

# Solana Vistier API



# Overview - Vistier API

## Scope

- processes Solana wallets or transactions and determines what *fees were paid for the acquisition of an NFT*
  - to both creators (royalties) and marketplace.

## Communities benefits

- have a means of identifying holders that respected royalties, thus allowing for a reward structure to be implemented
- have a tool of tracking paid royalties



# Pros and cons

## - Pros

- Lightweight, simple to deploy and use
  - Is also provided as a [docker image](#)
- No external API dependencies except for a RPC endpoint
- No persistence/storage mechanism is required to operated, it processes on the fly
- Supports escrowed NFTs
- OpenSource, MIT license

## - Cons

- Slow processing speed when dealing with wallets with a lot of NFTs
  - Can be resolved with a good endpoint and worker count increase
- Currently only MagicEden is supported
  - Easelly extendable



# Project components

- **libvistier**
  - API for querying royalty, TX and wallet information
- **flask server**
  - a server integrating Vistier API
- **docker image**
  - a simple docker image on the above flask server
- **discord bot**
  - a POC discord bot for highlight one beneficial use case of Vistier



# libvistier

2 APIs are provided

## 1. **api\_search\_wallet\_for\_nfts**

all NFTs containing in the wallet and all escrowed NFTs are collected, identified which belong to the targeted collection and subsequently processed for royalty payment information

## 2. **api\_process\_signature**

checks and identifies if the signature is a marketplace: Sell, Listing. Cancel Offer or Place Offer and offers additional insight



# Algorithm

Following images represent the high level steps taken to process an input and a more details, algorithmic view of the entire API core logic.

## Collect wallet NFTs

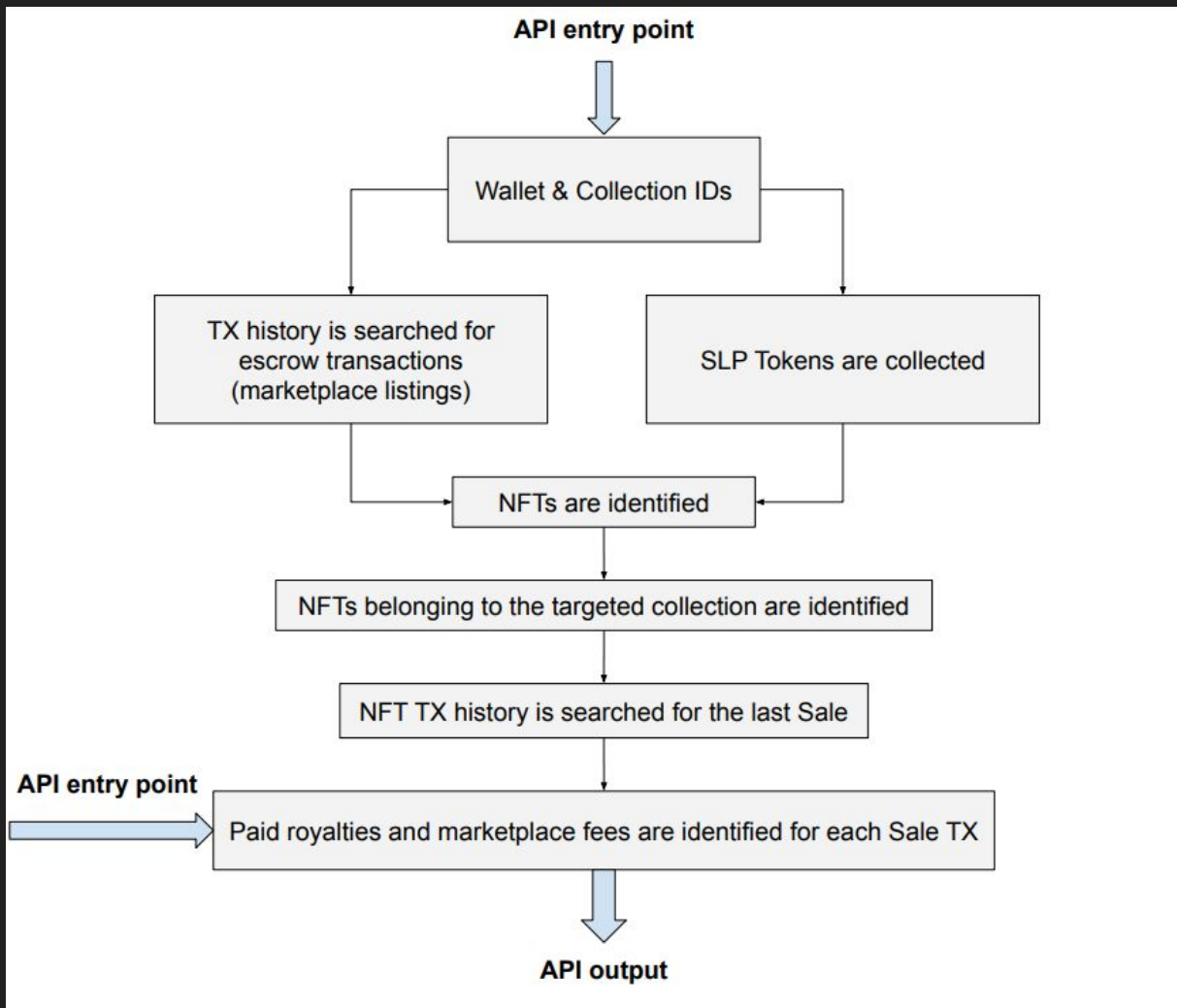
Using standard RPC APIs, all SPL tokens are collected, NFTs are identified, validated and checked if they are originating from the targeted collection

## Collect Escrowed NFTs

Wallet transactions are searched for escrow operations. When found, using the same logic as before, will determine if there are NFTs of interest

