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Read Table: XCL

Package: COMPILER

Format: XCCS

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(IL:RPAQQ IL:XCLC-DATABASECOMS

(

;;; The XCL Compiler's database of information about the properties of functions and other constructs.

(IL:DEFINE-TYPES COMPILER-DATA)

;; Side Effects (The first keyword is the effects of the function itself and the second is those effects that can affect the running of the
;; function.)

(IL:FUNCTIONS DECLARE-SIDE-EFFECTS SIDE-EFFECTS)

(IL:SETFS SIDE-EFFECTS)

(IL:PROP IL:PROPTYPE SIDE-EFFECTS-DATA)

(COMPILER-DATA ("Side-effects data for CLtL, Chapter 4: Type Specifiers" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 4: Type Specifiers" :NONE :NONE)
("Side-effects data for CLtL, Chapter 6: Predicates" :NONE :NONE)
("Side-effects data for CLtL, Chapter 7: Control Structure" (:CONS
:ANY)
("Side-effects data for CLtL, Chapter 7: Control Structure" :ANY :NONE)
("Side-effects data for CLtL, Chapter 7: Control Structure" :NONE :ANY)
("Side-effects data for CLtL, Chapter 7: Control Structure" :ANY :ANY)
("Side-effects data for CLtL, Chapter 8: Macros" :ANY :ANY)
("Side-effects data for CLtL, Chapter 8: Macros" :NONE :ANY)
("Side-effects data for CLtL, Chapter 9: Declarations" :ANY :ANY)
("Side-effects data for CLtL, Chapter 10: Symbols" :NONE :ANY)
("Side-effects data for CLtL, Chapter 10: Symbols" :ANY :ANY)
("Side-effects data for CLtL, Chapter 10: Symbols" (:CONS CL:*GENSYM-PREFIX*
CL:*GENSYM-COUNTER*))
(CL:*GENSYM-PREFIX* CL:*GENSYM-COUNTER*))
("Side-effects data for CLtL, Chapter 10: Symbols" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 10: Symbols" (:CONS
:ANY)
("Side-effects data for CLtL, Chapter 10: Symbols" :NONE :NONE)
("Side-effects data for CLtL, Chapter 11: Packages" :NONE :ANY)
("Side-effects data for CLtL, Chapter 11: Packages" :ANY :ANY)
("Side-effects data for CLtL, Chapter 12: Numbers" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 12: Numbers" :ANY :ANY)
("Side-effects data for CLtL, Chapter 12: Numbers" :NONE :NONE)
("Side-effects data for CLtL, Chapter 13: Characters" :NONE :NONE)
("Side-effects data for CLtL, Chapter 14: Sequences" :ANY :ANY)
("Side-effects data for CLtL, Chapter 14: Sequences" :NONE :ANY)
("Side-effects data for CLtL, Chapter 14: Sequences" (:CONS
:ANY)
("Side-effects data for CLtL, Chapter 15: Lists" :NONE :NONE)
("Side-effects data for CLtL, Chapter 15: Lists" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 15: Lists" :ANY :ANY)
("Side-effects data for CLtL, Chapter 15: Lists" :ANY :NONE)
("Side-effects data for CLtL, Chapter 16: Hash Tables" :ANY :NONE)
("Side-effects data for CLtL, Chapter 16: Hash Tables" :ANY :ANY)
("Side-effects data for CLtL, Chapter 16: Hash Tables" :NONE :ANY)
("Side-effects data for CLtL, Chapter 16: Hash Tables" :NONE :NONE)
("Side-effects data for CLtL, Chapter 16: Hash Tables" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 17: Arrays" :NONE :NONE)
("Side-effects data for CLtL, Chapter 17: Arrays" :NONE :ANY)
("Side-effects data for CLtL, Chapter 17: Arrays" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 17: Arrays" :ANY :ANY)
("Side-effects data for CLtL, Chapter 18: Strings" :ANY :ANY)
("Side-effects data for CLtL, Chapter 18: Strings" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 18: Strings" (:CONS
:ANY)
("Side-effects data for CLtL, Chapter 18: Strings" :NONE :NONE)
("Side-effects data for CLtL, Chapter 18: Strings" :NONE :ANY)
("Side-effects data for CLtL, Chapter 20: The Evaluator" :NONE :ANY)
("Side-effects data for CLtL, Chapter 20: The Evaluator" :ANY :ANY)
("Side-effects data for CLtL, Chapter 21: Streams" (:CONS
:ANY)
("Side-effects data for CLtL, Chapter 21: Streams" (:CONS
:NONE)
("Side-effects data for CLtL, Chapter 21: Streams" :ANY :NONE)
("Side-effects data for CLtL, Chapter 21: Streams" :NONE :NONE)

