

File created: 11-May-93 13:18:13 {DSK}<usr>local>lde>loops>users>rules>RULES-ROOT.;2

changes to: (VARS RULES-ROOTCOMS)

previous date: 11-May-93 12:42:46 {DSK}<usr>local>lde>loops>users>rules>RULES-ROOT.;1

Read Table: XCL

Package: INTERLISP

Format: XCCS

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```
(RPAQQ RULES-ROOTCOMS
  ((DECLARE\ : DONTCOPY (PROP MAKEFILE-ENVIRONMENT RULES-ROOT))
   (COMS
    (FNS |MoveMethod|) ; Override a few basic fns in Loops
    (METHODS |Class.CopyMethod| |Class.DefRSM| |Class.EditMethod| |Class.PPMethod|))
   (COMS
    (FNS |AddDefRSMtoClassBrowser|) ; Patch the class browser menus to add DefRSM
    (COMS
     (FILES (FROM VALUEOF LOOPSUSERSDIRECTORY) ; Load the Rules files
      LOOPSBACKWARDS LOOPSMIXIN)
     (FILES (FROM VALUEOF LOOPSUSERSRULESDIRECTORY)
      RULES RULESP RULESC RULESD RULESTTY))
    (P (|AddDefRSMtoClassBrowser|))
    (PROP MAKEFILE-ENVIRONMENT RULES-ROOT)))

(DECLARE\ : DONTCOPY)

;; Override a few basic fns in Loops

(DEFINEQ

(|MoveMethod|
 (LAMBDA (|oldClassName| |newClassName| |selector| |newSelector| |files|)
  ; Edited 17-Jun-88 17:21 by raf

;;; Move a method from oldClassName to newClassName, renaming function if appropriate

  (SETQ |oldClassName| (|GoodClassName| |oldClassName| NIL T))
  (OR |newClassName| (SETQ |newClassName| |oldClassName|))
  (SETQ |newClassName| (|GoodClassName| |newClassName| NIL T))
  (OR |newSelector| (SETQ |newSelector| |selector|))
  (PROG (|oldDef| |newLocalFn| |delFnFlg| |oldRuleSetName| |oldRuleSet| |newRuleSetName| |newRuleSet|
    |methodType| (|oldClass| (|GetClassRec| |oldClassName|))
    (|newClass| (|GetClassRec| |newClassName|))
    (|localFn| (|FindLocalMethod| (|GetClassRec| |oldClassName|)
      |selector|)))

  ;; Punt now for null moves

  (|if| (AND (EQ |oldClass| |newClass|)
    (EQ |selector| |newSelector|))
    |then| (RETURN NIL))

  (COND
   ((NULL |localFn|)
    (|printout| T |selector| " not found in " |oldClassName|)
    (RETURN NIL))
   (STRPOS |oldClassName| |localFn|)
   (OR (SETQ |oldDef| (GETDEF |localFn| 'METHOD-FNS))
    (ERROR "No definition found for " |localFn|)) ; Remember to delete fn def Dont use DELDEF since it bitches.
   (SETQ |delFnFlg| T)
   (COND
    ((|ValueFound| (SETQ |oldRuleSetName| (|GetMethod| |oldClass| |selector| 'RuleSet|)))
     ; Treat specially those that are implemented by RuleSets.
     (LET* ((|oldRuleSet| (|GetObjectRec| |oldRuleSetName|))
      (|newRuleSetName| (|MethName| (|ClassName| |newClass|)
        |selector|))
      (|newRuleSet| (|_ |oldRuleSet| |CopyRules| |newRuleSetName| |newClass|)))
      (SETQ |newLocalFn| (|DefRSM| |newClass| |selector| |newRuleSetName|)))
    (T
     ; Define the method
     (SETQ |newLocalFn| (EVAL (CL:MULTIPLE-VALUE-BIND (|cname| |sel| |args| |decls| |formsd|
      (PARSE-METHOD-BODY |oldDef|)
      (PACK-METHOD-BODY |newClassName| |newSelector| |args| |decls|
        |formsd| |doc| |quals| |method-type|))))))
     (T (|AddMethod| |newClass| |newSelector| |localFn|))
     (|for| |prop| |in| (DREMOVE 'RuleSet| (|_ |oldClass| |ListAttribute| 'Method| |selector|))
      |do| (|PutMethodOnly| |newClass| |newSelector| (|GetMethodOnly| |oldClass| |selector| |prop|)
        |prop|))
     (|DeleteMethod| |oldClass| |selector| |delFnFlg|)
     (RETURN (OR |newLocalFn| |localFn|))))))

