The Ad1 Programming Language

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Packed by default.

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Always packed.

Can be exponentiated to integers (Z). Zero is exactly same as pointer. Indexing is done in N-1 (which is basically Z of smaller size).

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Metals can not only be kept with as little loss as any other commodity, scarce anything being less perishable than they G.ed.p39 are, but they can likewise, without any loss, be divided into any number of parts, as by fusion those parts can easily be reunited again; The Wealth of Nations, page 23, Chapter IV Of the Origin and Use of Money

...Different metals have been made use of by different nations for this 40 [5] purpose. Iron was the common instrument of commerce among the ancient Spartans; copper among the ancient Romans; and gold and silver among all rich and commercial nations.

Since money has to be exchanged for valuable goods, it should itself possess value, and it must therefore have utility as the basis of value. Money, when once in full currency, is only received in order to be passed on, William Stanley Jevons, Money and the Mechanism of Exchange Chapter 5 Qualities of the Material of Money

Civil Government, so far as it is instituted for the security of property, is in reality instituted for the defense of the rich against the poor, or of those have some property against those who have none at all. Again adam smith wealth of nations

```
For A: Address\_Type,
    m:= sizeof(A),
    w:= sizeof(W),
    B:= SYSTEM\_RADIX, and
    heap\_height := m - log(B, m), and
    if (w >= m) and (heap\_height >= 0) -->
geomalloc: A --> Z = {
        If (MACHINE\_CONSENSUS\_NUMBER = INFINITY) -->
```

```
          For n: Z,
          geomalloc(n) = {
                    assert(n >= ceiling(log(B, m)) and n <= m);
                    mem\_end, heap\_end: W;
                    geomalloc.heap: A\^(heap\_height + 1);
                    i: Z <- n - log(B, m);
                    first: lvec(A);
                    Try\_from\_Bucket\_i:
                    first <- (heap[i], heap + i);
                    (first != A(1)) --> {
                              first <- atomic\_remove(first);
                              (first != first.prev) -->
                                        goto Try\_from\_Bucket\_i;
                              (i > n - log(B, m))

                    }
                    (i != heap\_height) -->
                              i+=1, goto Try\_from\_Bucket\_i;
                    (0) -->

          }
}
```