

# Whitepaper Minstordinals

Galois Field, Noé de Larminat

November 9, 2023

## Contents

<b>Contents</b>	<b>1</b>
<b>1 Introduction</b>	<b>2</b>
1.1 What Ordinal is ? . . . . .	2
<b>2 Workflows</b>	<b>3</b>
2.1 Global workflow . . . . .	3
2.2 Mintbase workflow . . . . .	4
2.3 BOS workflow . . . . .	5
<b>3 Implementation</b>	<b>6</b>
3.1 Programming . . . . .	6
3.2 JSON Standard . . . . .	6
3.3 Further implementation . . . . .	6
<b>4 Business model, roadmap and beyond</b>	<b>7</b>
4.1 Business Model . . . . .	7
4.2 Roadmap . . . . .	7
4.2.1 Financial target . . . . .	8
4.2.2 Technical hopes . . . . .	8
4.3 Our vision for future . . . . .	9
<b>References</b>	<b>9</b>

# 1 Introduction

The aim of this project is to link **Mintbase** NFT with **Bitcoin Ordinals** inscriptions. To be able to do it we are purposing a new json ordinals standard 3.2. This standard should allow us to easily index this new protocol from Bitcoin with Near **BOS** in a near future and creating a real **native bridge** between Near on-chain NFT and Bitcoin ordinals inscriptions. This standard is not a definitive version and should be considered as a first draft for further development.

To make this bridge we have to follow several steps and well understand what are the limit of what we suggest. It isn't a perfect solution and new ideas are still required to fully solved this **interoperability** problem. But we isolated specific problems in workflow schemas 2. We detailed our implementation and challenges we faced into 3. Finally, we discuss our business plan, roadmap and our vision about the future of this project4. We want to purpose a viable project

## 1.1 What Ordinal is ?

You can find the official documentation with the specific inscription part.

Ordinal theory imbues satoshis with numismatic value, allowing them to be collected and traded as curios.

Individual satoshis can be inscribed with arbitrary content, creating unique Bitcoin-native digital artifacts that can be held in Bitcoin wallets and transferred using Bitcoin transactions. Inscriptions are as durable, immutable, secure, and decentralized as Bitcoin itself.

Other, more unusual use-cases are possible: off-chain colored-coins, public key infrastructure with key rotation, a decentralized replacement for the DNS. For now though, such use-cases are speculative, and exist only in the minds of fringe ordinal theorists.

Basically we can see **ordinal** as an envelope on Bitcoin as following :

```
OP_FALSE
OP_IF
  OP_PUSH "ord"
  OP_PUSH 1
  OP_PUSH "text/plain;charset=utf-8"
  OP_PUSH 0
  OP_PUSH "Hello, world!"
OP_ENDIF
```

Figure 1: Ord envelope

## 2 Workflows

This section covers the **overview of workflow** suggested for **minstordinals**.

### 2.1 Global workflow

The global workflow begins by the mintbase workflow to initiate the mint and begins when the Mintbase NFT is minted. It manages with NFT mintbase data and JSON format to inscribe on Bitcoin. It handles Bitcoin tx in javascript and with making use of BOS workflow authenticate the ordinal inscription.

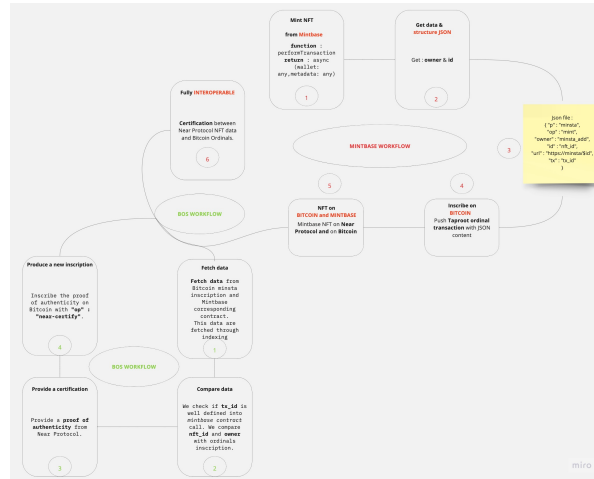


Figure 2: Global workflow

We will delve into each workflow separately to understand what happens under the hood.