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("Side-effects data for CLtL, Chapter 21: Streams" :ANY :ANY)
("Side-effects data for CLtL, Chapter 22: Input/Output" :NONE :NONE)
("Side-effects data for CLtL, Chapter 22: Input/Output" :ANY :ANY)
("Side-effects data for CLtL, Chapter 22: Input/Output" :NONE :ANY)
("Side-effects data for CLtL, Chapter 22: Input/Output" (:CONS)
:ANY)
("Side-effects data for CLtL, Chapter 23: File System Interface" :NONE :ANY)
("Side-effects data for CLtL, Chapter 23: File System Interface" (:CONS)
:ANY)
("Side-effects data for CLtL, Chapter 23: File System Interface" :ANY :ANY)
("Side-effects data for CLtL, Chapter 23: File System Interface" :NONE :NONE)
("Side-effects data for CLtL, Chapter 24: Errors" :ANY :ANY)
("Side-effects data for CLtL, Chapter 25: Miscellaneous Features" :NONE :ANY)
("Side-effects data for CLtL, Chapter 25: Miscellaneous Features" :ANY :ANY)
("Side-effects data for CLtL, Chapter 25: Miscellaneous Features" :ANY :NONE)
("Side-effects data for CLtL, Chapter 25: Miscellaneous Features" :NONE :NONE)
("Side-effects data for IRM, Chapter 2: Litatoms" :ANY :NONE)
("Side-effects data for IRM, Chapter 2: Litatoms" :NONE :ANY)
("Side-effects data for IRM, Chapter 2: Litatoms" :NONE :NONE)
("Side-effects data for IRM, Chapter 2: Litatoms" :ANY :ANY)
("Side-effects data for IRM, Chapter 2: Litatoms" (:CONS)
:ANY)
("Side-effects data for IRM, Chapter 3: Lists" :NONE :NONE)
("Side-effects data for IRM, Chapter 3: Lists" :ANY :ANY)
("Side-effects data for IRM, Chapter 3: Lists" :ANY :NONE)
("Side-effects data for IRM, Chapter 3: Lists" (:CONS)
:NONE)
("Side-effects data for IRM, Chapter 3: Lists" (:CONS)
:ANY)
("Side-effects data for IRM, Chapter 3: Lists" :NONE :ANY)
("Side-effects data for IRM, Chapter 4: Strings" (:CONS)
:ANY)
("Side-effects data for IRM, Chapter 4: Strings" :NONE :ANY)
("Side-effects data for IRM, Chapter 4: Strings" :NONE :NONE)
("Side-effects data for IRM, Chapter 4: Strings" :ANY :ANY)
("Side-effects data for IRM, Chapter 5: Arrays" :ANY :NONE)
("Side-effects data for IRM, Chapter 5: Arrays" :NONE :ANY)
("Side-effects data for IRM, Chapter 5: Arrays" :NONE :NONE)
("Side-effects data for IRM, Chapter 5: Arrays" (:CONS)
:ANY)
("Side-effects data for IRM, Chapter 6: Hash Arrays" :ANY :ANY)
("Side-effects data for IRM, Chapter 6: Hash Arrays" :NONE :NONE)
("Side-effects data for IRM, Chapter 6: Hash Arrays" (:CONS)
:NONE)
("Side-effects data for IRM, Chapter 6: Hash Arrays" (:CONS)
:ANY)
("Side-effects data for IRM, Chapter 6: Hash Arrays" :NONE :ANY)
("Side-effects data for IRM, Chapter 6: Hash Arrays" :ANY :NONE)
("Side-effects data for IRM, Chapter 7: Numbers and Arithmetic Functions" :ANY :ANY)
("Side-effects data for IRM, Chapter 7: Numbers and Arithmetic Functions" :NONE :NONE)
("Side-effects data for IRM, Chapter 7: Numbers and Arithmetic Functions" :ANY :NONE)
("Side-effects data for IRM, Chapter 8: Record Package" :NONE :ANY)
("Side-effects data for IRM, Chapter 8: Record Package" :ANY :ANY)
("Side-effects data for IRM, Chapter 9: Conditionals and Iterative Statements" :NONE :NONE)
("Side-effects data for IRM, Chapter 9: Conditionals and Iterative Statements" :NONE :ANY)
("Side-effects data for IRM, Chapter 9: Conditionals and Iterative Statements" :ANY :ANY)
("Side-effects data for IRM, Chapter 10: Function Definition, Manipulation, and Evaluation"
:ANY :NONE)
("Side-effects data for IRM, Chapter 10: Function Definition, Manipulation, and Evaluation"
:NONE :ANY)
("Side-effects data for IRM, Chapter 10: Function Definition, Manipulation, and Evaluation"
:ANY :ANY)
("Side-effects data for IRM, Chapter 10: Function Definition, Manipulation, and Evaluation"
:NONE :NONE)
("Side-effects data for IRM, Chapter 11: Variable Bindings and the Interlisp Stack" :NONE :ANY
)
("Side-effects data for IRM, Chapter 11: Variable Bindings and the Interlisp Stack" :ANY :NONE
)
("Side-effects data for IRM, Chapter 11: Variable Bindings and the Interlisp Stack" :ANY :ANY)
("Side-effects data for IRM, Chapter 11: Variable Bindings and the Interlisp Stack" :NONE
:NONE)
("Side-effects data for IRM, Chapter 12: Miscellaneous" :NONE :NONE)
("Side-effects data for IRM, Chapter 12: Miscellaneous" :ANY :ANY)
("Side-effects data for IRM, Chapter 12: Miscellaneous" :NONE :ANY)
("Side-effects data for Pointer reads" :NONE :NONE)
("Side-effects data for Internal functions in CMLARITH" :NONE :NONE))

