

Unstable-Funcons-beta: Unstable-Funcons-Index *

The P_LanCompS Project

Unstable-Funcons-Index.cbs | PLAIN | PRETTY

OUTLINE

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Unstable Funcons, for use only in Unstable Languages

Computations

Normal computation

Value indexing

```
[ Entity value-index
  Funcon initialise-index
  Funcon allocate-index
  Funcon lookup-index ]
```

Memos

```
[ Entity memo-map
  Funcon initialise-memos
  Funcon memo-value
  Funcon initialise-memo-value
  Funcon memo-value-recall ]
```

*Suggestions for improvement: plancomps@gmail.com.
Reports of issues: <https://github.com/plancomps/CBS-beta/issues>.

Abnormal computation

Postponing

```
[ Entity  postpone
  Funcon  postpone
  Funcon  postpone-after-effect
  Funcon  after-effect ]
```

Threads

Multithreading

```
[ Datatype  thread-ids
  Datatype  threads
  Funcon    thread-joinable
  Funcon    thread-detached ]
```

Initialisation

```
[ Funcon  initialise-multithreading ]
```

Activation

```
[ Funcon  multithread
  Funcon  thread-activate
  Funcon  thread-detach ]
```

Execution

```
[ Funcon  current-thread
  Funcon  thread-atomic
  Funcon  thread-yield
  Funcon  thread-spin
  Funcon  thread-suspend
  Funcon  thread-resume ]
```

Termination

```
[ Funcon  thread-terminate
  Funcon  is-thread-terminated
  Funcon  thread-value
  Funcon  thread-join
  Funcon  thread-exterminate ]
```

Scheduling

```
[ Funcon  update-thread-stepping
  Funcon  update-thread-schedule
  Funcon  current-thread-schedule
  Funcon  is-thread-preemptible
  Funcon  thread-preemptible
  Funcon  thread-cooperative ]
```

Thread synchronisation

Syncs

```
[ Datatype   syncs
  Funcon    sync-create
  Funcon    sync-feature
  Funcon    is-sync-feature ]
```

Sync features

```
[ Datatype   sync-features
  Funcon    sync-waiting-list
  Funcon    sync-held
  Funcon    sync-holder
  Funcon    sync-count
  Funcon    sync-feature-create ]
```

Locks

```
[ Funcon    is-exclusive-lock-holder ]
```

Spin locks

```
[ Funcon    spin-lock-create
  Funcon    spin-lock-sync
  Funcon    spin-lock-release ]
```

Exclusive locks

```
[ Funcon    exclusive-lock-create
  Funcon    exclusive-lock-sync
  Funcon    exclusive-lock-sync-else-wait
  Funcon    exclusive-lock-release ]
```

Reentrant locks

```
[ Funcon    reentrant-lock-create
  Funcon    reentrant-lock-sync
  Funcon    reentrant-lock-sync-else-wait
  Funcon    reentrant-lock-release
  Funcon    reentrant-lock-exit ]
```

Semaphores

```
[ Funcon    semaphore-create
  Funcon    semaphore-sync
  Funcon    semaphore-sync-else-wait
  Funcon    semaphore-release ]
```

Shared-exclusive locks

```
[ Funcon    rw-lock-create
  Funcon    rw-lock-sync-exclusive
  Funcon    rw-lock-sync-shared
  Funcon    rw-lock-sync-exclusive-else-wait
  Funcon    rw-lock-sync-shared-else-wait
  Funcon    rw-lock-release-exclusive
  Funcon    rw-lock-release-shared ]
```

Notifications

Barriers

```
[ Funcon  barrier-create  
  Funcon  barrier-sync  
  Funcon  barrier-sync-else-wait ]
```

Conditions

```
[ Funcon  condition-create  
  Funcon  condition-wait  
  Funcon  condition-wait-with-lock  
  Funcon  condition-notify-all  
  Funcon  condition-notify-first ]
```

Rendezvous

```
[ Funcon  rendezvous-create  
  Funcon  rendezvous-sync  
  Funcon  rendezvous-sync-else-wait ]
```