## 2.2 Mintbase workflow

The Mintbase workflow is the main purpose of **minstordinals** for now. It contains nft deployed with **minsta** tool, pushing Bitcoin transaction with **bitcoin-lib** js package and management through UI.

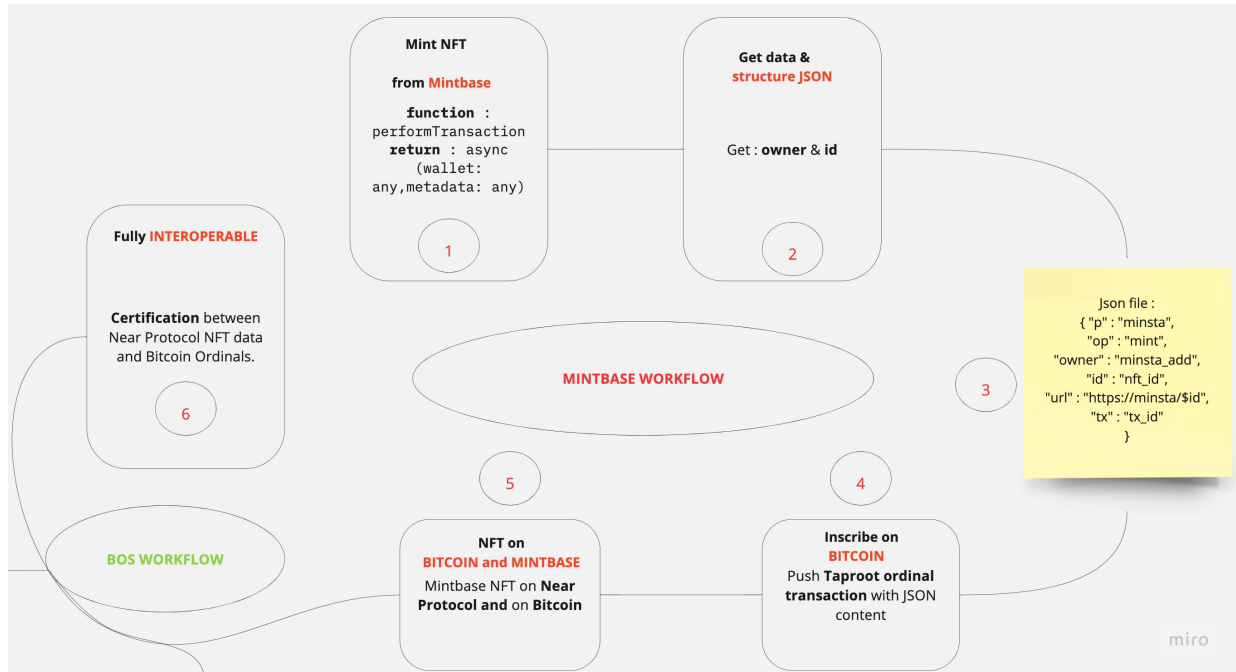


Figure 3: Mintbase workflow

We begin by deploying a Mintbase NFT with the regular way : call `mint-nft` function. After, we are storing data into a temporary file, such that user will be able to click on **inscribe** button to turn its mintbase nft into ordinal inscription. After that we are using a pre-built react component to make the Bitcoin transaction with the right information. Finally we should handle this inscription into our UI which is still under development.

## 2.3 BOS workflow

The BOS workflow is more theoretical. We have this idea to certify data but we missed the fact that only a specific vericator should be able to mint **near-certify** operation.

We are still about solving this issue, but we are discussing with Nearcon tech partner about this.

