

# xpNFT

A Guide to Experiential Art NFTs

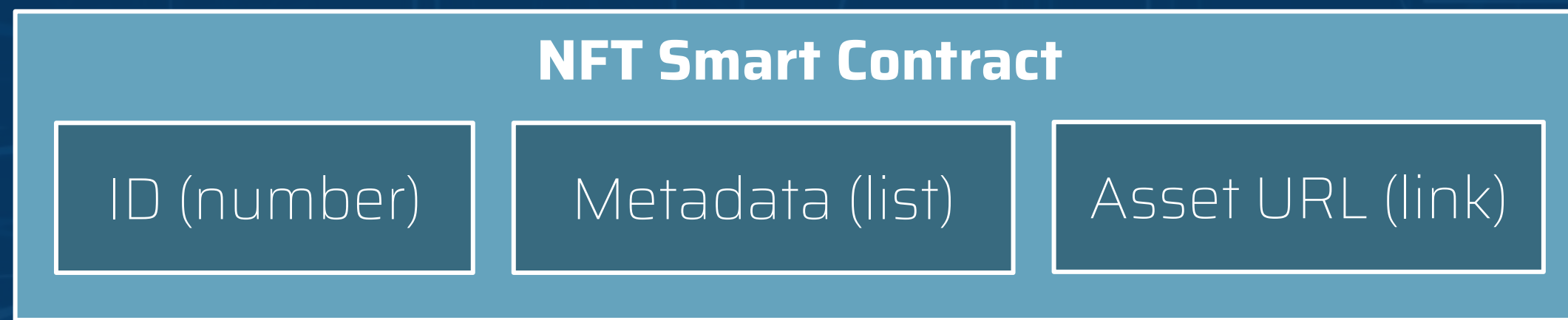
by Nik Kalyani

# What's an xpNFT?

An xpNFT is an NFT that has either a digital or real-world experiential component. There are many types of xpNFTs. This guide focuses on Art xpNFTs that have primarily digital visual experiences.

# The xpNFT Concept

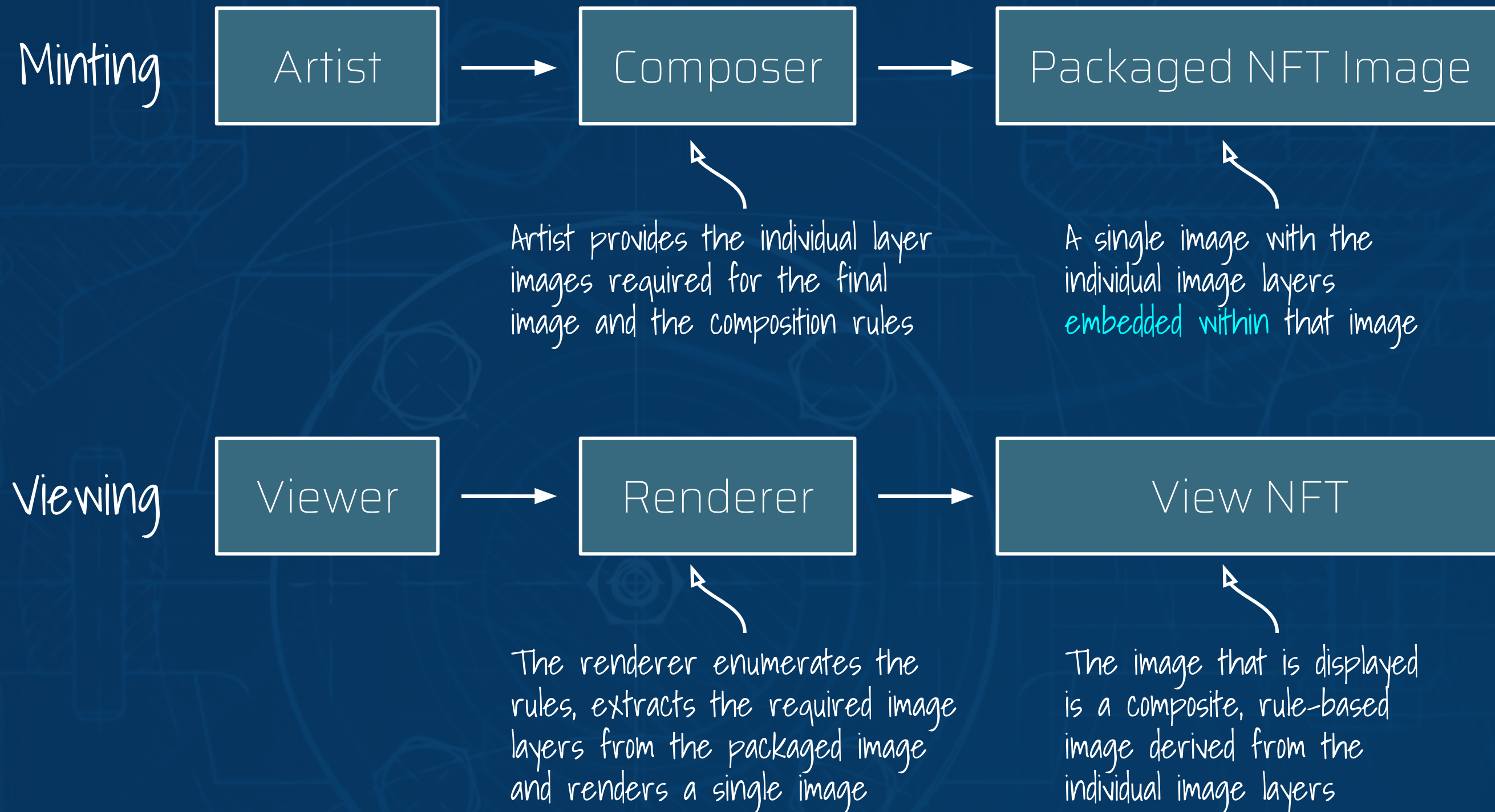
This is the data for  
each NFT in a  
Smart Contract



