

*CAUTION: LSP 10/79 W.D. Johnson
*Utility functions for use with CA

*FREECONS returns those objects which are not embedded
(DE FREECONS NIL
 (FOR (C IN :C-LIST)
 (SAVE C)
 (WHEN (NOT (GET C 'EMBEDDED))

*DELIVFREE returns :c-list with embedded cons in parens (eg "LISred")
*since :C-LIST is actually most recent first, DELIVFREE also reverses it.
(DE DELIVFREE ()
 (LET (C0 NIL)
 (MAPC (FUNC (C)
 (SET) CL
 (CONS (COND ((GET C 'EMBEDDED) (LIST C)) (C))
 CL)))
 :C-LIST)
 CL))

*ACTIVE-REQS returns list of active requests
(DE ACTIVE-REQS NIL
 (LET
 (REQS (FOR (X IN :REQUEST-POOLS) (SPICE (COPY (GET X 'REQUESTS)
 (FOR (X IN REQ) (WHEN (GET X 'ACTIVE)) (SAVE X)

*PRINT-CLIST prints out the current conceptualizations
(DE PRINT-CLIST NIL
 (FOR (X IN (REVERSE (FREECONS))) (DO (MSG T X)
 (CDPRCON (EVAL X))

*PRINT-REQS prints out active requests
(DE PRINT-REQS NIL
 (FOR (X IN (ACTIVE-REQS)) (DO (MSG T X T)
 (SPRINT (GET X 'BODY) 1)

*chases pointers to find "real" concept (eg one that wasn't embedded by SET)
(DE REALCON (CON)
 (LOOP (INITIAL NCON CON)
 (WHILE (SET) NCON (GET CON 'REALCON)))
 (DO (SET) CON NCON)
 (RESULT CON)))

*All out the last elt of a list.
(DE BOTLAST (X)
 (CDIFF X (LAST X)))