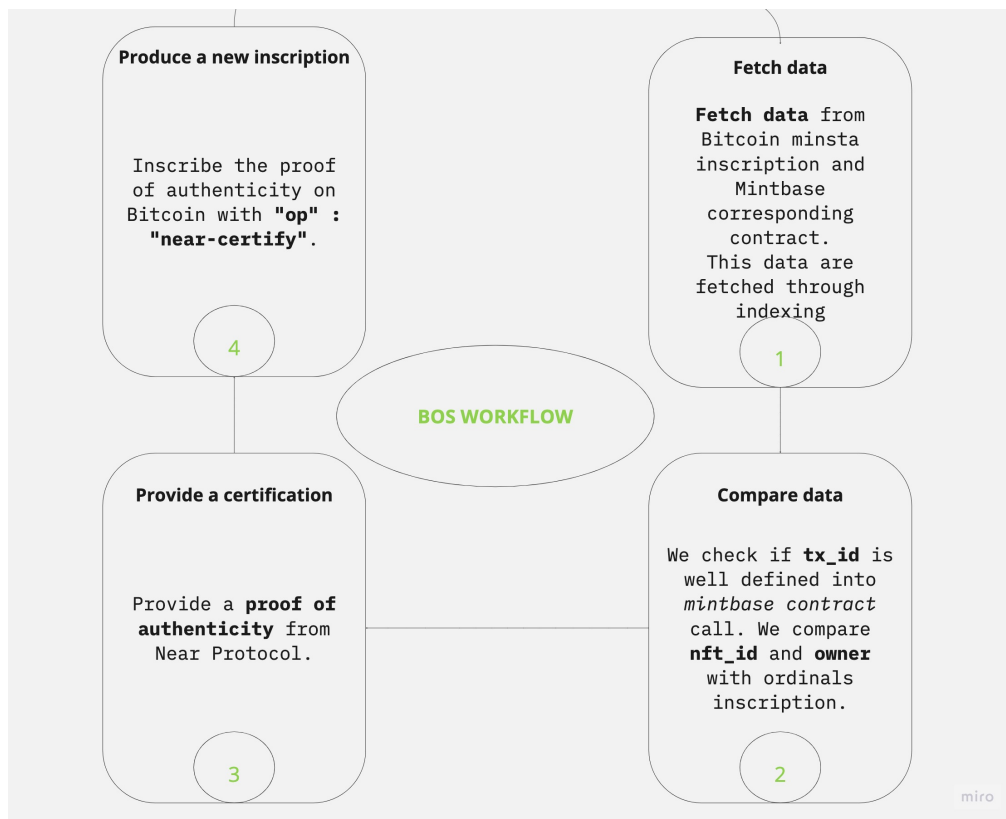


Figure 4: BOS workflow

The first step for a near vericator should be to fetch data from both side.

## 3 Implementation

This section provides an overview of the work done and our vision for the JSON standard and future implementation. We kindly remind that `minstordinals` is a 36h hackathon project and it's still under development. We can't cover all aspects deeply but we aim to provide a nice overview of possible features and code required to build everything well.

### 3.1 Programming

From a programming prospective our first step was to modify the `.env` file to customise the website.

We imported `Connect unisat` boilerplate to make Bitcoin transaction in `minstordinals` app. The goal is to use the `Connect` component of this repo `Connect` component.

### 3.2 JSON Standard

With this standard we want to be able to `mint-nft` and to `near-certify` the authenticity of it.

For this part we will focus on `mint-nft` operation and detail our needs for `near-certify` (cf. 3.3 for more precisions).

Let's describe the JSON to mint a nft into `minsta` protocol.

```
{
  "p" : "minsta", # describe the protocol, used to indexing
  "op" : "mint-nft", # give the operation to realise
  "owner" : "minsta_account", # owner of the nft minted on minsta
  "id" : "nft_id", # get the current nft id minted on minsta
  "url" : "https://testnet.mintbase/nft_id" # get the url
  "tx" : "tx_id" # should be used by BOS to check the authenticity
}
```

This is our purposed standard for `minsta`.

The `near-certify` workflow should making use of `tx` and `id`.

### 3.3 Further implementation

We forked a `brc-20` indexer in order to be able to index `minsta` protocol that you can find in our repo `./minstaIndexer`. It's the first step to go ahead and unlock Near Protocol BOS

power into certificative instance.

The last implementation to do is with **BOS**. As said previously we want to inscribe a *certificate-like* json file such that in Near Protocol and on Bitcoin we can't have a wrong mint considered as valid.

## 4 Business model, roadmap and beyond

This part is dedicated to investors. It needs to be fulfilled with business expert and potential accelerator as Near Starter to be as close as possible of investors requirements. It contains the basic information for an MVP and our actual vision about this project.

