

File created: 14-Oct-2025 10:03:54 {WMEDLEY}<lispusers>talk>TALK-NS.;4

edit by: rmk

changes to: (VARS TALK-NSCOMS)

previous date: 14-Oct-2025 10:03:10 {WMEDLEY}<lispusers>talk>TALK-NS.;3

Read Table: INTERLISP

Package: INTERLISP

Format: MCCS

```
(RPAQQ TALK-NSCOMS
  ((* TALK NS (GAP)
    Interface)
    (LOCALVARS . T)
    (FNS CH.USER.WORKSTATION TALK.NS.SERVER)
    (FNS TALK.NS.USERNAME TALK.NS.CONNECT TALK.NS.EVENT TALK.NS.CREDENTIALS)
    (* GAP Server)
    (FNS GAP.SERVER.DEFINE.GAP.SERVER)
    (INITVARS GAP.SERVICETYPES [TALK.GAP.HANDLE '(0 0]
      (TALK.GAP.UNKNOWN "(Viewpoint or XDE User)"))
    (VARS TALK.GAP.PARAMETERS TALK.GAP.TRANSPORT)
    (GLOBALVARS GAP.SERVICETYPES TALK.GAP.HANDLE TALK.GAP.UNKNOWN TALK.GAP.PARAMETERS
      TALK.GAP.TRANSPORT)
    (DECLARE%: DONTCOPY (RECORDS GAP.SERVICETYPE))
    (* etc)
    (FILES TALK COURIERSERVE)
    (APPENDVARS (TALK.PROTOCOLTYPES (NS COERCE-TO-NSADDRESS TALK.NS.USERNAME TALK.NS.CONNECT
      TALK.NS.EVENT COURIER.START.SERVER))))
    [DECLARE%: DOCOPY (COMS (DECLARE%: EVAL@LOADWHEN (NOT (HASDEF 'GAP 'COURIERPROGRAM))
      (FILES TALK-NSGAP]
    (* DECLARE%: DONTCOPY DONTEVAL@LOAD EVAL@COMPILE (FILES ETHERRECORDS SPPDECLS)
    (* Also need to load EXPORTS.ALL))
    (* COURIER.RESET.SOCKET used to be defined by TALK, now defined in COURIERSERVE module)
    (APPENDVARS (BEFORELOGOUTFORMS (COURIER.RESET.SOCKET)))
    (P (DEFINE.GAP.SERVER)
      (COURIER.START.SERVER))))

  (* * TALK NS (GAP) Interface)

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(LOCALVARS . T)
)

(DEFINEQ
  CH.USER.WORKSTATION
  [LAMBDA (USER WORKSTATION)
    (if WORKSTATION
      then (LET (NSADDRESS)
        (if (SETQ NSADDRESS (COERCE-TO-NSADDRESS WORKSTATION (ZERO)))
          then (CH.DELETE.PROPERTY USER 'ADDRESS.LIST)
            (CH.ADD.ITEM.PROPERTY USER 'ADDRESS.LIST (SETQ NSADDRESS (CONS NSADDRESS))
              '(SEQUENCE NSADDRESS))
            (CONS USER NSADDRESS)
          else (ERROR WORKSTATION "Address for host not found!")))
      else (CH.DELETE.PROPERTY USER 'ADDRESS.LIST])
    ; Edited 3-Jun-88 09:18 by cdl

  TALK.NS.SERVER
  [LAMBDA (INPUTSTREAM PROGRAM PROCEDURE PARAMETERS TRANSPORT WAITTIME CREDENTIALS
    VERIFIER)
    ; Edited 15-Jun-88 11:10 by cdl
    (* DECLARATIONS%: (ASSOCRECORD ALST
      (service)))

    (LET ((USER (TALK.NS.CREDENTIALS CREDENTIALS))
      (ADDRESS (create NSADDRESS
        NSSOCKET ← (ZERO) using (SPP.DESTADDRESS INPUTSTREAM)))
      (SERVICETYPE)
      (with GAP.SERVICETYPE [for SERVICETYPE in GAP.SERVICETYPES thereis (for NUMBER
        in (CAR (with ALST
          TRANSPORT
          service))
        thereis (with
          GAP.SERVICETYPE
          SERVICETYPE
          (EQP NUMBER
```

