

# Unstable-Languages-beta: LD-Funcons-Index \*

The P<sub>L</sub>anCompS Project

LD-Funcons-Index.cbs | PLAIN | PRETTY

## OUTLINE

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\*Suggestions for improvement: [plancomps@gmail.com](mailto:plancomps@gmail.com).  
Reports of issues: <https://github.com/plancomps/CBS-beta/issues>.

# Computations

## Normal computation

### Flowing

- [ *Funcon* left-to-right
  - Alias* l-to-r
- Funcon* sequential
  - Alias* seq
- Funcon* effect
- Funcon* if-true-else
  - Alias* if-else
- Funcon* while-true
  - Alias* while ]

### Giving

- [ *Funcon* give
- Funcon* given ]

### Binding

- [ *Funcon* initialise-binding
- Funcon* bind-value
  - Alias* bind
- Funcon* bound-value
  - Alias* bound
- Funcon* scope ]

### Generating

- [ *Type* atoms
- Funcon* fresh-atom ]

### Storing

- [ *Funcon* initialise-storing
- Datatype* variables
  - Alias* vars
- Funcon* allocate-initialised-variable
  - Alias* alloc-init
- Funcon* assign
- Funcon* assigned ]

## Abnormal computation

### Terminating abruptly

- [ *Funcon* handle-abrupt ]

### Failing

- [ *Funcon* finalise-failing
- Funcon* fail
- Funcon* checked ]

# Values

## Value Types

```
[ Type  values
  Alias  vals
Funcon  is-value
  Alias  is-val
  Type  ground-values
  Alias  ground-vals ]
```

## Primitive values

### Booleans

```
[ Datatype  booleans
  Alias  bools
  Funcon  true
  Funcon  false ]
```

### Integers

```
[ Type  integers
  Alias  ints
  Type  natural-numbers
  Alias  nats
Funcon  integer-add
  Alias  int-add
Funcon  integer-multiply
  Alias  int-mul
Funcon  integer-divide
  Alias  int-div
Funcon  integer-is-less-or-equal
  Alias  is-less-or-equal
Funcon  decimal-natural
  Alias  decimal ]
```

### The null value

```
[ Datatype  null-type
  Funcon  null-value
  Alias  null ]
```

## Composite values

### Sequences of values

```
[ Funcon  length
  Funcon  index ]
```

### Lists

```
[ Datatype  lists ]
```

## Sets

```
[ Type   sets
  Funcon is-in-set
  Funcon is-subset
  Funcon set-unite
  Funcon set-intersect
  Funcon set-difference
  Funcon some-element ]
```

## Maps

```
[ Type   maps
  Funcon map
  Funcon map-lookup
    Alias lookup
  Funcon map-domain
    Alias dom
  Funcon map-override
  Funcon map-unite
  Funcon map-delete ]
```

## Abstraction values

### Generic abstractions

```
[ Type   abstractions
  Funcon abstraction
  Funcon closure ]
```

## Thunks

```
[ Datatype thunks
  Funcon   thunk ]
```

## Functions

```
[ Datatype functions
  Funcon   function
  Funcon   apply
  Funcon   supply ]
```