Redbin[illegible]

[illegible]

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Redbin□□□□□□Red□□Redbin□□□□□□□ REBin □□□□□□□□□□□□□□□□□Redbin□word□□□□□□□□□□□□□□□□□□□□any-block!□□□□□□□□□□□□□□□□□□

Redbin□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ `load/binary` □ `mold/binary` □□

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2. □□□
3. □□□□□□□□□□□□□□□□□□□□

2. □□□□

```
magic="REDBIN" (6), version=1 (1), flags (1), length (4), size (4)

flags (□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□)□
    bit0: □□□□□□□□□
    bit1: □□□□□
    bit2: □□□□□□□□
    bit3-7: □□□□□□□□□□

length : □□□□□□□□□□□□□□
size   : □□□□□□□□□□□□□□□□□□□
```

□□

3. □□□□□□□

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- NUL□□□□□□□□□□□□□□□

□□□□□□□□□□□□□□□□ *index* □□□□□□□□□□word□□□□□□□□□□□□□□□□□□□□□□□□□□64□□□□□□□□□□□□□□□□□□□□□□□UTF-8□□

□□□□□□□□□□□

```
□□□□□□ length (4), size (4), offset1 (4), offset2 (4),...
□□□□□□ □□□□□
```

`length` □□□□□□□□□□□□□□□□□□□□□□ `size` □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

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□□□□□□□□□□Red□□ block! series □□□□□□□□

4. □□□□□

□□□□□□□□□32□□□ `header` □□□□□□□□□

- bit31 : new-line□□□□□
- bit30 : no-values□□□□□□□context□□□
- bit29 : stack?□□□□□□□context□□□
- bit28 : self?□□□□□□□□□□□□□□
- bit27 : set?□□□□□□word□□□
- bit26-16 : □□□□□□□

- bit15-8 : □□□□□series□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
- bit7-0 : □□□

□□□□□□□□□□□□□□□□□□

4.1. □□□□□

```
□□□□□□ header (4)
□□□□□□ n/a

header/type=0
```

□□□□□□□□□□□□□□□□□□64□□□□□□□□□□□□□□□□□□□□□□

4.2. □□□□

```
□□□□□□ header (4), value (4)
□□□□□□ □□

header/type=1
```

4.3. Unset!

```
□□□□□□ header (4)
□□□□□□ □□

header/type=2
```

4.4. None!

```
□□□□□□ header (4)
□□□□□□ □□

header/type=3
```

4.5. Logic!

```
□□□□□□ header (4), value=0|1 (4)
□□□□□□ □□
```

```
header/type=4
```

4.6. Block!

```
[illegible] header (4), head (4), length (4), ...
[illegible] [illegible]

header/type=5
```

head [illegible] length [illegible]

4.7. Paren!

```
[illegible] header (4), head (4), length (4), ...
[illegible] [illegible]

header/type=6
```

block![illegible]

4.8. String!

```
[illegible] header (4), head (4), length (4), data (unit*length) [, padding (1-3)]
[illegible] [illegible]

header/type=7
header/unit=1|2|4
```

head [illegible] unit [illegible]1[illegible]2[illegible]4[illegible] length [illegible]16777215(2^24 - 1)[illegible]UCS-1[illegible]UCS-2[illegible]UCS-4[illegible]NUL[illegible] length [illegible]1[illegible]3[illegible]NUL[illegible]32[illegible]

4.9. File!

```
[illegible] header (4), head (4), length (4), data (unit*length)
[illegible] [illegible]

header/type=8
header/unit=1|2|4
```