I

)

```

'([service (,(with GAP.SERVICETYPE
[for TYPE in

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GAP.SERVICETYPES
thereis (with
  GAP.SERVICETYPE
  TYPE
  (with
    TALK.SERVICETYPE
    SERVICETYPE
    (EQ
      GAP.SERVICENAME
      TALK.SERVICENAME
    )
    GAP.UNSPECIFIED]
  ,@TALK.GAP.TRANSPORT)
SPP.USER.TIMEOUT CREDENTIALS VERIFIER
'RETURNERRORS]
(ERROR (SELECTQ (CADR RESULT)
  (noAnswerOrBusy
    (* User hung up or didn't answer, don't try another service)
    (RETURN))
  (serviceNotFound

```

(* Old Lisp TTY service returns this when it really means noAnswerOrBusy for compatibility with Tajo/Viewpoint.)

```

(if (with TALK.SERVICETYPE
  SERVICETYPE (EQ
    TALK.SERVICENAME
    'TTY))
  then

```

(* Don't try services following TTY service for NS we don't know if remote service wasn't there or remote user refused connection so we may annoy the remote user, of course we may miss a possible connection)

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(NIL))
(RETURN)))
RESULT)))
then [RETURN (CONS SERVICETYPE (CONS STREAM (SPPOUTPUTSTREAM STREAM)
else (CLOSEF? STREAM)
  (RETURN 'ANSWER))
else (RETURN 'CONNECT)]

```

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(TALK.NS.EVENT
[LAMBDA (INPUTSTREAM OUTPUTSTREAM)
  (if (AND (OPENP INPUTSTREAM)
    (OPENP OUTPUTSTREAM)
    (NOT (READP INPUTSTREAM)))
    then (AWAIT.EVENT (with SPPCON (with SPPSTREAM INPUTSTREAM SPP.CONNECTION)
      SPPINPUTEVENT)))
  (if (OPENP INPUTSTREAM)
    then (SELECTQ (EOFP INPUTSTREAM)
      (ATTENTION (SPP.CLEARATTENTION INPUTSTREAM)
        (BIN INPUTSTREAM))
      (EOM (SPP.CLEAREOM INPUTSTREAM))
      (T (CLOSEF INPUTSTREAM))
      NIL))
    (* cdl "10-Jun-87 07:55")

