance Signatures Spelling Tracker Trust Manager Units	JavaScript Language Measuring (2D) Measuring (3D) Measuring (Geo) Multimedia & 3D	mToken Crypt Trusted Certificates	Token Label: mToken Cryptol Password:	D	en CryptoID iai(TMS) oIDA 'B4E0F3F0.	41	More
Tracker Trust Manager Units	Multimedia (lega Multimedia Trust Reading Reviewing Search Security Security (Enhance Signatures Spelling	- 	OK	Cancel			More
	Tracker Trust Manager Units						

Now you can use Adobe Sign PDF.

- b) Open a PDF file via Adobe Acrobat Reader DC, and make sure the Token is connecting to the computer.
- c) On the Left hand side there an All Tools Panne lover there Click **View more** and select Use a Certificate.

d) Then will auto back to the document page. Select **Digitally Sign**, a promt box appears

e) Then Click **OK**, Draw an area to show as Digital Signature.

g)

f) Release Your mouse, the **Sign with Digital ID** will pop up. All certificates in the computer and CryptoID will be listed out. Select the certificate on CryptoID and click **Continue**.

Sign with	a Digital ID		×
Choose the	Digital ID that you want to use	e for signing:	Refresh
	pengdongdong@longmai. Issued by: corp-WIN-9VRCIN49N	com.cn (PKCS#11 device) IKN-CA, Expires: 2024.06.17	View Details
	asd@longmai.com.cn (PKCS lssued by: corp-WIN-9VRCIN49N	5#11 device) IKN-CA, Expires: 2024.06.17	View Details
•	TEST RSA (PKCS#11 device) Issued by: TEST RSA, Expires: 203	5 <mark>.12.30</mark>	View Details
⑦ lick Sign Sign as "	TestCLIENT_sig"	onfigure New Digital ID	Cancel Continue
Appearanc	e Standard Tout	v	Create
Te El	estCLI NT si	Digitally TestCLI Date: 20	signed by ENT_sig 19.09.06) +08'00'
	cument after signing	9 10.12.20	View Certificate Detail:
man markets at a			
Review doo	cument content that may affec	t signing	Review

- 📕 Save As × Search Desktop ~ v 0 ø New folder . Organise 🕶 Date modified Size Name Туре This PC Office 2013 X86 EN 13/08/2018 18:23 File folder 3D Objects Smart X1 VB File folder 12/08/2019 11:31 Desktop SmartX3 V3.0 B20190318 02/08/2019 11:41 File folder Documents WIN10激活工具 14/05/2019 16:31 File folder Downloads < File name: test.pdf ~ Save as type: Adobe PDF Files (*.pdf) ∧ Hide Folders Save Cancel
- h) Save the file as a backup, here we name it test.pdf, click Save

i) After saving the file you will be required to enter you PIN for your digital signature

		1	2
\$ %	indows Security		×
Smar	Card		
Please e	nter your authentication	PIN.	
	PIN		
	Click here for more info	ormation	
		Sindion	
	ОК	Cancel	

j) After Entering your PIN then your Digital sign will appear

3. ADD CERTIFICATES AS TRUSTED CERTIFICATES

At last, if you are worrying about the alert *At least one signature has problems*. Don't worry, it is not the certificate issue. It means the certificate is not trusted by your computer. You can click the signature stamp, then a panel will show up. Signature Validation Status

 The document has not The signer's identity is up 	been modified since this signature w Inknown because it has not been inc	as applied. Iuded in your list
trusted certificates and n	one of its parent certificates are trust	ed certificates.

2. Click Signature Properties...

ignature Properties	×
Signature validity is UNKNOWN.	
Signing Time: 2013/01/06 18:47:59 +08'00'	
Validity Summary	
The document has not been modified since this signature was applied.	
The certifier has specified that Form Fill-in, Signing and Commenting are allowed for this document. No other changes are permitted.	
The signer's identity is unknown because it has not been included in your list trusted certificates and none of its parent certificates are trusted certificates.	of
Signing time is from the clock on the signer's computer.	
Signature was validated as of the signing time: 2013/01/06 18:47:59 + 08'00'	
Signer Info	
Path validation checks were successful.	
Revocation checking was not performed.	
Show Signer's Certificate	
Advanced Properties Validate Signature Close	

lowing	shown.	ł	Please		exercise	cau
rtificate Viewer					×	ć
This dialog allows you to view the selected entry. Multiple is trust anchor.	the details of a certi suance chains are be ound	ficate and its en ing displayed be	tire issuance cha cause none of th	in. The detail e chains wer	s correspond to e issued by a	
Test CLIENT 01 (0100109100	Summary Details	Revocation	Trust Policies	Legal Notice		
	This certificate	is not trusted.				
	 Sign Certi Exect docu Exect certif Perfor print 	documents or da fy documents ute dynamic coni ment ute high privilege ied document irm privileged sy: ing, file access, e	ata tent that is embed a JavaScripts that i stem operations (tc.)	lded in a certi are embeddeo networking,	fied I in a	
< >		Add to Tr	rusted Certificates			
The selected certificate p The path validation check	oath is valid. :ks were done as of th	e signing time:				

4. Click **OK** and Continue

- 5. Select those options, click **OK**
 - Import Contact Settings

rtificate	Details					
Subject	Test CLIENT 01 (0100109100)					
lssuer:	Longmai					
Usage:	Digital Signature					
Expiratio	on: 26/02/2013 16:07:32					
Trust						
A ch ch	certificate used to sign a document must either be designated as a trust anchor or ain up to a trust anchor in order for signature validation to succeed. Revocation ecking is not performed on or above a trust anchor.					
\square	Use this certificate as a trusted root					
lf s	f signature validation succeeds, trust this certificate for:					
	Signed documents or data					
	Certified documents					
	Dynamic content					
	Embedded high privilege JavaScript					
	Privileged system operations (networking, printing, file access, etc.)					

6. After finishing the upper steps, reopen this pdf file, you will see the signature is valid now.

Signature Validation Status

