

Using P&TS Timestamping services

Overview of the workflow to secure
intellectual property on the blockchain

Chapters

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The dashboard

Projects

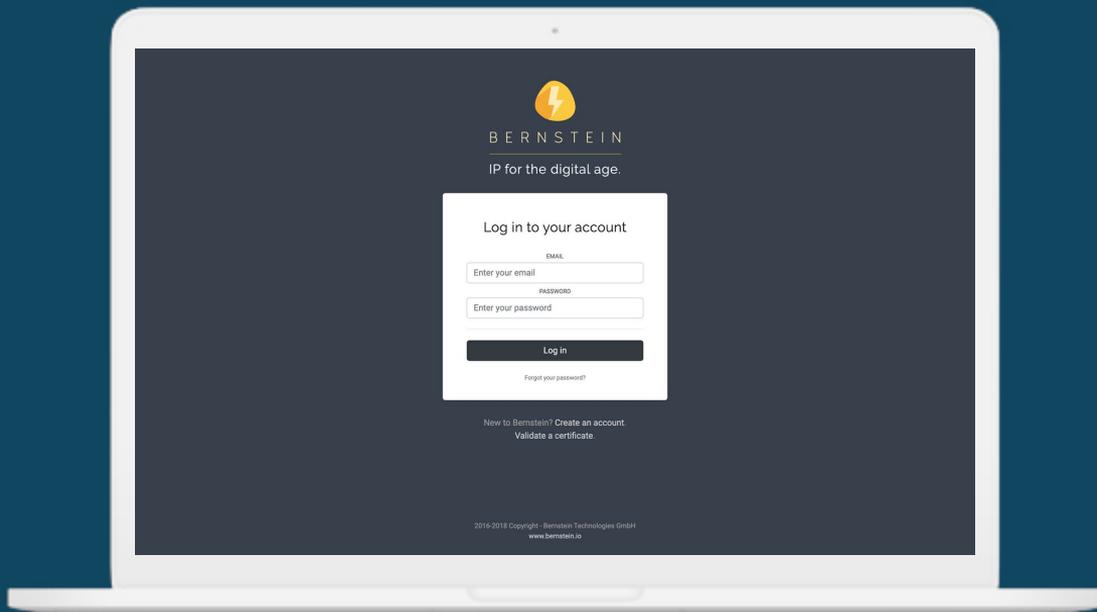
The timeline

Certification

Versioning

The certificate

Verification



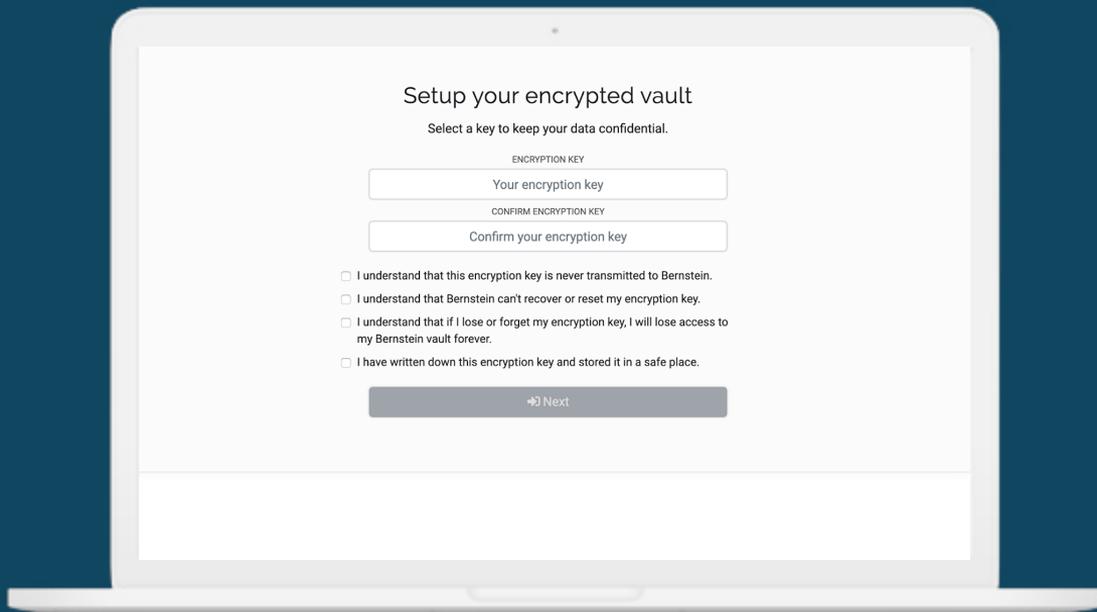
Getting started

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.



