BILD ENGINE SIMULATOR CODE

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This pedagogical code is valid, executable LISP code. Each conventional LISP function definition has been renamed to be more semantically appealing. For example:

defun	in-order-to
(and a b)	(a and b)
(not (eq object nil))	the-object-exists

PEDAGOGICAL CODE

```
(in-order-to evaluate-a-distinction-circuit take-these-steps
 (initialize-the-hardware)
 (save-the-register-states)
 (repeat-processing-until-done))

(in-order-to initialize-the-hardware take-these-steps
 (clear-the-mask)
 (clear-the-input-vector)
 (clear-the-output-vector)
 (clear-the-register-loaded-vector)
 (load-the-positive-inputs)
 (activate-the-positive-inputs)
 (when the-clock-permits-output (clear-the-register-state-vector)))

(in-order-to load-the-positive-inputs take-these-steps
 (for-every-input
   (when the-input-is-positive mark-the-input-vector)))

(in-order-to activate-the-positive-inputs take-these-steps
 (for-every-object
   (when the-object-is-a-positive-input delete-the-object)
   (when the-object-is-a-register
     delete-the-object
     (when the-object-is-a-register
      (when the-register-is-an-output mark-the-output-vector)
      delete-all-the-containers-of-the-register))))

(in-order-to delete-the-containers of-an-object
 (for-every-other-object
  (when this-object-is-contained-by-the-other-object
    delete-the-other-object)))
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(in-order-to repeat-processing-until-done  take-these-steps
 (when (there-is-more-to-do)
   (mark-the-output)
   (save-the-register-states)
   (repeat-processing-until-done)))

(in-order-to mark-the-output take-these-steps
 (for-every-object
  (when (the-object-exists and the-object-is-empty)
    (when the-register-is-an-output mark-the-output-vector)
    mark-the-register-as-inert
   delete-the-containers-of-the-object)))

(in-order-to then-delete-the-containers of-an-object
 delete-the-object
 delete-all-the-containers-of-the-register)

(in-order-to save-the-register-states take-these-steps
 (when the-clock-permits-output
   (for-every-object
    (when (the-other-object-is-a-register-input  and it-has-been-deleted)
      (then (when the-register-state-is-not-stored
            mark-the-register-state-vector))))))

(in-order-to mark-register-as-loaded of-an-object
 (when that-object-is-a-register-input
  (then mark-the-register-as-done)))

(in-order-to determine-the-register-with-the-input  of-an-object
 (for-every-other-object
  (when this-object-is-contained-by-the-other-object
    the-other-object-gets-the-input)))

(in-order-to there-is-more-to-do take-these-steps
 (for-every-object
  (when the-object-exists there-is-more-processing-to-do)))

(in-order-to determine-the-emptiness of-an-object
 (for-every-other-object
  (when (the-other-object-exists and this-object-contains-the-other-object)
    this-object-is-not-empty)))
```