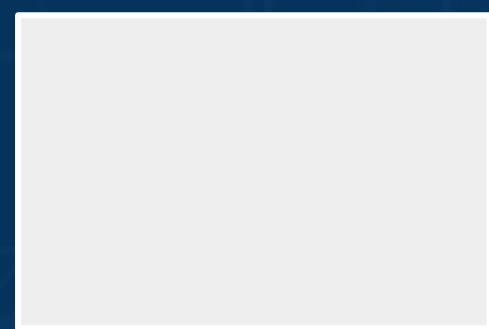
Usually the Asset URL refers to a fixed file (JPG, MP4, PNG etc.) on decentralized storage like IPFS, Skynet or Arweave. But what if the file wasn't fixed? What if it could "render" a different image or movie dynamically based on the Metadata or some other criteria?

Voila...xpNFT!

# How do xpNFTs work?



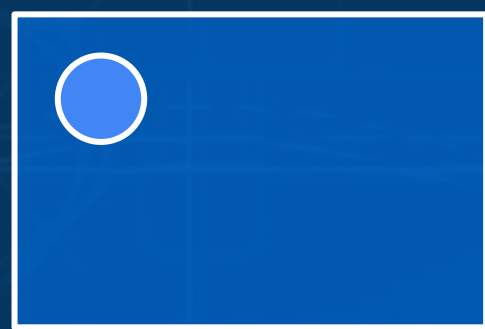
# An xpNFT Example



Base Image



Daytime Layer



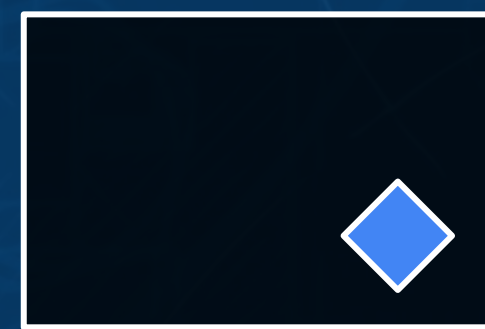
Morning Layer



Afternoon Layer

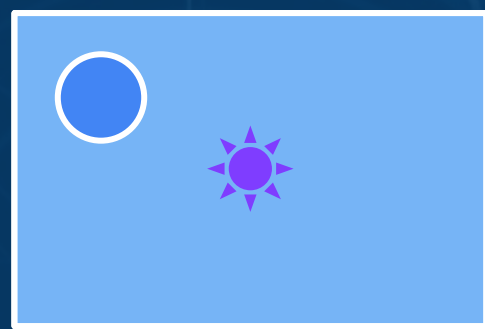


Evening Layer

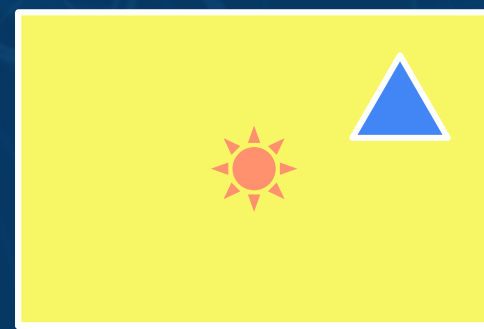


Night Layer

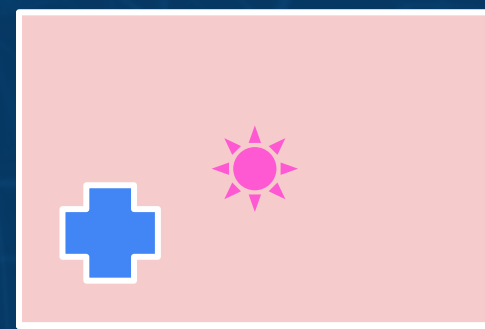
This is a simple example that changes the composite image based on the time of day



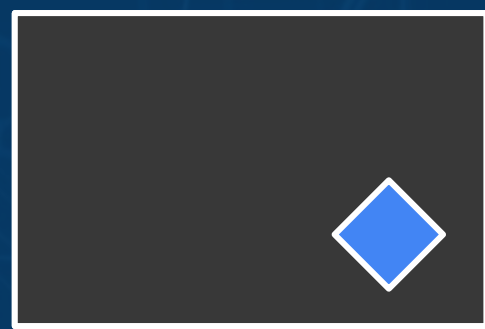
Morning Composite



Afternoon Composite



Evening Composite



Night Composite

# Types of Art xpNFTs

 Time-based

 Metadata-based

 Set-based

 Ownership-based

+ many more...



# Time-based Art xpNFTs

Time-based art xpNFTs change their appearance with the passage of time. The time duration is arbitrary and determined by the xpNFT author.



# Time-based Art xpNFTs

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## Evolution/Decay

The art visually evolves or degenerates (decays) over time. For example, a creature could start as an egg, hatch and grow over time. Conversely, a building could visibly age over time.





# Time-based Art xpNFTs

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## Transient

The art visually changes at a regular cadence that is time-based. This could be time-of-day, day-of-week, month or season. It could also be a set interval of time (odd, even, square, Fibonacci etc.).

# ☰ Metadata-based Art xpNFTs

Metadata-based art xpNFTs change their appearance according to the NFT and/or contract metadata fields. These typically map to specific visual attributes of the appearance.