Choosing the key to your vault

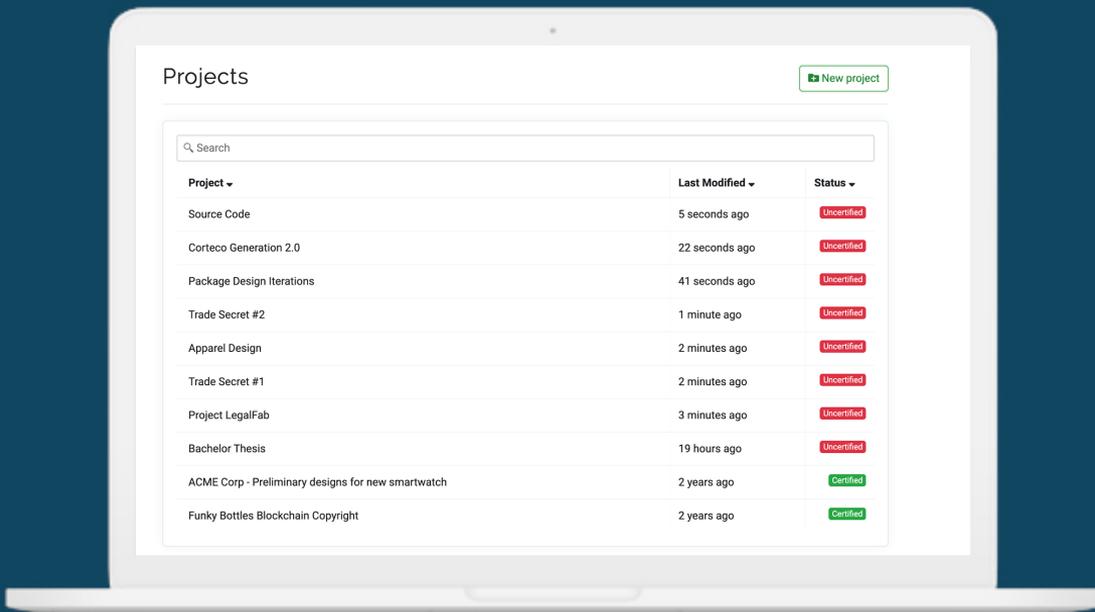
This is the only difference to a regular web-application: you're required to enter an encryption key, known only to you.

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](#)

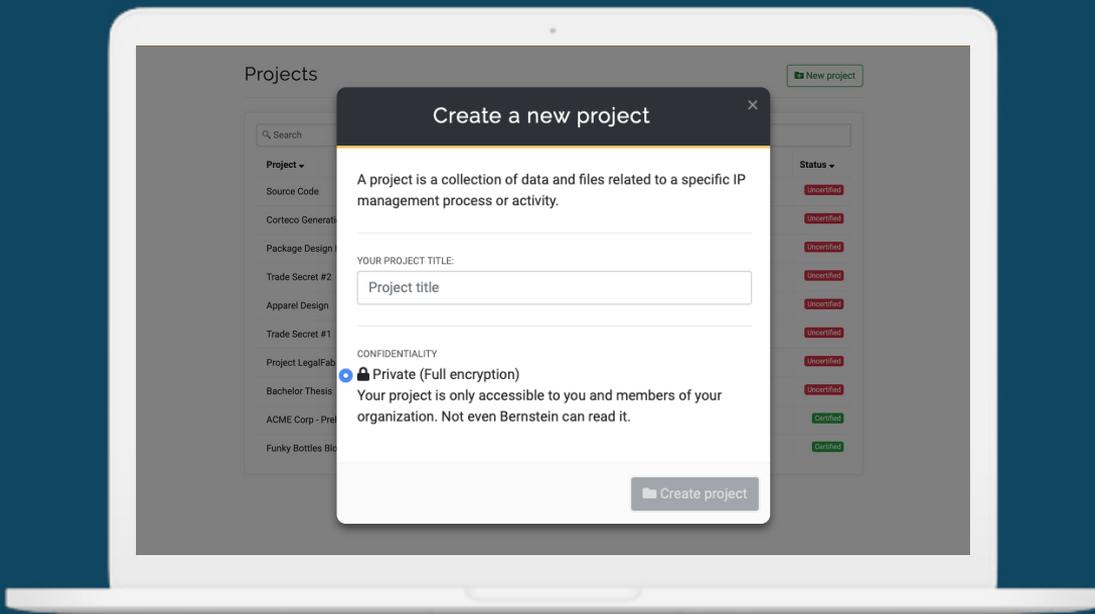
Please print or download the encryption for later retrieval.



