O5 – Addressing Scheme

**Overview:**  
An addressing system designed to model objects and entities across a domain as expansive as the real world. This system is predicated on the idea that O5 should be able to address any object that could exist in the real world. While this scheme is modeled on the “universe” it certainly can be abbreviated to a locality when used locally. When addresses are communicated outside of the local environment the requirement is that address be qualified at the level providing uniqueness. The upper levels are presumed to be common. For example, in the scheme, if I am referring to an O5 address without including “City” then the address contains the City of the current context. In most cases the “Reality” address is assumed to be the base Reality of Zero. A zero value for “Time Frame” means the current time but it could be a base reference if non-zero.

**Address Structure:**  
Parts of address are ordered from higher to lower with each part being represented by a 32-bit value. The values should be regularly increasing and interpreted as positive. This is not required as long as each 32-bit value is unique for that part in the address scheme.

1. Reality
2. Time Frame
3. Universe
4. System
5. Planet
6. Continent
7. Country
8. State
9. City
10. Street
11. Lot
12. Building
13. Room
14. Thing
15. Part
16. Action

**Usage:**The O5 address is 64 8-bit bytes in resolution. The names used in the scheme are suggestive and were picked by the author for ease of reference and to reflect a hierarchy that is common in the “real world.” These names-labels will be used as a basis for examples and common usage. They are not a requirement for implementation or technical compliance. It is suggested that they be used as a common dialect between implementations of O5 systems.