```
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// For a class method:
*bar {
    this.deprecated(thisMethod, OtherClass.class.findMethod(\bar));
    ...
}
```

# **Printing and Introspection**

### .post

Print a string representation of the receiver to the post window.

```
"hello".post; "hello".post; "";
```

# .postln

Print a string representation of the receiver followed by a newline.

```
"hello".postln; "hello".postln; "";
```

### .postc

Print a string representation of the receiver preceded by comments.

```
"hello".postc; "hello".postc; "";
```

## .postcln

Print a string representation of the receiver preceded by comments, followed by a newline.

```
"hello".postcln; "hello".postcln; "";
```

### .postcs

Print the compile string representation of the receiver, followed by a newline.

```
"hello".postcs; "hello".postcs; "";
```

### .dump

Print a detailed low level representation of the receiver to the post window. Except for the List class, this method is not overridden in other classes. Any of the MetaClasses, Classes and Instances can be used by this method.

```
Meta_Object.dump // the meta class of the class Object
Object.dump // the class called Object
Object.new.dump // an istance of the class Object
```

### Discussion:

- The detailed low level format and information varies depending on the receiver.
- Some instance objects, especially unique objects, return the class name and value (also low data if necessary) of the dumped object:

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1.0.dump

64-bit version of SuperCollider returns:

```
Float 1.000000 00000000 3FF00000 -> 1.0
```

The last two groups of an 8-digit integer are the raw hexadecimal representation of the 64-bit double value according to IEEE 754 Floating Point (https://ieeexplore.ieee.org/document/8766229). Each part is represented as follows:

#### Integer

```
1.dump

Integer 1
```

#### Char

```
$1.dump

Character 49 '1'
-> 1
```

The integer between *Character* and '1' is the ASCII value of that character.

#### **Symbol**

```
\1.dump

Symbol '1'
-> 1
```

- · Some instance objects return more detailed information, such as
  - addrress in virtual memory (the hexadecimal number prefixed with 0x),
  - garage collector color (gc),
  - data format type (fmt),
  - o flags for immutablity, finalization and garbage collector debug sanity check (flg),
  - o size class (set),
  - and so on (the information on the second and subsequent lines varies depending on the class to which the instance belongs)

with the class name of the instance:

# **Array**

```
[1, 2].dump;

Instance of Array {
   indexed slots [2]
    0 : Integer 1
    1 : Integer 2
}
-> [1, 2]
(0x1552c9558, gc=78, fmt=01, flg=00, set=02)
```

# List

```
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               List's array:
               Instance of Array {
                                       (0x13b3cb5b8, gc=6C, fmt=01, flg=00, set=02)
                 indexed slots [2]
                     0 : Integer 1
                      1: Integer 2
               -> List[1, 2]
       Set
              Set[1, 2].dump;
               Instance of Set {
                                     (0x1489e2068, qc=A4, fmt=00, flq=00, set=02)
                 instance variables [2]
                   array : instance of Array (0x13b458838, size=4, set=2)
                    size: Integer 2
               -> Set[2, 1]
```

# **System Information**

## .gcInfo

Posts garbage collector information in a table format.

#### Discussion:

- flips: the number of times the GC "flipped", i.e. when it finished incremental scanning of all reachable objects
- collects: the number of partial collections performed
- · nalloc: total number of allocations
- · alloc: total allocation in bytes
- grey: the number of "grey" objects, i.e. objects that point to reachable objects and are not determined to be (un)reachable yet

Then for each size class: numer of black, white and free objects, total number of objects and the total set size.

```
flips 241 collects 689096
                                nalloc 40173511
                                                     alloc 322496998
                                                                         grey 346541
   bwf t sz:
                            0 368573
                                                    2955640
                 882
                                        369455
                6197
                         122 5702377
                                         5708696
                                                     91339136
1
   bwf t sz:
2
                 947
                            4 1500009
                                                     48030720
   bwf
       t sz:
                                         1500960
3
                8056
                       65201 301800
                                                  24003648
   bwf
       t sz:
                                        375057
                                3457
4
                                          7649
                                                     979072
   bwf
       t sz:
                4047
                         145
5
                                            854
   bwf
       t sz:
                  422
                            1
                                 431
                                                     218624
6
                  124
                            2
                                            198
   bwf
       t sz:
                                   72
                                                     101376
                            1
   bwf
       t sz: 153504
                                    0
                                        153505
                                                  157189120
8
                            0
                                             22
   bwf
       t sz:
                   22
                                    0
                                                      45056
9
                    5
                                              5
   bwf
       t sz:
                            0
                                    0
                                                      20480
10
                     5
                                               5
    bwf t sz:
                             0
                                     0
                                                       40960
    bwf t sz:
                     2
                             0
                                               2
12
                                     0
                                                       65536
                             0
                                               1
13
    bwf t sz:
                     1
                                     0
                                                       65536
                                     3
                                                    16777216
19
    bwf t sz:
                     1
                             0
                                               4
tot bwf t sz: 174215
                        65476 7876722
                                          8116413
                                                      341832120
```

You can also query the amount of free memory with <code>Object.totalFree</code> and dump the currently grey objects with <code>Object.dumpGrey</code>. More memory status methods are: largestFreeBlock, <code>gcDumpSet</code>, and <code>gcSanity</code>.

# **Iteration**

.do(function)