

NEUCHATEL ZURICH

# **Using P&TS Timestamping services**

Overview of the workflow to secure intellectual property on the blockchain

# Chapters

Sign-up & Login The dashboard Projects The timeline Certification Versioning The certificate Verification



# **Getting started**

Bernstein is a simple webapp. To start using it, just:

- open your browser
- go to app.bernstein.io
- Sign-up, confirm your email
- log-in with email and password

There's nothing to install nor to update.



### Sign-up & Login

#### Setup your encrypted vault

Select a key to keep your data confidential.

ENCRYPTION KEY

Your encryption key

CONFIRM ENCRYPTION KEY

I understand that this encryption key is never transmitted to Bernstein.

I understand that Bernstein can't recover or reset my encryption key.

 I understand that if I lose or forget my encryption key, I will lose access to my Bernstein vault forever.

I have written down this encryption key and stored it in a safe place.

Vext

# Choosing the key to your vault

This is the only difference to a regular webapplication: you're required to enter an encryption key, known only to you.

It is critical you choose wisely and consciously, as the key cannot be recovered.

We recommend:

- a set of random words you can remember
- copy-pasting the key before entering it
- using a free password manager

Please print or download the encryption for later retrieval.



#### Sign-up & Login

ojecis		New project
Q. Search		
Project 🗸	Last Modified 🗸	Status 🗸
Source Code	5 seconds ago	Uncertified
Corteco Generation 2.0	22 seconds ago	Uncertified
Package Design Iterations	41 seconds ago	Uncertified
Trade Secret #2	1 minute ago	Uncertified
Apparel Design	2 minutes ago	Uncertified
Trade Secret #1	2 minutes ago	Uncertified
Project LegalFab	3 minutes ago	Uncertified
Bachelor Thesis	19 hours ago	Uncertified
ACME Corp - Preliminary designs for new smartwatch	2 years ago	Certified
Funky Bottles Blockchain Copyright	2 years ago	Certified

## The dashboard

In essence, you can picture Bernstein your encrypted digital vault.

The dashboard provides you with an overview over all your projects. In a glance you can see which ones of your projects contain uncertified data!

# P&TS

### The dashboard

Projects		Ra New project
Q Search	Create a new project ×	
Project + Source Code Corteco Generati	A project is a collection of data and files related to a specific IP management process or activity.	Status - Uncertified
Package Design Trade Secret #2 Apparel Design	YOUR PROJECT TITLE: Project title	Uncertified Uncertified Uncertified
Trade Secret #1 Project LegalFab Bachelor Thesis ACME Corp - Prei	CONFIDENTIALITY Private (Full encryption) Your project is only accessible to you and members of your organization. Not even Bernstein can read it.	Uncertified Uncertified Uncertified Certified
Funky Bottles Bic	Create project	

# **Creating a project**

A project is a collection of data and files related to a specific IP process or activity.

Creating a new project is only the matter of choosing a descriptive title. You can create an unlimited number.

A project should always relate to a specific goal.

Note: the title gets encrypted locally as well, allowing you to include sensitive information.



### **Projects**



# **Project page**

Three elements make up a project content.

The title: chosen when creating the project, it can be modified here at any time.

The description: a simple text box which can be used to add any relevant information, such as description, summary, changelog, contributors, etc. The abstract also gets encrypted and its content is certified and provable.

Attached files: An unlimited number of digital files, of every format and size, can be uploaded per drag & drop to become part of the project.



#### **Projects**



## The timeline

Displayed on the left-hand side, it will get updated with a new version every time you certify your project, allowing you to seamlessly navigate back and forth in time and retrieve the status & content of the project at a specific time.

Clicking on an older version not only lets you see its content, but also download it in the exact same state it was when you certified it, even if the content changed in subsequent versions.

You will, of course, also find the associated certificates below.



