Souli: The ERC-20i Token With Native Inscriptions

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Abstract. 'Inscriptions' refer to data written into transactions. Inscriptions can serve various purposes, including adding details to a transaction, sending messages, or attaching documents or files. ERC-20 tokens with inscriptions can have additional data attached, making each token unique and representing it as a piece of art, music, etc.

In the case of **Souli**, each token amount has a unique seed containing data represented as a fungible and non-fungible *(at the same time)* art piece generated in real-time and hosted on the blockchain within a single modified new ERC-20i token format.

Mechanics. A unique' seed' is generated on each buy, sell, or transfer of $SOULI, and a Souli is created and attached to a wallet. Each Souli has six (from 0 to 5) unique levels of size, shape, and color. Each level has its own metadata and its own color palette. The higher seed will attach the higher level to the wallet address. Fungi can be stable or dynamic.

Seeds are only integer numbers; decimals are not necessary. Integer numbers are whole numbers. These can be numbers without fractions or decimals like 1,2,3 and not 0.123 or 0.0123.

Dynamic means the Souli will change its art and seed on each new buy / sell or transfer. It's possible to make it stable and keep it unchanged.

Stable means the Fungi will not change when trading or receiving extra tokens, *however, it will change on selling or a partial transfer, turning it back into a dynamic state*. To make it stable and save a unique seed and attached art, the owner must transfer the amount of tokens that were attached to the initial seed wallet to another wallet.

Example: Bob bought 15 tokens of $SOULI and a unique art was generated for him. He likes his Souli and wants to send it to Alice so she can keep it safe. To do so, he has to send 15 tokens in one transaction to the wallet associated with Alice. Now Alice has Bob's Souli, and when she buys tokens for herself, Bob's Souli is unaffected. Now Alice holds 2 Soulis in her wallet: one is stable (Bob's), and another is dynamic and can change when Alice buys/sells or transfers tokens.
Note: When transferring tokens from one wallet to another, keep in mind that the dynamic soul tokens are transferred first (before those attached to the stable soul).

Seed. A seed is a unique number generated for a particular wallet on any type of integer(whole) numbers transaction.

ERC20i. ERC20i simply stands for ERC20 with inscription data. Inscriptions are encoded in the amount of the transfers of the token; each transaction is parsed and determined by the system as a unique seed number. That seed number is used to render image data.

The smart contract stores the shape coordinates, colors, and logic to produce a final SVG image. Each image is unique, stored on-chain, and generated in real-time based on a seed that equals the holder's $FUNGI balance.

Each generated image has unique metadata attached to it, including:

- Groud color
- Background color
- Body shape, Body color
- Eye Shape
- Dot shape, dot color
- Effect shape, effect color
- Level 1 - level 5

Colors are attached based on this logic: from many different colors on the lowest to more defined colors on the higher levels.

Note: 0 level is called “essence.” Essences do not have a eye; they only have a small body.

Example: Bob bought 9,000,000 $Souli, and his seed equals 9000000. He will get this metadata:

- Souli level is 5
- Background Color #0f0c45
- Ground Color: #137d5a
- Body Shape: 4
- Body Color: #99ba5a
- Dot Shape: 3
- Dot Color: #974700
- Effect Shape : 5
- Effect Color: : #974700

Generating an image based on 9000000 seed.

Creating a background layer, assigning a color, and then combining it with a ground color.