

Data worksheet—structure type

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Describe the data:

```
; Dog is a structure containing:
   STRUCTURE TYPE

; - posx ( XCoord of the pet )
   PART 1 NAME      PART 1 TYPE, INTERPRETATION

; - posy ( YCoord of the pet )
   PART 2 NAME      PART 2 TYPE, INTERPRETATION

; - fullness ( show how much the pet is hungry )
   PART 3 NAME      PART 3 TYPE, INTERPRETATION
   happiness        show how much the pet is huppy
   ...
   tailup?          show if the tail is up or down.

(define-struct dog
  STRUCTURE TYPE

  ( posx      posy      fullness ... ) )
    PART 1 NAME  PART 2 NAME  PART 3 NAME
    happiness    tail
```

; Examples:

```
(define dog-hungry ; dog needs to be fed.
  EXAMPLE NAME      DESCRIPTION/EXPLANATION

  (make- dog s 0 0 10 100 ) true
        STRUCTURE TYPE VALUE 1 VALUE 2 VALUE 3 ... )

(define dog-died ; dog died due to hunger
  EXAMPLE NAME      DESCRIPTION/EXPLANATION

  (make- dog 0 0 -1 100 ) true
        STRUCTURE TYPE VALUE 1 VALUE 2 VALUE 3 ... )

  dog leaves due to
(define dog-leave ; feel unhappy for more than 100 ticks.
  EXAMPLE NAME      DESCRIPTION/EXPLANATION

  (make- dog 0 0 10 -101 ) true
        STRUCTURE TYPE VALUE 1 VALUE 2 VALUE 3 ... )
```