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!



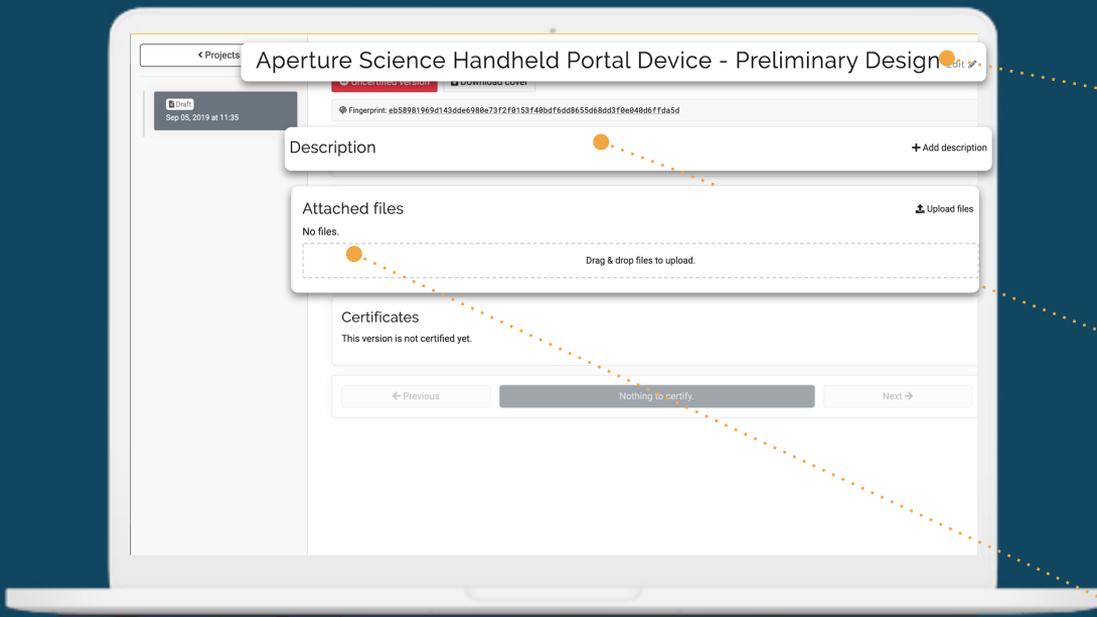
Creating a project

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.



