



Valon Metaverse

Introduction

Valon project combines together virtual reality, NFT marketplace and decentralized exchange. In this paper we will focus mainly on the virtual reality app and how it will operate.

Core Concept

The VR project will be a web app and accessible right from the end users browser.

We can divide the core functionality into 3 parts:

- Empty VR properties
- NFT items
- VR world

Valon team will initially release a selection of empty VR properties that could be apartments, houses, outside areas, etc.

NFT items are used as decorations for the properties and will be provided by the team and also by the community content creators. The items are attached to a VR property of the user and exist therein.

The final phase of the project is to build a VR world that provides land plots the users can buy and link their VR property directly there for everyone to see.



VR Properties

These properties are 3d areas with boundaries, for example an apartment or a mansion.

Valon will release a selection of different properties with varying qualities and rarity explained below:

- **Common** – The ordinary one with less size, 55% of the collection
- **Uncommon** – A bigger and fancier, 30%
- **Rare** – Mansions, big apartments, 10%
- **Epic** – Compounds, castles, 5%
- **Unique** – One of a kind property

Generating properties

Each VR property will be generated in the smart contract and have some random qualities to create a large variety and difference. Users can later on buy & sell these empty properties in the marketplace. Valon team will release new properties as they see fit or give the users the possibility to mint ones randomly.

Every property can be decorated with items explained afterwards. We also plan to add physics simulation to some of the items and make the experience a bit more interactive for the user.

A separate smart contract will handle linking of NFTs, properties, users and items together.

Property auctioning

We will also consider to build an auction house where users can sell the complete ownership of properties + items in it.

Property Data Object
+ ID
+ NFT Model Address
+ Owned By User ID
+ Land Plot ID





NFT Items

NFT items are created by the team and content creators from our community. They could be:

- Furnitures
- Models of the properties outwardly
- Paintings
- Textures
- Lamps
- Walls
- Sculptures and pretty much anything

An item will always be attached to a specific VR property. The same item cannot exist in multiple places rather the owner will link it with one of his e.g. apartments.

All items will be owned by whoever buys it. The item can further be sold in the marketplace again. This empowers content creators and collectors.

Linking of items to the properties

This will happen by giving the item an ID of the property. User can re-attach the item as many times as he wants, but it can only be linked to a single property at a time.





VR World & Land Plots

The final phase of this project will be the creation of a proper VR metaverse. The main concepts are:

- Scalable VR world
- Multiplayer
- Owning land plots
- Linking your property with a plot
- Socialize with other users

How the linking of properties to lands will happen?

The user will first buy his share of the land, while already owning a VR property. He will also need a model of his property that will be shown outwardly to other users. Users can then visit other properties if the owner has given them a public access.

We will separate the VR world and the actual VR properties from each other unless we find a way to make them work together with a reasonable performance. Each property can be accessed directly from the browser as well.





User Interface

We want to make the end user experience lightweight and easy. He shouldn't need to download anything onto his own computer, rather everything is handled in the browser.

Users can move freely in their own properties and interact with objects, change colours & textures, rearrange the furnitures, etc.

User who logs in to the app will need to connect his wallet first. After he will see the selection of his owned properties and items. He can further navigate and open a property and customize it.

Multiplayer

In the initial steps we will not support multiplayer, rather this will become available after we have the properties & items fully developed.

The multiplayer will tie all the concepts together mentioned in this paper and make the Valon metaverse a place for social interaction.

This step will be developed separately because it requires a separate server architecture for communication between users, the location, messages, etc.

Roadmap

We will split the development into 4 parts:

- VR property demo
- Single properties
- Properties & items interaction
- VR world & land

The first three categories are planned for 2022 and the final part will be done as soon as we finish the previous tasks.