)

(|\\BatchMethodDefs|)
```

```

(METH |Class| |CopyMethod| (|selector| |newClass| |newSelector|)
  "Copy method from self to newClass. newSelector defaults to selector"
  (|category| (|Class|)))

(METH |Class| |DefRSM| (|selector|)
  "Installs a RuleSet as a method in the class. If ruleSetName is NIL, then DefRSM creates a RuleSet,
  invokes the RuleSet editor, compiles the RuleSet, and installs it as a method in the class. Also
  initializes the workspace instance variable."
  (|category| (|Class|)))

(METH |Class| |EditMethod| (|selector| |commands|)
  "Called by Class.EditMethod. Finds the function associated with selector in class, and calls editor on
  it"
  (|category| (|Class|)))

(METH |Class| |PPMethod| (|selector|)
  "Prettyprint the function which implements selector in this class."
  (|category| (|Class|)))

(|Method| ((|Class| |CopyMethod|) |self| |selector| |newClass| |newSelector|)
  ; RBGMartin 13-Oct-87 17:10
  "Copy method from self to newClass. newSelector defaults to selector"
  (OR |newSelector| (SETQ |newSelector| |selector|))
  (LET (|def| |newFn| |oldRuleSetName| (|myMethName| (|FindLocalMethod| (|GetClassRec| |self|)
    |selector|)))
    (COND
      ((NULL |myMethName|)
        (COND
          ((SETQ |myMethName| (|FetchMethod| |self| |selector|))
            (HELPCHECK |selector| " is not local for " |self| "
              To copy anyway, type OK"))
          (T (ERROR |selector| (CONCAT "is not a selector for " |self|))))))
      (OR (|type?| |class| |newClass|)
        (SETQ |newClass| (OR (|GetClassRec| |newClass|)
          (AND (HELPCHECK |newClass| " is not a class. Type OK to use oldClass: ")
            |self|))))
      (COND
        ((|ValueFound| (SETQ |oldRuleSetName| (|GetMethod| |self| |selector| 'RuleSet|)))
          ; Treat specially those that are implemented by RuleSets.
          (LET* ((|oldRuleSet| (|GetObjectRec| |oldRuleSetName|))
            (|newRuleSetName| (|MethName| (|ClassName| |newClass|)
              |selector|))
            (|newRuleSet| (|_| |oldRuleSet| |CopyRules| |newRuleSetName| |newClass|))
            (SETQ |newFn| (|DefRSM| |newClass| |selector| |newRuleSetName|)))
            (T
              ; Define the method
              (OR (SETQ |def| (GETDEF |myMethName| 'METHOD-FNS))
                (ERROR |myMethName| " is not a defined function"))
              (SETQ |newFn| (EVAL (CL:MULTIPLE-VALUE-BIND (|cname| |sel| |args| |decls| |forms| |doc| |quals|
                |type|)
                (PARSE-METHOD-BODY |def|)
                (PACK-METHOD-BODY (|ClassName| |newClass|)
                  |newSelector| |args| |decls| |forms| |doc| |quals| |type|))))))
              (|for| |prop| |in| (DREMOVE 'RuleSet| (|_| |self| |ListAttribute| 'Method| |selector|))
                ; Copy all the properties
                (|do|
                  (|PutMethod| |newClass| |newSelector| (|GetMethod| |self| |selector| |prop|)
                    |prop|))
                  |newFn|)))

(|Method| ((|Class| |DefRSM|) |self| |selector|)
  ; dgb: 9-NOV-83 11:20
  "Installs a RuleSet as a method in the class. If ruleSetName is NIL, then DefRSM creates a RuleSet, invokes
  the RuleSet editor, compiles the RuleSet, and installs it as a method in the class. Also initializes the
  workspace instance variable."
  (|DefRSM| |self| |selector|))