### 4.1 Business Model

Loose money to see on long term !

We want to bridge users and liquidity between Near Protocol and Ordinal ecosystem. To do so, we want to offer in first time the mint on Bitcoin to incentivise Bitcoin and Near user to use our tool.

We aim to develop a technical product and we want to offer new experiences to our users. Fees especially on Bitcoin could be a limitation and we don't want that happen. So we want to constitute a Bitcoin capital, possibly from the Ordinal community, and a Near capital to act ourselves as a bridge and be represented in both ecosystem.

### 4.2 Roadmap

Our roadmap is pretty simple.

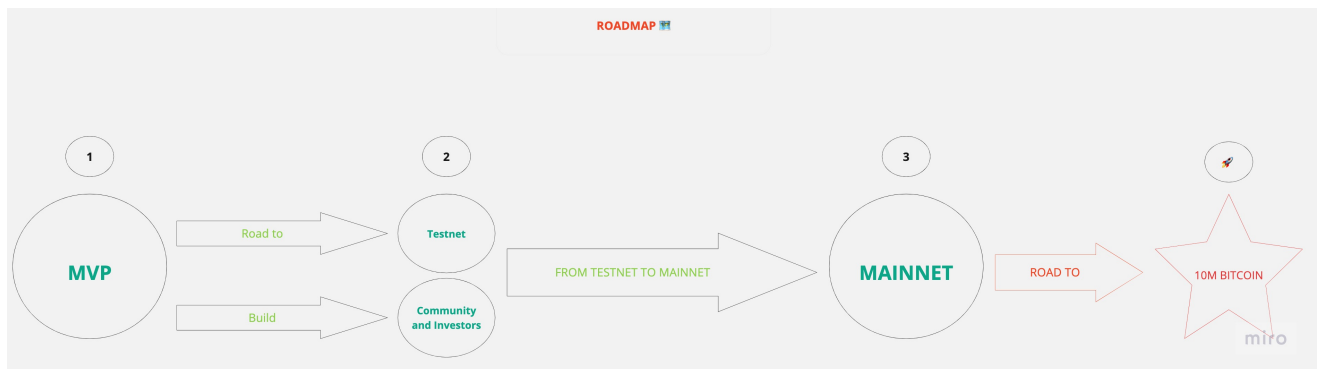


Figure 5: Roadmap

We want to finish our MVP and link tools we built. When the MVP will be available we want to deploy 2 tracks. The first track will build the project for the testnet. During this part we want to be sure that our code will be scalable and UI friendly. We want to stay focus on minsta repo for its already good development framework.

The second track should be dedicated to build the team and investor speech. We want to fit with the needs of the market from Near Protocol/Mintbase in one hand and Ordinals' community in another hand. The community and speech investor track is very important. We want to build a brand by design around **minstordinals**.

When this part is finished, we want to leverage the community and investor power to launch the app on both Mainnets. It's a technical challenge for cross-indexing and a community challenge to join these two spaces.

#### 4.2.1 Financial target

From an investor prospective we are targeting Applications users on Near Protocol and Ordinals brc-20 liquidities. Once again, the problem with this project is a bit the same as Near Protocol problem : build very good technical infrastructure but without purposing a real solution. It's a technical show about what can be done but with potentially no one in front-of it.

One thing important to have real money will be on Bitcoin, from brc-20 volumes.

#### 4.2.2 Technical hopes

The goal is to keep the UX of minsta to stay simple, with a minimalist ordinals integration.



### 4.3 Our vision for future

Many things are possible with this tool and we are only looking into some specifics to be focus on our success. But, image inscription on Bitcoin with the nft could be done easily if the community requests this feature.

We want to build a community driven tool and be very active and listening from the community is the most important thing for us ! We want to create new nft experiences and making use of last Near protocol tools. We have a very technical and pioneer vision under respect of community needs and requests.

Near is a blockchain that unlocking immersive user experience and Bitcoin is THE Blockchain to store value ! We want to mix it and create a first bridge between this two distinct ecosystems where each of us can learn and earn from each other.

**THE FUTURE IS POSSIBLE ! THE SOLUTION IS NEAR !**

## References

- [1] Ordinal Theory Handbook
- [2] Documentation BOS Near