

File created: 15-Aug-90 13:17:56 {DSK}<usr>local>Ide>SOURCES>loops>SYSTEM>LOOPSUSERINTERFACE.;2

changes to: (VARS LOOPSUSERINTERFACECOMS)

previous date: 29-Feb-88 10:32:58 {DSK}<usr>local>Ide>SOURCES>loops>SYSTEM>LOOPSUSERINTERFACE.;1

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

```
::  
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```

(RPAQQ **LOOPSUSERINTERFACECOMS**

```
((* * Support for ?= and methods)  
  (FNS GetMethodArgs)  
  (VARS (TTYIN?=FN 'GetMethodArgs))  
  (* * Add a Loops item to the background menu)  
  [ADDVARS (BackgroundMenuCommands ("Loops Icon" '(_Proto ($ LoopsIcon)  
                                                                    Blink)  
                                "Bring the Loops Icon to the top of the screen"  
                                (SUBITEMS ("Browse Class"  
                                          '(_Proto ($ LoopsIcon)  
                                                BrowseObject)  
                                          "Prompts for a class name and opens a browser on the  
                                          class"  
                                          (SUBITEMS ("Browse Class" '(_Proto ($ LoopsIcon)  
                                                                    BrowseObject)  
                                                    "Prompts for a class name and opens  
                                                    a browser on the class"  
                                                    ("Browse Supers" '(_Proto ($ LoopsIcon)  
                                                                    SupersBrowse)  
                                                    "Prompts for a class name and opens a  
                                                    browser on the class's supers")))  
                                          ("Browse File" '(_Proto ($ LoopsIcon)  
                                                                    FileBrowse)  
                                          "Opens a Loops FileBrowser on a selected file"  
                                          (SUBITEMS ("Browse File"  
                                                    '(_Proto ($ LoopsIcon)  
                                                        FileBrowse)  
                                                    "Opens a Loops FileBrowser on a  
                                                    selected file"  
                                                    ("Edit FileComs" '(_Proto ($ LoopsIcon)  
                                                                    EditFileComs)  
                                                    "Edit the FILECOMS of a selected  
                                                    file"  
                                                    ("Cleanup File" '(_Proto ($ LoopsIcon)  
                                                                    CleanupFile)  
                                                    "Do a CLEANUP on a selected file"]  
                                (VARS (BackgroundMenu NIL))  
                                (* * The PPDefault window)  
                                (VARS (PPDefault \TopLevelTtyWindow))  
                                (GLOBALVARS PPDefault)))  
  (* * Support for ?= and methods)
```

(DEFINEQ

(**GetMethodArgs**

[LAMBDA (fn)

; Edited 25-Nov-87 11:57 by Bane

;;; Used in the TTYIN function when the user types in ?=

```
(SELECTQ fn  
  (( _ _Super _New _Proto _Process SEND) ;; Try to find the arguments to a message  
    (PROG (obj sel class actuals)  
      ;; Parse the message  
      (SETQ actuals (TTYIN.READ?=ARGS))  
      (if (NULL actuals)  
          then (RETURN))  
      (SETQ obj (CAR actuals))  
      (SETQ sel (CADR actuals))  
      ;; Try to compute the class of the object that will receive the message  
      [SETQ class (LET [(evalObj (COND  
                                ((Object? obj) ; If the obj form is already any object, the value of the obj form will  
                                ; still be that object  
                                obj)  
                        [(ATOM obj) ; An atom can be evaluated safely with no side effects  
                          (CAR (NLSETQ (EVAL obj))  
                          (NOT (LISTP obj))
```

```

; God knows what to do if the form isn't an object, an atom, or a
; list
NIL)
(EQ '$ (CAR obj))
; The form ($ name) can be evaluated safely with no side effects
(EVAL obj)
(AND (EQ '$! (CAR obj))
      (ATOM (CADR obj)))
; The form ($! litatom) can be evaluated safely with no side
; effects
(EVAL obj)
(AND (EQLLENGTH obj 1)
      (EQ (CAR obj)
           'SavedValue))
; The form (SavedValue) can be evaluated safely with no side
; effects
(EVAL obj)
(COND
  ((MEMB fn '(_New
              _Proto))
   evalObj)
  ((AND (Object? evalObj)
        (NEQ ($ Tofu)
              (Class evalObj)))
   (Class evalObj))
  (T (GetClassRec (OR (PromptRead (CONCAT (CHARACTER 7)
                                           (CHARACTER (CHARCODE CR))
                                           "Please type in name of class for
                                           "or type ] to evaluate expression
                                           to find class"))
                  (Class (EVAL obj))

  (COND
    ((NULL class)
     (RETURN)))

;; If the user has not provided a selector, let her pick one
(COND
  ((NULL sel)
   [SETQ sel
    (MENU
     (LET
      ((selectors! (_ class ListAttribute! 'Selectors NIL T)))
      (COND
        [(LEQ (LENGTH selectors!)
              10)
         (create MENU
                  TITLE _ "Which selector?"
                  ITEMS _ selectors!
                  MENCOLUMNS _ (ADD1 (IQUOTIENT (ITIMES (FONTHEIGHT MENUFONT)
                                                         (LENGTH selectors!))
                                                500])