(|Method| ((|Class| |EditMethod|) |self| |selector| |commands|)
  ; RBGMartin 17-Feb-87 16:34
  "Called by Class.EditMethod. Finds the function associated with selector in class, and calls editor on it"
  (LET* ((|selector| (OR |selector| (|_| |self| |PickSelector| (CONCAT "EditMethod: " (|ClassName| |self|)))))
    (|method| (AND |selector| (|FindLocalMethod| |self| |selector|)))
    (|if| (NULL |selector|)
      |then| NIL
      |elseif| (NULL |method|)
      |then| (LET ((|allSelectors| (|_| |self| |ListAttribute| 'Selectors|))
        (|if| (MEMB |selector| |allSelectors|)
          |then|
            ; The method is an inherited one
            (|if| (EQ 'Y (ASKUSER NIL NIL (CONCAT |selector| " is not a local method of "
              |self| ". Should I make it local for
              editing? ")))
              |then| (SETQ |method| (|_| |self| |MakeLocalMethod| |selector|)))
            |else| (LET* ((|containingForm| (|if| (AND (BOUNDP '||SendForm|)
              (EQ ||Obj| |self|)
              (EQ ||Selector| 'EditMethod|)
              |then| ||SendForm|))
                (|correctedSelector| (|_||LoopsFixSpell|
                  |selector| |allSelectors| (CONS '_ |containingForm|)
                  (|if| (EQ 'QUOTE (CAR (CADDR |containingForm|)))
                    |then| (CDR (CADDR |containingForm|))))))

```

```

                (|if| |correctedSelector|
                 |then| (SETQ |selector| |correctedSelector|)
                        (SETQ |method| (OR (|FindLocalMethod| |self| |correctedSelector|)
                                           (|self| |MakeLocalMethod| |correctedSelector|
                                           ))))))))
(LET ((|ruleSet| (AND |method| (|GetMethod| |self| |selector| |RuleSet|))))
(|if| (NULL |method|)
  |then| NIL
  |elseif| (|ValueFound| |ruleSet|)
  |then|
    (|_ (|GetObjectRec| |ruleSet|)
      |EditRules|)
    ; Here if the method is implemented by a RuleSet.
  |elseif| (NULL (|CheckMethodForm| |self| |selector| |method|))
  |then| (PROMPTPRINT |method| " is not a known function.")
  |else| (|if| (GETDEF |method| 'METHOD-FNS NIL ' (NOERROR NOCOPY NODWIM))
    |then| (EDITDEF |method| 'METHOD-FNS NIL |commands|)
    |else| (PROMPTPRINT "Can't find source for " |method| T)
    NIL))))

(|Method| ((|Class| |PPMethod|) |self| |selector|)
; smL 9-Apr-87 19:18

```

;;; Prettyprint the function which implements selector in this class.

;;;

```

(LET ((|selector| (OR |selector| (|_ |self| |PickSelector| (CONCAT "PPMethod: " (|ClassName| |self|)))))
(COND
  (|selector| (LET ((|fn| (|_ |self| |FetchMethod| |selector|))
    (|outFile| (|PPDefault| NIL)))
    (|if| |fn|
      |then| (RESETFORM (OUTPUT |outFile|)
        (WITH.PP.OUTPUT |outFile| (TERPRI |outFile|)
          (PRINTDEF (GETDEF |fn| 'METHOD-FNS))))
      |else| (PRINTOUT |outFile| "No method for selector " |selector| " in " |self| T))))))
))

(|\\UnbatchMethodDefs|)

```

;; Patch the class browser menus to add DefRSM

(DEFINEQ

(|AddDefRSMtoClassBrowser|

; Edited 16-Dec-87 12:23 by jrb:

```

  (LAMBDA NIL
    (PROG ((MIDDLEITEMS (|GetClassValue| ($ |ClassBrowser|)
      ' |MiddleButtonItem|)))
      (|PutClassValue| ($ |ClassBrowser|)
        ' |MiddleButtonItem|
        (|for| N |in| MIDDLEITEMS |collect| (COND
          ((EQUAL (CAR N)
            "Add (AddMethod)")
            (LET ((SUBITEMFORM (CADR N)))
              (LIST (CAR N)
                (LIST (CAR SUBITEMFORM)
                  (LSUBST ' ("AddMethod" |AddNewMethod|
                    "Add a new method to the
                    class")
                    ("DefRSM" |DefRSM| "Add a new
                    ruleset method to the
                    class")
                    ' ("AddMethod" |AddNewMethod| "Add a
                    new method to the class")
                    (CADADR N))
                  (CADDR SUBITEMFORM))
                (CADDR N))))
            (T N))))
        (|ClearAllCaches|))))
)

```

;; Load the Rules files

```

(FILESLoad (FROM VALUEOF LOOPSUSERSDIRECTORY)
  LOOPSBACKWARDS LOOPSMIXIN)

```

```

(FILESLoad (FROM VALUEOF LOOPSUSERSRULESDIRECTORY)
  RULES RULESP RULESC RULESD RULESTTY)

```

(|AddDefRSMtoClassBrowser|)

(PUTPROPS RULES-ROOT COPYRIGHT ("Venue" 1993))

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