

Forth Day 2009
Forth Foundation Library
Overview

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Overview

- Object-Oriented
- Extensive Class Library
- Supported on several Forth engines
- Depending on the target architecture and Forth engine, FFL is portable

Object-Oriented

- FFL is a class library
- Objects have data and methods
- Objects can be static and dynamic
- New objects can be created from other objects using inheritance

Extensive Class Library

- xos XML/HTML writer
- tst Module testing
- xis XML/HTML reader
- zif gzip file reader
- trm Terminal escape sequence outputter

Extensive Class Library

- `tos` Text output stream
- `xos` XML/HTML writer
- `zif` GNU Zip (gzip) file reader
- `trm` Output terminal escape sequence
- `xis` XML/HTML reader
- `tst` Module testing
- `a32` Adler32 algorithm

Extensive Class Library

- tmr Timer module
- tis Text input stream
- stt String table module
- stc ANS structure module
- str Dynamic text string
- snl Generic single linked list

Extensive Class Library

- `snn` Generic single linked list node
- `spf` Sprintf string formatter
- `sni` Generic single linked list iterator
- `rng` Pseudo random number
generator
- `rdg` Distributed pseudo random
number generators
- `nnt` Generic n-tree

Extensive Class Library

- scl Single linked cell list
- sci Single linked cell list iterator
- scn Single linked cell node
- sh2 SHA-256 module
- sh1 SHA-1 module
- rgx Regular expressions

Extensive Class Library

- nnn Generic n-tree node
- ncn n-tree cell node
- nfe Non-deterministic finite automata
expression
- nfs Non-deterministic finite automata
state
- msc Message catalog

Extensive Class Library

- nni n-tree base Iterator
- nct n-tree cell module
- md5 MD5 message digest algorithm
- nci n-tree cell iterator
- hci Hash cell table iterator
- gzi GNU Zip (gzip) input base module

Extensive Class Library

- hct Hash cell table
- hni Generic hash table iterator
- hnt Generic hash table
- log Logging module
- hcn Hash table cell node
- lbf Linear buffer module

Extensive Class Library

- hnn Generic hash table node
- fsm Finite state machine
- est String with escaped characters
- dti Date time iterator module
- gmo Gettexts mo-file import
- dom XML document object model

Extensive Class Library

- gzf GNU Zip (gzip) file
- enm Enumerations
- fst FSM state
- dtm Date time data type
- dos Date-time output stream
- ftr FSM transition

Extensive Class Library

- frc Fraction module
- bis Bit input stream module
- bnn Generic binary tree node
- bnt Generic binary tree
- bni Generic binary tree iterator
- car Cell array module

Extensive Class Library

- cbf Circular buffer module
- bct Binary cell tree module
- crc 32-bit cyclic redundancy check
- dnn Generic double linked list node
- dci Double linked cell list iterator
- cpx Complex number data type

Extensive Class Library

- dnl Generic double linked list
- dcl Double linked cell list
- chs Character set module
- chr Char data type
- dcn Double linked cell list node
- dni Generic double linked list iterator

Extensive Class Library

- arg Arguments parser
- bcn Binary cell tree node
- bci Binary cell tree iterator
- act AVL binary tree cell module
- bar Bit array module
- acn AVL binary tree cell node module

Text Input Stream Example

\ Example: Use standard input stream with a reader

\ Create a text input stream on the heap

```
tis-new value tis
```

\ Setup the reader callback word

```
: tis-reader ( fileid -- c-addr u | 0 )  
  pad 64 rot read-file throw  
  dup IF  
    pad swap  
  THEN  
;
```

```
stdin dup ' tis-reader tis tis-set-reader \ Setup a reader with standard input
```