        (T
         (LET*
          [(localSelectors (_ class ListAttribute! 'Selectors))
           [genericSelectors (LDIFFERENCE selectors! (_ class ListAttribute! 'Selectors)
                                                    (inheritedSelectors (LDIFFERENCE selectors! (UNION genericSelectors
                                                                 localSelectors)))
           (columns (ADD1 (IQUOTIENT (ITIMES (FONTHEIGHT MENUFONT)
                                                         (PLUS 2 (LENGTH localSelectors)))
                                                500])

          ;; ListAttribute! does the wrong thing in these cases, so swap the two sub-selector menus
          (SELECTQ (ClassName class)
                    ((Class Object Tofu)
                     (CL:PSETQ inheritedSelectors genericSelectors genericSelectors
                               inheritedSelectors))
                    NIL)
                    ; We have to go to some length to make sure that items with
                    ; sub-items are in the right hand column

          (create
           MENU
           TITLE _ "Which selector?"
           ITEMS _
           [if (OR (EQP 1 columns)
                   (AND (NULL genericSelectors)
                        (NULL inheritedSelectors)))
              then `[,@localSelectors ["*generics*" NIL NIL (SUBITEMS ,@(SORT
                                                                    genericSelectors
                                                                    )
                                                                    )
                        ("*inherited*" NIL NIL (SUBITEMS ,@(SORT inheritedSelectors)
                                                                    )
                        else (LET ((dummyItem (LIST "" NIL NIL)))
                              `[,@localSelectors ,@(from (ADD1 (REMAINDER (LENGTH localSelectors)
                                                                    columns))
                                                                    )
                                                                    to (SUB1 columns) collect dummyItem)
                              ["*generics*" NIL NIL (SUBITEMS ,@(SORT genericSelectors)
                                                                    )
                              ,@(from 1 to (SUB1 columns) collect dummyItem)
                              ("*inherited*" NIL NIL (SUBITEMS ,@(SORT inheritedSelectors)

```

```

      MENCOLUMNS _ columns] ; Save the user the effort of having to type in the selector just
                                ; chosen

      (COND
        (sel (BKSYSEBUF sel]
      (COND
        ((NULL sel)
          (RETURN)))
      ;; Print out information about the message
      [LET ((meth (FetchMethod class sel)))
        (COND
          (meth (PROMPTPRINT (@ ($! meth)
                                doc))
            (LET ((arglist (ARGLIST meth)))
              (TTYIN.PRINTARGS fn `',(CAR arglist)
                                Method ., (CDR arglist))
              `',(obj ,meth ., (CDDR actuals))
              0))
            (RETURN T])
          (RETURN NIL)))
      ((create CREATE Create) ;; Tell the user the field names of the record. --- This code is taken from Thomas G. Dietterich,
                                ;; tgd@oregon-stant.CSNet --- Thanks, wherever you are Tom.
      [PROG (fieldNames recName (soFar (TTYIN.READ?=ARGS)))
        (SETQ recName (CAR soFar))
        (COND
          (recName (SETQ fieldNames (RECORDFIELDNAMES recName))
            (COND
              (fieldNames (RETURN (REVERSE fieldNames))
            NIL])
      )

      (RPAQQ TTYIN?=FN GetMethodArgs)

      (* * Add a Loops item to the background menu)

      (ADDTTOVAR BackgroundMenuCommands
        ["Loops Icon" '(_Proto ($ LoopsIcon)
                                Blink)
          "Bring the Loops Icon to the top of the screen"
          (SUBITEMS ("Browse Class" '(_Proto ($ LoopsIcon)
                                                BrowseObject)
                    "Prompts for a class name and opens a browser on the class"
                    (SUBITEMS ("Browse Class" '(_Proto ($ LoopsIcon)
                                                BrowseObject)
                              "Prompts for a class name and opens a browser on the class")
                    ("Browse Supers" '(_Proto ($ LoopsIcon)
                                                SupersBrowse)
                    "Prompts for a class name and opens a browser on the class's
                    supers"))
          ("Browse File" '(_Proto ($ LoopsIcon)
                                FileBrowse)
          "Opens a Loops FileBrowser on a selected file"
          (SUBITEMS ("Browse File" '(_Proto ($ LoopsIcon)
                                                FileBrowse)
                    "Opens a Loops FileBrowser on a selected file")
          ("Edit FileComs" '(_Proto ($ LoopsIcon)
                                EditFileComs)
          "Edit the FILECOMS of a selected file")
          ("Cleanup File" '(_Proto ($ LoopsIcon)
                                CleanupFile)
          "Do a CLEANUP on a selected file"]])

      (RPAQQ BackgroundMenu NIL)

      (* * The PPDefault window)

      (RPAQ PPDefault \TopLevelTtyWindow)

      (DECLARE%: DOEVAL@COMPILE DONTCOPY

      (GLOBALVARS PPDefault)
      )

      (PUTPROPS LOOPSUSERINTERFACE COPYRIGHT ("Venue & Xerox Corporation" 1986 1987 1988 1990))

```

FUNCTION INDEX

GetMethodArgs1

VARIABLE INDEX

BackgroundMenu3 BackgroundMenuCommands ..3 PPDefault3 TTYIN?=FN3