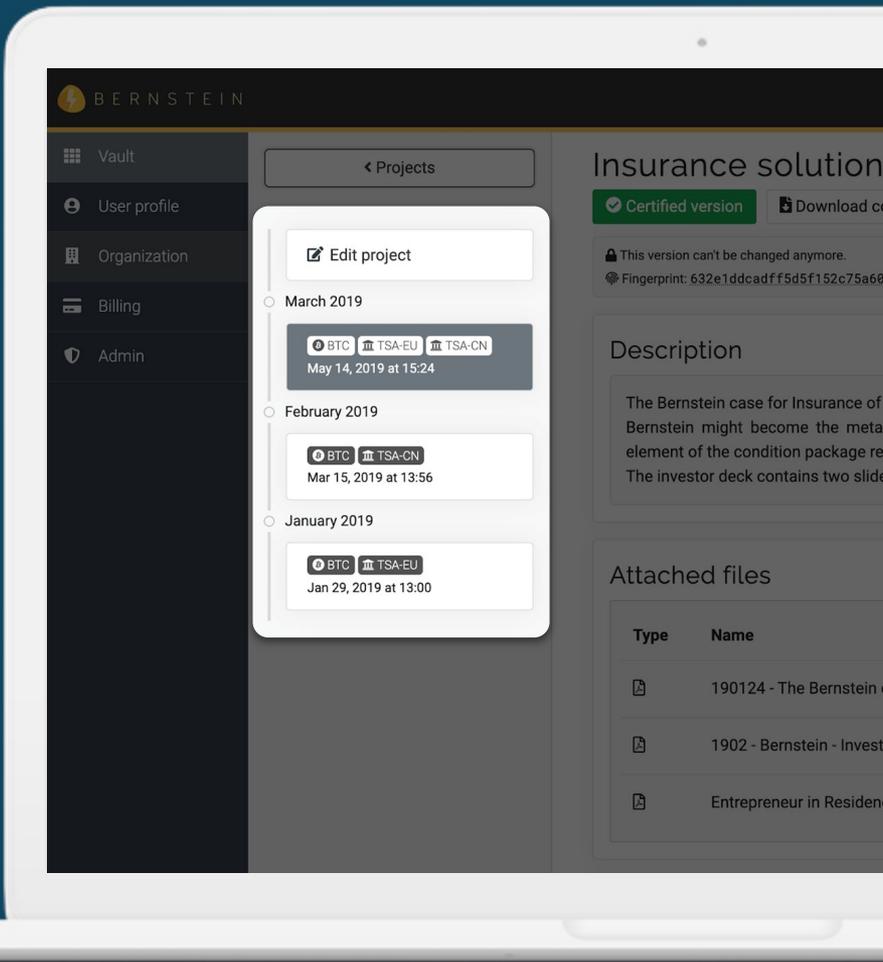
Project page

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.



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.

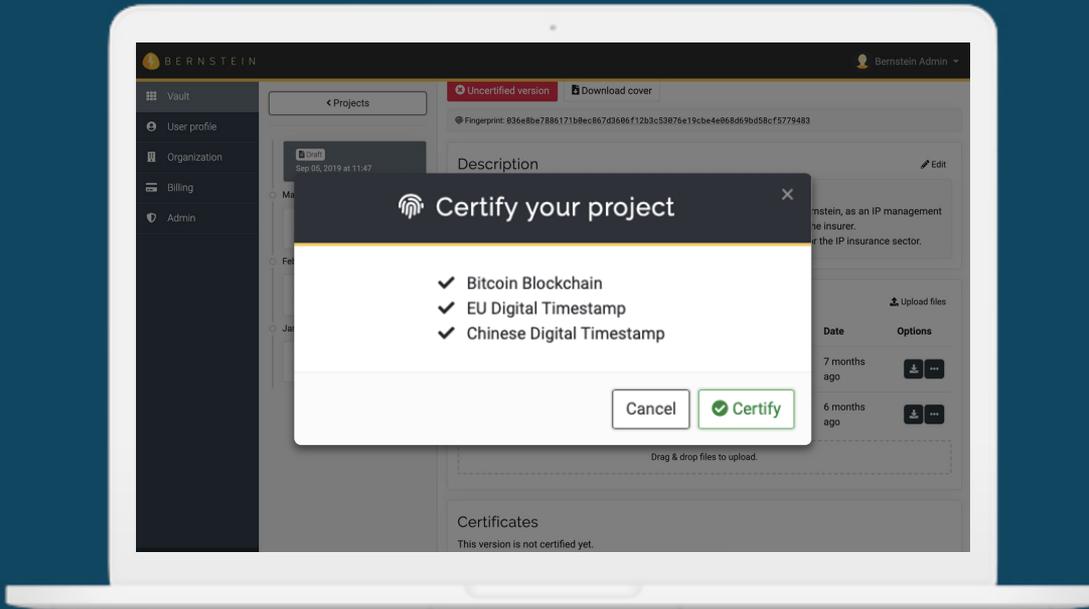
Clicking on an older version not only lets you see its content, but also download it in the exact same state it was when you certified it, even if the content changed in subsequent versions.

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

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-in-time 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.



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.