# ☰ Metadata-based Art xpNFTs

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## Direct Mapping

The art visually changes based on metadata values. These values may be changed manually or based on external automated agents.

# ☉☉☉ Metadata-based Art xpNFTs

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## Community Mapping

The art visually changes by rotating sets of owner metadata values. This requires multiple mints of the NFT. With every mint, the metadata sets increase, adding more art variants.



# Set-based Art xpNFTs

Set-based art xpNFTs change their visual appearance based on other NFTs held by the NFT owner. These could be from the same or different artists depending on the set rules.



# Set-based Art xpNFTs

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## Artist Group

A group of artists each release an NFT with hidden layers for each other artist in the group. The hidden layers are revealed if an NFT owner also owns NFTs from other group members.



# Set-based Art xpNFTs

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## Series

The art visually changes as an NFT owner adds each additional NFT in a series. For instance, a series NFT added to the account, adds more intricate details to all the series NFTs in the account.



# Ownership-based Art xpNFTs

Ownership-based art xpNFTs change their visual appearance based on who is holding the NFT and for what duration.





# Ownership-based Art xpNFTs

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## Stayin' Alive

The NFT has a fixed life-span. The owner must sell or transfer the NFT to a new owner within its life-span or it self-destructs. The life counter resets with each new owner.



# Ownership-based Art xpNFTs

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## Aging

Each time an NFT is transferred to a new owner, it ages. The visual appearance of the NFT deteriorates like a real-world object that has had multiple owners.