```

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(TALK.NS.CREDENTIALS
[LAMBDA (CREDENTIALS)
  (if (AND CREDENTIALS (SETQ CREDENTIALS (CADR CREDENTIALS)))
    then (SUBATOM (COURIER.READ.REP CREDENTIALS 'CLEARINGHOUSE 'NAME)
      1 -2])
    (* cdl " 6-May-87 15:58")

```

)

(* * GAP Server)

(DEFINEQ**(GAP.SERVER****[LAMBDA (STREAM PROGRAM PROCEDURE PARAMETERS TRANSPORT WAITTIME CREDENTIALS VERIFIER)**

; Edited 9-Jun-88 12:06 by cdl

(* DECLARATIONS%: (ASSOCRECORD ALST
(service)))**(LET (SERVICETYPE)****(if [OR [for NUMBER in (CAR (with ALST TRANSPORT service)) thereis (SETQ SERVICETYPE****(for SERVICETYPE in****GAP.SERVICETYPES****thereis (with GAP.SERVICETYPE****SERVICETYPE****(AND (EQP NUMBER****GAP.UNSPECIFIED****)****GAP.SERVERFN]****(AND (SETQ SERVICETYPE (ASSOC T GAP.SERVICETYPES))****(with GAP.SERVICETYPE SERVICETYPE**

(* There was a server in place before TALK was loaded)

(FGETD GAP.SERVERFN]**then (APPLY* (with GAP.SERVICETYPE SERVICETYPE GAP.SERVERFN)****STREAM PROGRAM PROCEDURE PARAMETERS TRANSPORT WAITTIME CREDENTIALS
VERIFIER)****else '(ABORT serviceNotFound])****(DEFINE.GAP.SERVER****[LAMBDA NIL**

; Edited 27-Jul-88 09:08 by cdl

(* DECLARATIONS%: (ASSOCRECORD PROCEDURES
(Create)) (PROPRECORD PROCEDURE
(IMPLEMENTEDBY)))**(if (HASDEF 'GAP 'COURIERPROGRAM)****then (PROG [SERVERFN PROCEDURE (COURIERDEF (GETDEF 'GAP 'COURIERPROGRAM]****[with COURIERPGM COURIERDEF (SETQ PROCEDURE (with PROCEDURES PROCEDURES****Create))****[if (SETQ SERVERFN (with PROCEDURE PROCEDURE IMPLEMENTEDBY))****then (if (EQ SERVERFN 'GAP.SERVER)****then (RETURN))**

(* Make the existing GAP server the default)

(if GAP.SERVICETYPES**then (PUTASSOC T '(DEFAULT ,SERVERFN)****GAP.SERVICETYPES)****else (push GAP.SERVICETYPES '(T DEFAULT ,SERVERFN]****(with PROCEDURE PROCEDURE (SETQ IMPLEMENTEDBY 'GAP.SERVER]****(PUTDEF 'GAP 'COURIERPROGRAM COURIERDEF)****(UNMARKASCHANGED 'GAP 'COURIERPROGRAM))****else (ERROR "Courier program GAP not defined!")])****)****(RPAQ? GAP.SERVICETYPES NIL)****(RPAQ? TALK.GAP.HANDLE '((0 0)))****(RPAQ? TALK.GAP.UNKNOWN "(Viewpoint or XDE User)")****(RPAQQ TALK.GAP.PARAMETERS (ttyHost (seven even two 100 (none 0 0))))****(RPAQQ TALK.GAP.TRANSPORT ((teletype)))****(DECLARE%: DOEVAL@COMPILE DONTCOPY****(GLOBALVARS GAP.SERVICETYPES TALK.GAP.HANDLE TALK.GAP.UNKNOWN TALK.GAP.PARAMETERS TALK.GAP.TRANSPORT)****)****(DECLARE%: DONTCOPY****(DECLARE%: EVAL@COMPILE****(RECORD GAP.SERVICETYPE (GAP.UNSPECIFIED GAP.SERVICENAME GAP.SERVERFN))****)**

)

(* * etc)

(FILESLOAD TALK COURIERSERVE)

(APPENDTOVAR TALK.PROTOCOLTYPES (NS COERCE-TO-NSADDRESS TALK.NS.USERNAME TALK.NS.CONNECT TALK.NS.EVENT
COURIER.START.SERVER))

(DECLARE%: DOCOPY

(DECLARE%: EVAL@LOADWHEN

(NOT (HASDEF 'GAP 'COURIERPROGRAM))

(FILESLOAD TALK-NSGAP)

)

(* * DECLARE%: DONTCOPY DONTVAL@LOAD EVAL@COMPILE
(FILES ETHERRECORDS SPPDECLS) (* Also need to load EXPORTS.ALL))

(* * COURIER.RESET.SOCKET used to be defined by TALK, now defined in COURIERSERVE module)

(APPENDTOVAR BEFORELOGOUTFORMS (COURIER.RESET.SOCKET))

(DEFINE.GAP.SERVER)

(COURIER.START.SERVER)

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RECORD INDEX

GAP.SERVICETYPE4
