

# Languages-beta: SL-Funcons-Index \*

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

SL-Funcons-Index.cbs | PLAIN | PRETTY

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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* sequential
- Alias* seq
- Funcon* effect
- Funcon* if-true-else
- Alias* if-else
- Funcon* while-true
- Alias* while ]

### Giving

- [ *Funcon* initialise-giving
- Funcon* give
- Funcon* given ]

### Binding

- [ *Type* environments
- Alias* envs
- Datatype* identifiers
- Alias* ids
- Funcon* initialise-binding
- Funcon* bind-value
- Alias* bind
- Funcon* bound-value
- Alias* bound
- Funcon* closed
- Funcon* scope
- Funcon* collateral ]

### Generating

- [ *Funcon* fresh-atom ]

### Storing

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

### Interacting

#### Input

- [ *Funcon* read ]

## Output

```
[ Funcon  print ]
```

## Abnormal computation

### Terminating abruptly

```
[ Funcon  finalise-abrupting ]
```

### Failing

```
[ Funcon  fail  
  Funcon  else  
  Funcon  checked ]
```

### Returning

```
[ Funcon  return  
  Funcon  handle-return ]
```

### Breaking

```
[ Funcon  break  
  Funcon  handle-break ]
```

### Continuing

```
[ Funcon  continue  
  Funcon  handle-continue ]
```

## Values

### Value Types

```
[ Type  values  
  Alias  vals  
  Type  cast-to-type  
  Alias  cast  
  Funcon  is-equal  
  Alias  is-eq ]
```

### Primitive values

#### Booleans

```
[ Datatype  booleans  
  Alias  bools  
  Funcon  true  
  Funcon  false  
  Funcon  not ]
```

## Integers

```
[ Type    integers
  Alias    ints
Funcon    integer-add
  Alias    int-add
Funcon    integer-subtract
  Alias    int-sub
Funcon    integer-multiply
  Alias    int-mul
Funcon    integer-divide
  Alias    int-div
Funcon    integer-negate
  Alias    int-neg
Funcon    integer-is-less
  Alias    is-less
Funcon    integer-is-less-or-equal
  Alias    is-less-or-equal
Funcon    integer-is-greater
  Alias    is-greater
Funcon    integer-is-greater-or-equal
  Alias    is-greater-or-equal
Funcon    decimal-natural
  Alias    decimal ]
```

## The null value

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

## Composite values

### Lists

```
[ Datatype  lists
  Funcon    list-nil
  Alias     nil
  Funcon    list-cons
  Alias     cons
  Funcon    list-head
  Alias     head
  Funcon    list-tail
  Alias     tail ]
```

### Strings

```
[ Type    strings
Funcon    string-append
Funcon    to-string ]
```

## Maps

```
[ Funcon  map  
  Funcon  map-lookup  
    Alias  lookup  
  Funcon  map-override ]
```

## Objects

```
[ Datatype objects  
  Funcon  object  
    Funcon  object-feature-map ]
```

## Abstraction values

### Generic abstractions

```
[ Funcon  closure ]
```

## Functions

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