An introduction to assets on the iov42 platform

The iov42 platform allows for the modeling of virtually any asset that can be represented in a digital form. Unlike some other platforms, the way in which assets are defined on the platform is not tied to any underlying network asset, such as Ether for the Ethereum network, for example.

Asset Types on the Platform

The iov42 platform allows the custom definition of asset types. Once an asset type has been defined, instances or quantities of that asset type can be created.

The iov42 platform recognizes two main asset types:

- Quantifiable
- Unique

As the name suggests, **quantifiable assets** can be quantified, i.e. they involve a quantity that can be owned. Each instance of a quantifiable asset is the same and there is no way to distinguish between them. An example would be fiat currencies—the money you have.

Unique assets are all unique and are not fungible. Examples of these could include a car or a house — each instance of which is different from every other instance.

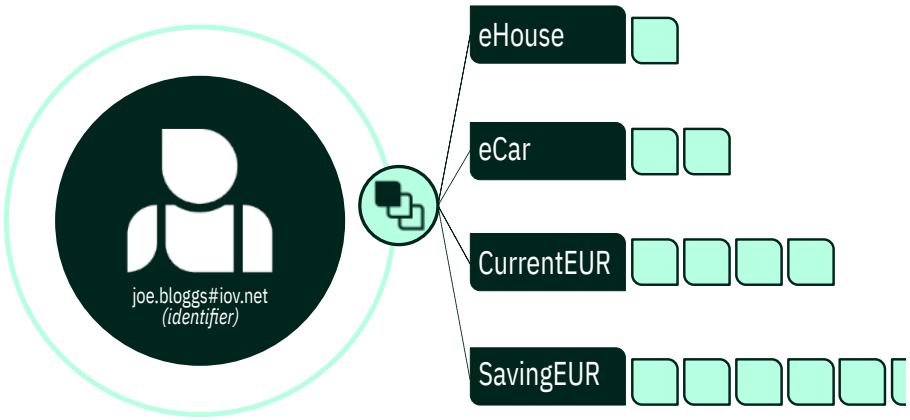
In the future, the iov42 platform will recognize a third asset type category — structural assets. Structural assets are assets that have a relationship that must be maintained, most commonly a singular collective asset with individual component assets.

A block of flats is a good example of a structural asset: the block itself is an asset, while each individual flat is also an asset, and the relationship between the whole and its parts is fixed.

Asset Ownership

Every asset on the iov42 platform must have an owner. It should be noted that the owner of an asset can be different to the identity that created the asset type.

An identity on the iov42 platform can own any number of different assets. Quantitative assets can be split into different accounts, similar to having multiple bank accounts of the same currency.



This approach has several benefits:

- Performance — partitioning of processing and storage by asset type and identity removes contention and bottlenecks seen on some other platforms
- Functionality — each asset type can have different functionality based on their own requirements
- Permissioning — intrinsic separation will facilitate clear permissioning models
- Adaptability — future legislation may affect certain asset types and this can be handled without affecting other asset types

Once assets are represented digitally and their ownership clearly defined in a trusted manner, then the opportunities to transfer those assets will lead to a whole new class of digital value transfer.

Claiming and Endorsing Assets

Similar to identities on the iov42 platform, assets and the accounts that hold them can also have claims and endorsements. However, only asset types and unique assets can have claims and endorsements.

It doesn't make sense for quantitative assets to have them, because a quantity of something is neither unique nor constant. However, an asset owner can make a claim about an account that holds quantitative assets.

For example, I could make a claim that my SavingEUR account is Anti-money laundering (AML) compliant.

When an asset owner creates a asset type or owns a unique asset or an account, it can be endorsed by a regulatory body, which bolsters the asset's trustworthiness. Building trust in assets is particularly important when considering regulatory compliance.