;This is the file CA0.LSP; it contains utility functions used throughout
;the conceptual analyzer;

;This is very useful to avoid problems in functions due to some CDs being
;atomized and others not;

(DE ATOM-EVAL (X) (COND ((ATOM X) (EVAL X)) (T X)))

;All flags are placed on the list :FLAGS; the following functions test,
;add, and remove flags;

(DE FLAGON (FLAG) (MEMBER FLAG :FLAGS))

(DE REMOVE-FLAG (FLAG)
   (SETQ :FLAGS (REMOVE FLAG :FLAGS)))

(DE ADD-FLAG (FLAG)
   (OR (MEMBER FLAG :FLAGS) (SETQ :FLAGS (CONS FLAG :FLAGS))))

;The following functions produce unique atoms of the appropriate type
;and do the required book-keeping;

(DEX new-con ()
     (PUSH (NEWSYM CON) :ALL-CONS))

(dex new-lex ()
  (push (newsym lex) :all-lexes))

(DEX NEW-REQ ()
     (PUSH (NEWSYM REQ) :ALL-REQS))

(DEX NEW-POOL ()
     (PUSH (NEWSYM POOL) :ALL-POOLS))

;This function is used in writing dictionary entries; the usual form is
;(DEF WORD
; (ATTS: ADJ NOUN ...)
; (REQUESTS: (REQUEST ...) (REQUEST ...) ...)

(DF DEF (STUFF)
    (LET (WD (CAR STUFF))
        (MAPC (FUNC (THING)
                (PUTPROP WD (CDR THING) (CAR THING)))
            (CDR STUFF))))