□□□□□□□□□□□□□□□□□□□□□

4.10. Url!

```
□□□□□□ header (4), head (4), length (4), data (unit*length)
□□□□□□ □□

header/type=9
```

□□□□□□□□□□□□□□□□□□□□□

4.11. Char!

```
□□□□□□ header (4), value (4)
□□□□□□ □□

header/type=10
```

4.12. Integer!

```
□□□□□□ header (4), value (4)
□□□□□□ □□

header/type=11
```

4.13. Float!

```
□□□□□□ [padding=0 (4),] header (4), value (8)
□□□□□□ □□

header/type=12
```

`value` □□□□□□□64□□□

4.14. Context!

```
□□□□□□ header (4), length (4), symbol1 (4), symbol2 (4),..., value1 [any-type!], value2
[any-type!], ...
□□□□□□ □□

header/type=14
header/no-values=0|1
```

```
header/stack?=0|1
header/self?=0|1
```

□□□□□□function!□object!□□□□□□□□□□□□□□□□□□Red□□word□□□ `length` □□ `no-values` □□□ `stack?` □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ `self?` □□□□□□□□□□□□□□□□□word□□□□□□□□ `self` □□□□□□□□□□□□□□□□□□□

4.15. Word!

```
□□□□□□ header (4), symbol (4), context (4), index (4)
□□□□□□ □□

header/type=15
header/set?=0|1
```

`context` □□□□□context!□□□□□Redbin□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□Redbin□□□□□□□□□word□□□□□□□□□□□□□□□□□□□ `context` □ -1 □□□□□□□□□□□□□□□□□□

`set?` □□□□□□□□□□□□□□□□□□□□□□ [any-value!] □□□□□□□□□□□□□□□□□□□□□□□□word□□word□□□□□□□□□□□□□□□□□□□□□□□□□□□□

4.16. Set-word!

```
□□□□□□ header (4), symbol (4), context (4), index (4)
□□□□□□ □□

header/type=16
```

word!□□□□□□

4.17. Lit-word!

```
□□□□□□ header (4), symbol (4), context (4), index (4)
□□□□□□ □□

header/type=17
```

word!□□□□□□

4.18. Get-word!

```
□□□□□□ header (4), symbol (4), context (4), index (4)
□□□□□□ □□

header/type=18
```

word!□□□□□□

4.19. Refinement!

```
□□□□□□ header (4), symbol (4), context (4), index (4)
□□□□□□ □□

header/type=19
```

word!□□□□□□

4.20. Issue!

```
□□□□□□ header (4), symbol (4)
□□□□□□ □□

header/type=20
```

4.21. Native!

```
□□□□□□ header (4), ID (4), spec [block!]
□□□□□□ □□

header/type=21
```

`ID` □□□□□ `natives/table` □□□□□□□□□□□□□□□□□□□□□□□□□□

4.22. Action!

```
□□□□□□ header (4), ID (4), spec [block!]
□□□□□□ □□

header/type=22
```

ID □□□□ actions/table □□□□□□□□□□□□□□□□□□□□

4.23. Op!

```
□□□□□□ header (4), symbol (4),
□□□□□□ TBD

header/type=23
```

symbol □□□op!□□□□□□□□□action□native□□□function□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

4.24. Function!

```
□□□□□□ header (4), context [context!], spec [block!], body [block!], args [block!], obj-
ctx [context!]
□□□□□□ □□

header/type=24
```

4.25. Path!

```
□□□□□□ header (4), head (4), length (4), ...
□□□□□□ □□

header/type=25
```

block!□□□□□□□□□□□□□□□□□

4.26. Lit-path!

```
Default: header (4), head (4), length (4), ...
Compact: TBD

header/type=26
```

block!□□□□□□□□□□□□□□□□□

4.27. Set-path!

```
□□□□□□ header (4), head (4), length (4), ...
□□□□□□ □□
```

```
header/type=27
```

block!□□□□□□□□□□□□□□□□□□

4.28. Get-path!

```
□□□□□□ header (4), head (4), length (4), ...
□□□□□□ □□

header/type=28
```

block!□□□□□□□□□□□□□□□□□□

4.29. Bitset!

```
□□□□□□ header (4), length (4), bits (length)
□□□□□□ □□

header/type=30
```

`length`
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□8□□□□□□□□□□□□□□□□□□□□□bitset!□series□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
`bits` □□□□□□□□□□□□□□□□32□□□□□□□□□□□□□NUL□□□□□□□□□□□□□□□□□□