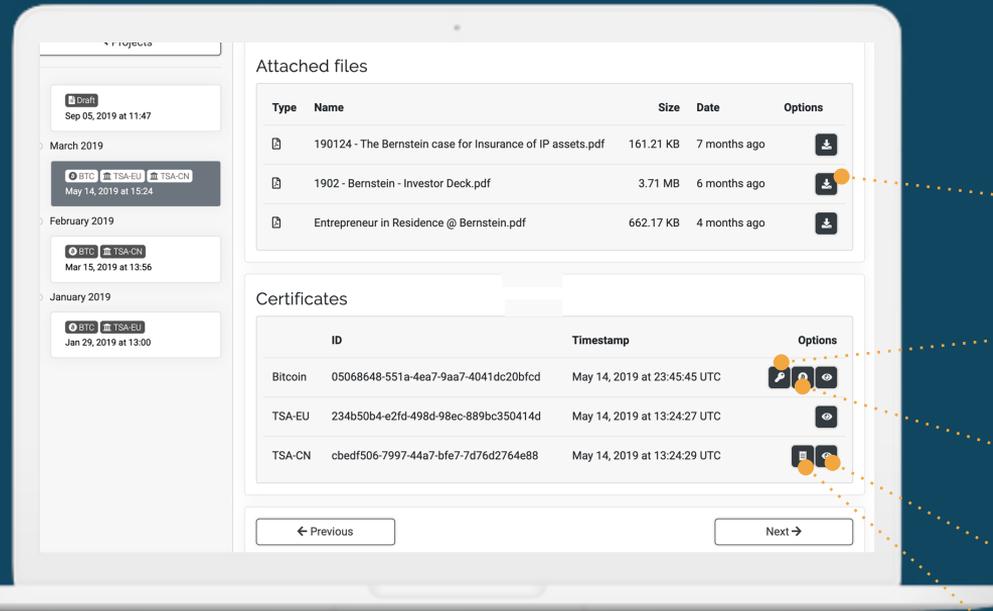
Open the Bitcoin transaction in a public blockchain explorer.



Preview and download the certificate receipt.



Preview and download the official UniTrust certificate.



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: c1b1dbfaf1997c4de28b24bf3a903be7abc81cc6b10c774cf6370f06897cc39e
Confirmation Date: May 14, 2019 at 23:45:45 UTC
Block: 576075
Multisig Output: bc1qh6y0sh8w4m9uxut6tx4k3vt96u09puq355c3277dmd5eepkadeaqd7y4kr
OP_RETURN: OP_RETURN BERNSTEIN 2.0 REG 58bcb5b5-1db3-4721-b2e7-91e3d5201246
Data Key: 02fcc385614e24989cfa01ac9f9ee09c37ed9cb6cfacfa672f2d292d43af30cf9c
Owner Key: 02eb35c645b128d66b71ac871062add635b8cbec3d1d21d001a6b08ae0778e891
Bernstein Key: 02e1d67f625f28a20d7181f364cc4848e0444af2aee4219cb185a50dcca38f137

This certificate can be independently validated by following the procedure described here or by using the web app available at this address: app.bernstein.io/validator



BERNSTEIN

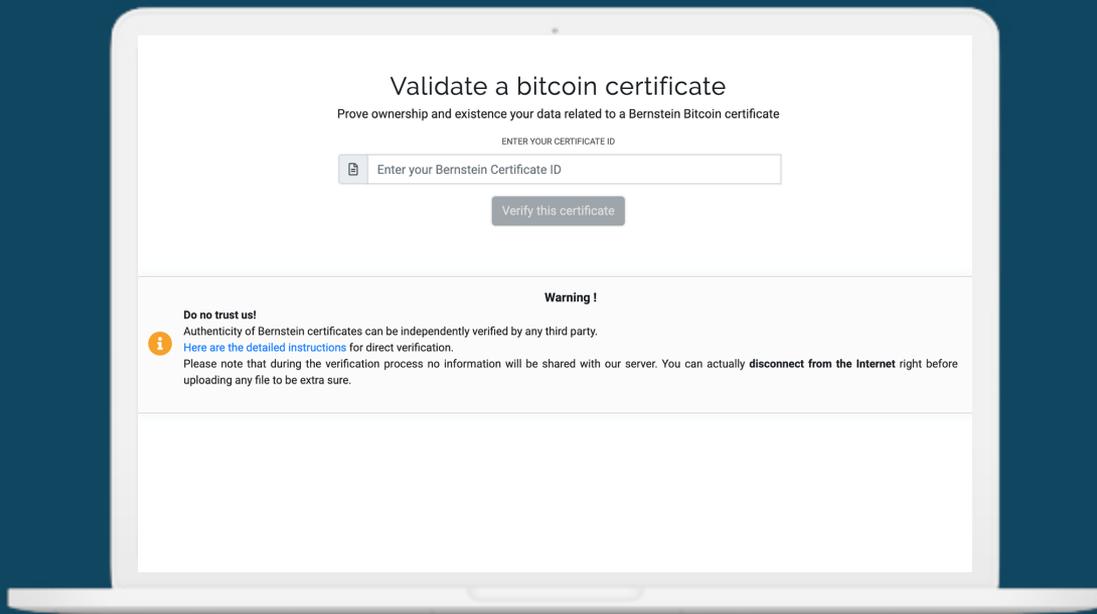
The Bernstein certificate

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 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.

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

For technical support, please contact :



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