

File created: 28-Apr-88 17:29:39 {ERIS}<CUTTING>RPC>RPCSTRUCT.;4

changes to: (IL:VARS IL:RPCSTRUCTCOMS)
(IL:STRUCTURES RPC-STREAM)
(FILE-ENVIRONMENTS IL:RPCSTRUCT)

previous date: 15-Oct-87 18:49:03 {ERINYES}<LISPUSERS>MEDLEY>RPCSTRUCT.LSP;1

Read Table: XCL

Package: RPC2

Format: XCCS

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```
(IL:RPAQQ IL:RPCSTRUCTCOMS ((IL:PROPS (IL:RPCSTRUCT IL:MAKEFILE-ENVIRONMENT IL:FILETYPE))
                               (IL:STRUCTURES RPC-PROGRAM RPC-PROCEDURE RPC-STREAM AUTHENTICATION)))
```

```
(IL:PUTPROPS IL:RPCSTRUCT IL:MAKEFILE-ENVIRONMENT (:READTABLE "XCL" :PACKAGE "RPC2"))
```

```
(IL:PUTPROPS IL:RPCSTRUCT IL:FILETYPE :COMPILE-FILE)
```

(DEFSTRUCT RPC-PROGRAM

```
"
Structure describing a Sun RPC Protocol Remote Program.
"
(NUMBER 0 :TYPE INTEGER)           ; RPC Program Number
(VERSION 0 :TYPE INTEGER)          ; RPC Version Number
NAME                               ; String or Symbol. This name is used only by this program and
                                   ; has no significance to the remote program. The name is
                                   ; assumed to uniquely specify an RPC structure.
                                   ; A symbol. Either RPC::UDP or RPC::TCP.
                                   ; List of (<constant> <def>) pairs.
                                   ; List of (<typename> <typedef>) pairs
                                   ; List of names of RPC names whose types and constants are
                                   ; inherited by this RPC.
                                   ; List of RPC-PROCEDURE structures defining the procedures
                                   ; for this remote program.

PROTOCOL
CONSTANTS
TYPES
INHERITS

PROCEDURES

)
```

(DEFSTRUCT RPC-PROCEDURE

```
"Structure defining a single procedure of a SUN RPC Protocol remote program.
"
NAME                               ; The procedure name. A string or symbol.
(PROCNUM 0 :TYPE INTEGER)          ; The procedure number. An integer.
ARGTYPES                           ; List of argument types. May be typenames or typedefs. NIL for
                                   ; no arguments.
RESULTTYPES                         ; Same as ARGTYPES except for returned values.

)
```

(DEFSTRUCT RPC-STREAM

```
"Holds info and functions for encoding, decoding and executing remote procedure calls"
PROTOCOL                           ; UDP, TCP, or STRING
IPSOCKET                           ; Local IP Socket
INSTREAM                           ; Incoming (Reply) Stream or Packet
INBYTEPTR                           ; Byte Pointer to current position in incoming data. For UDP it is
                                   ; the byte pointer in the UDP packet. For TCP it is decremented,
                                   ; saying how many bytes left in this RM record before another
                                   ; RM header must be read.
OUTSTREAM                           ; UDP outgoing packet, or outgoing stream used by TCP and
                                   ; STRING.
OUTBYTEPTR                           ; Byte Pointer to current position in outgoing string used to build
                                   ; RM record for TCP. See page 10 of "Remote Procedure Call
                                   ; Protocol Specification" for details of the RM 'Record Marking
                                   ; Standard'.
OUTSTRING                           ; Used by TCP to encode as string before sending
GETBYTE                             ; Function to read byte of incoming data
GETBYTES                           ; Function to do bulk read of incoming data
GETCELL                             ; Function to get 32 bit two's complement integer of incoming
                                   ; data. Would be better to have 32 bit unsigned as the primitive
GETOFFSET                           ; Get current offset into incoming data.
PUTBYTE                             ; Function to write byte of outgoing data
PUTBYTES                           ; Function to do bulk write of outgoing data.
PUTCELL                             ; Function to write 32 bit two's complement integer of outgoing
                                   ; data.
PUTOFFSET                           ; Set current position in incoming data.
PRIVATE                             ; Can be used by user as desired
OS-DESTADDR                         ; Address of the destination. Only used by os-networking.

)
```

```
{MEDLEY}<lispusers>RPCSTRUCT.;1
```

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```
(DEFSTRUCT AUTHENTICATION
```

```
  "Sun RPC Version 2 Authentication Record"  
  TYPE
```

```
  STRING
```

```
  ; 0 = NULL  
  ; 1 = Unix  
  ; 2 = Short
```

```
  ;  
  ; Encoding of any fields of that type authentication. String is a  
  ; Common Lisp string rather than an XDR-STRING.
```

```
)
```

```
(IL:PUTPROPS IL:RPCSTRUCT IL:COPYRIGHT ("Stanford University and Xerox Corporation" 1987 1988))
```

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