## Process for payment data

Will process the transactions of all identified NFTs looking for the last marketplace sale. Once found payment information is extracted and returned





# Vistier Server and Docker

Server provides wrappers over the main API functions

- **/wallet-status**
  - checks the provided wallet address if it has the specific collection NFTs (indicated by the CMIDs, Candy Machine IDs)
- **/marketplace-signature/<signature-hash>**
  - checks and identifies if the signature is a marketplace: Sell, Listing. Cancel Offer or Place Offer

[A Docker image is already provided for public use.](#)





# Vistier Discord Bot

- POC discord bot to highlight the utility of Vistier API
- Any community gating can be done using the API
  - NFT ownership gating
  - Minimum royalty payment for extra community incentives for loyal members
- 3 popular collections were implemented
  - [Shadowy Super Coder DAO](#)
  - [DeGods](#)
  - [Solana Monkey Business](#)



**/ssc** `address`

Check if the provided address has Shadowy Super Coder NFTs



**/degods**

Check if the provided address has DeGod NFTs



**/smb**

Check if the provided address has SMB NFTs



# Discord bot examples

ABA used [/smb](#)

**Vistier BOT** Today at 2:38 AM

Checking 91RcYj6uqCsyPMLo9NGnqrwAqLb6h1V3EBnxwJXFruP for any SMB NFTs

Only you can see this • [Dismiss message](#)

**BOT Vistier** Checking 91RcYj6uqCsyPMLo9NGnqrwAqLb6h1V3EBnxwJXFruP for any SMB NFTs ✓

**Vistier BOT** Today at 2:38 AM

Address has **1** SMB NFTs:

- SMB #4203: <https://solana.fm/address/BnjMm4amTYxiNyTG1MgiGJqCDntfAZW6z65nGm6gtxMt>

Royalties paid on all of them is **0.0 SOL**

- 0.0 SOL to the creator
- 0.0 SOL as marketplace fees

Collection has **6.0%** creator royalty fee

Details:

- **SMB #4203**

- bought at: 2022-11-29 22:01:14
- signature: <https://solana.fm/tx/3XerAVjNgiMXUN8h3XgPGzg1M9f6zGcEWKfhHow64A3HxP8HU7r3uRbPVM9DZzso3k5GwSJPUrjweR9mCPGkEYE>
- paid: 215.0 SOL
  - 0.0 SOL (**0.00%**) fee to the creator - didn't respected creator
  - 0.0 SOL (0.00%) as marketplace fees

Only you can see this • [Dismiss message](#)



ABA used /ssc



**Vistier BOT** Today at 2:31 AM

Checking twT9F31KYwWoCKJekKZrhk15RsUguHqFDvXnfMKzBu for any Shadowy Super Coder NFTs

👁 Only you can see this • [Dismiss message](#)

**BOT** Vistier Checking twT9F31KYwWoCKJekKZrhk15RsUguHqFDvXnfMKzBu for any Shadowy Super Coder NFTs



**Vistier BOT** Today at 2:32 AM

Address has **3** Shadowy Super Coder NFTs:

- Shadowy Super Coder #7044: <https://solana.fm/address/4moEtbb2Uhn5RXkQBNE4Q6cgQ7FNsKuYC7d5VhgRZs1L>
- Shadowy Super Coder #3943: <https://solana.fm/address/F4WhvqWGGxCKM88Sdoxw57R8sQMBeh5W8NWuKZwEL6L9>
- Shadowy Super Coder #7952: <https://solana.fm/address/GDPaAaSaSgWRamurA2qAm5q2RhptWTyqqQNxTbw9XWbkv>

Royalties paid on all of them is **4.624 SOL**

- 4.624 SOL to the creator
- 0.0 SOL as marketplace fees

Collection has **5.0%** creator royalty fee

Details:

- **Shadowy Super Coder #7044**

- bought at: 2022-11-12 21:59:35
- signature: <https://solana.fm/tx/3zzfdKubCUYNvH8DmAoWA4JDAAqYrTviXyz8tnLHeWGr5BXS698NF8NX7PxuuMzEVTfNX2imdWGxaDvLm7dTsgHJ>
- paid: 31.98 SOL
  - 1.599 SOL (**5.00%**) fee to the creator - **respected creator fees!**
  - 0.0 SOL (0.00%) as marketplace fees

- **Shadowy Super Coder #7952**

- bought at: 2022-11-12 21:59:35
- signature: <https://solana.fm/tx/48TH7Ff5zJNbiwFrsZhZqhaUjZ4pwsV185dDiWgnUYcaLRGrSEB4JcLaQPmMnmVLgPy5pPWzFto4hQXAbsyTaARL>
- paid: 30.5 SOL
  - 1.525 SOL (**5.00%**) fee to the creator - **respected creator fees!**
  - 0.0 SOL (0.00%) as marketplace fees

- **Shadowy Super Coder #3943**

- bought at: 2022-11-12 21:59:35
- signature: <https://solana.fm/tx/5qnYngx4Tk5fgMTbXAADYm9Tx1SbyfV7ptdYa31c3GTQd7aZzkDrgyp77Yb8dhx8KvkqhSwuumJcUKMM49Hh6L5>
- paid: 30.0 SOL
  - 1.5 SOL (**5.00%**) fee to the creator - **respected creator fees!**
  - 0.0 SOL (0.00%) as marketplace fees

👁 Only you can see this • [Dismiss message](#)



## Conclusion

- Vistier is an API build for communities to leverage royalty payments
  - Communities, or creators, can decide how to reward/incentivise members to pay royalties using the API
- Simple and lightweight, can be a great addition to any DAO toolkit
- The area of royalties is still growing, we need flexibility and tools to help us grow together, as a community

Project link: <https://github.com/abarbatei/vistier>