#### The timeline



# **Certifying a project**

At this point, it's only a matter of a few clicks to create a Bernstein certificate proving the existence, integrity and ownership of your project. Each certification creates point-intime registration including:

- The Bitcoin certificate: the most powerful certificate, giving you a mathematical notarization valid globally and forever. It is selected by default.
- The EU Timestamp: officially compliant with the standard set by the eIDAS regulation, and therefore recognized by all European courts with a validity of 30 years.
- The Chinese Timestamp: creates additional evidence approved by a State-run time stamping authority, Unitrust, valid 30 years.

#### Certification





# **Certified versions**

After confirming, a new version will automatically get created in the timeline, safely keeping the files you just certified intact.

Download the original files

Access to the Bitcoin transaction private keys, necessary to validate the certificate and prove your ownership.

- Open the Bitcoin transaction in a public blockchain explorer.
- Preview and download the certificate receipt.

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Preview and download the official UniTrust certificate.



### Versioning

#### BITCOIN CERTIFICATE 05068648-551a-4ea7-9aa7-4041dc20bfcd



Files and data referred hereunder existed at the Confirmation Date and were under the control of the entity that submitted the Bitcoin transaction detailed below.

#### **Project Data**

Project ID:	58bcb5b5-1db3-4721-b2e7-91e3d5201246
Project Title:	Insurance solutions for IP assets
Submitted by:	Bernstein Technologies GmbH
Content:	3 files + Project cover
Fingerprint:	632e1ddcadff5d5f152c75a60683ae9ec1d80546f8896e3615dfebf486d0eebe

#### **Bitcoin Transaction Data**

Transaction ID:	clb1dbfaf1997c4de28b24bf3a903be7abc81cc6b10c774cf6370f06897cc39e
Confirmation Date:	May 14, 2019 at 23:45:45 UTC
Block:	576075
Multisig Output:	bclqh6y05h8w4m9uxut6tx4k3vt96u0spuq355c3277dmd5eepkadeaqd7y4kr
OP_RETURN:	OP_RETURN BERNSTEIN 2.0 REG 58bcb5b5-1db3-4721-b2e7-91e3d5201246
Data Key:	02fcc385614e24989cfa01ac9f9ee09c37ed9cb6cfacfa672f2d292d43af30cf9c
Owner Key:	02eb35c645b128d66b71ac871062add635b8cbee3d1d21d001a6b08ale0778e891
Bernstein Key:	02e1d67f625f28a20d7181f364cc4848e0444af2aeed4219cb185a50dcca38f137
This cer	tificate can be independently validated by following the procedure described <u>here</u> r by using the web app available at this address: app. <u>bernstein.io/validator</u>

BERNSTEIN

## The Bernstein certificate

The certificate summarizes all the data required to verify its validity.

The certificate ID: unique identifier which can be used to reference the certificate and its content in contracts. Also needed to verify a certificate on app.bernstein.io/certificates.

The transaction ID: identifies the Bitcoin transaction at the root of the certification. You can find the transaction on any blockchain explorer.

The public keys: derived from the private keys found in the app, they cryptographically represent the owner and content of the project on the blockchain.



#### The certificate

		Validate a bitcoin certificate	
	Prove	e ownership and existence your data related to a Bernstein Bitcoin certificate	
	G	ENTER YOUR CERTIFICATE ID	
		Verify this certificate	
Do no trust us! Authenticity of Bernstein certificates can be independently verified by any third party. Here are the detailed instructions for direct verification. Please note that during the verification process no information will be shared with our server. You can actually disconnect from the Internet right before uploading any file to be extra sure.			

### **The Bernstein Validator**

https://app.bernstein.io/validator

On this page, anyone knowing the certificate ID can get an overview of its details and content.

Uploading a file automatically indicates whether the file is part of the certified content.

The app also lets you conveniently prove ownership by checking the private keys without uploading them to the server.



### Verification

The timestamping service is powered and further developed by our partner Bernstein GmbH.

## For technical support, please contact :



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