;; Arrange for the correct compiler to be used.
(IL:PROP IL:FILETYPE IL:XCLC-DATABASE)

;; Set up the correct package environment.
(IL:PROP IL:MAKEFILE-ENVIRONMENT IL:XCLC-DATABASE)))

```

;;; The XCL Compiler's database of information about the properties of functions and other constructs.

```
(DEF-DEFINE-TYPE COMPILER-DATA "XCL Compiler information")
```

:: Side Effects (The first keyword is the effects of the function itself and the second is those effects that can affect the running of the function.)

```
(DEFDEFINER (DECLARE-SIDE-EFFECTS (:NAME (LAMBDA (WHOLE)
                                           (LIST (FORMAT NIL "Side-effects data for ~A" (SECOND WHOLE
                                                                                   )
                                                                                   )
                                                  (THIRD WHOLE)
                                                  (FOURTH WHOLE))))))

  COMPILER-DATA (TITLE EFFECTS AFFECTED &REST FUNCTIONS)
  (COND
    ((AND (OR (EQ EFFECTS :NONE)
              (EQ EFFECTS :ANY)
              (LISTP EFFECTS))
          (OR (EQ AFFECTED :NONE)
              (EQ AFFECTED :ANY)
              (LISTP AFFECTED))))
    `(LET ((DATA ', (CONS EFFECTS AFFECTED)))
      ,@(MAPCAR #'(LAMBDA (F)
                        `(SETF (SIDE-EFFECTS ',F)
                              DATA))
                FUNCTIONS)))
    (T (CERROR "Ignore the declaration" "Malformed side-effects descriptor in DECLARE-SIDE-EFFECTS: ~S"
               (CONS EFFECTS AFFECTED))
      NIL)))

(DEFUN SIDE-EFFECTS (NAME)
  (GET NAME 'SIDE-EFFECTS-DATA))

(DEFSETF SIDE-EFFECTS (NAME) (DATA)
  `(IL:PUTPROP ,NAME 'SIDE-EFFECTS-DATA ,DATA))

(IL:PUTPROPS SIDE-EFFECTS-DATA IL:PROPTYPE IGNORE)
```