4.30. Point!

```
□□□□□□ header (4), x (4), y (4), z (4)
□□□□□□ □□

header/type=31
```

4.31. Object!

```
□□□□□□ header (4), context [reference!], class-id (4), on-set-idx (4), on-set-arity (4)
□□□□□□ □□

header/type=32
```

`on-set-idx` □□□□□□□□□□□□□□□□□□□□□ `on-change*` □□□□□□□□□□□□□□ `on-set-arity` □□□□□□□□□□□□□□□□□□□

4.32. Typeset!

```
□□□□□□ header (4), array1 (4), array2 (4), array3 (4)
□□□□□□ □□

header/type=33
```

4.33. Error!

```
□□□□□□ header (4), context [reference!]
□□□□□□ □□

header/type=34
```

4.34. Vector!

```
□□□□□□ header (4), head (4), length (4), values (unit*length)
□□□□□□ □□

header/type=35
```

`unit` □vector□□□□□□□□□□□□□□□□□□1□2□4□8□□□□□□□□□ `values` □□□□□□□□□□□□□□□□□ `values` □□□□ `unit` □1□2□□□□□□□□□□□□□□32□□□□□□□□□NUL□□□□□□□□□□□□□□□□

4.35. Pair!

```
□□□□□□ header (4), x (4), y (4)
□□□□□□ □□

header/type=37
```

4.36. Percent!

```
□□□□□□ [padding=0 (4),] header (4), value (8)
□□□□□□ □□

header/type=38
```

percent!□□□64□□□□□□□□□□□□□□□ `value` □□□□□□□□□□□64□□

4.37. Tuple!

```
□□□□□□□ header (4), array1 (4), array2 (4), array3 (4)
□□□□□□□ □□

header/type=39
```

4.38. Map!

```
□□□□□□□ header (4), length (4), ...
□□□□□□□ □□

header/type=40
```

`length` □□□□□□map□□□□□□□□□□□□□□□□□□□□□□□□□map□□□□length□□

4.39. Binary!

```
□□□□□□□ header (4), head (4), length (4), ...
□□□□□□□ □□

header/type=41
```

block!□□□□□□□□□□□□□□

4.40. Time!

```
□□□□□□□ [padding=0 (4),] header (4), value (8)
□□□□□□□ □□

header/type=43
```

time!□□□64□□□□□□□□□□□□□□□□□□ `value` □□□□□□□□□□□□64□□□

4.41. Tag!

```
□□□□□□□ header (4), head (4), length (4), data (unit*length)
□□□□□□□ □□

header/type=44
header/unit=1|2|4
```

string!□□□□□□□□□□□□□□□□□

4.42. Email!

```
□□□□□□□ header (4), head (4), length (4), data (unit*length)
□□□□□□□ □□

header/type=45
header/unit=1|2|4
```

string!□□□□□□□□□□□□□□□□□

4.43. Date!

```
□□□□□□□ header (4), date (4), time (8)
□□□□□□□ □□

header/type=47
```

date□□ `red-date!` □□□□32□□□integer□□□□□□□□□time□64□□□□□□□□□□□□□□□□□

4.44. Reference!

```
□□□□□□□ header (4), count (4), index1 (4), index2 (4), ...
□□□□□□□ □□

 header/type=255
```

□□□□□□□□□□□□□any-block!□□□object!□□□□□□□□□□□□□□□□□□□□□□□□□□□Redbin□□□□□□□□□□□□□□□□□□□□□□□□□block□□□ `index` □□□□□□□□□□□□□□□□□□□□□□□□□series□object□□□□□□ `count` □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□object□□□□□□□□□□□□object□□□□□□□□□□□0□□□□1□□□□□□□□□1□□□□2□□□