

File created: 28-Sep-91 12:55:09 {PELE:MV:ENVOS}<LISPUSERS>MEDLEY>PLAY.;2

changes to: (VARS PLAYCOMS DEMO.MELODY DEMO.TUNE)
(RECORDS MELODY PASSAGE BEEP)
(FNS PLAY.TRANSCRIBE)

previous date: 11-Jul-86 13:55:55 {PELE:MV:ENVOS}<LISPUSERS>MEDLEY>PLAY.;1

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

::
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```
(RPAQQ PLAYCOMS
  (
    (COMS
      (CONSTANTS (PLAY.ROOM 10000)
        (PLAY.TOY 32)
        (PLAY.FREQA 1760)
        (PLAY.SILENT NIL))
      (INITVARS (PLAY.OCTAVE NIL)
        (PLAY.DURATION NIL)
        (PLAY.BREAK NIL)
        (PLAY.SHARP NIL)
        (PLAY.FLAT NIL)
        (PLAY.TWELFTHS NIL)
        (PLAY.POWERS NIL))
      (RECORDS MELODY PASSAGE BEEP)
      (FNS PLAY.RESTART PLAY.NOTES PLAY.MELODY PLAY.MELODY1 PLAY.OCTAVE PLAY.TEMPO PLAY.KEY PLAY.REPEAT
        PLAY.PASSAGE PLAY.NOTE PLAY.NOTE1))
    (COMS
      (INITVARS (PLAY.KEYBOARD.ALIST NIL)
        (PLAY.TRANSCRIBE.ALIST NIL))
      (FNS PLAY.KEYBOARD PLAY.TRANSCRIBE PLAY.ADJUST.TEMPO PLAY.ADJUST.PITCH))
    (COMS
      (INITVARS (PLAY.MESA.OCTAVE NIL)
        (PLAY.MESA.TRIPLE NIL)
        (PLAY.MESA.DURATION NIL)
        (PLAY.MESA.BREAK NIL))
      (FNS PLAY.MESA PLAY.MESA.NOTE PLAY.MESA.NOTE1))
    (COMS
      (VARS DEMO.MELODY DEMO.TUNE)
      (FNS PLAY.DEMO))
    (P (PLAY.RESTART)))
    ; PLAY -- By Kelly Roach. *
    ; PLAYLISP *
    ; PLAYKBD *
    ; PLAYMESA *
    ; DEMO *
```

:: PLAY -- By Kelly Roach. *

:: PLAYLISP *

(DECLARE%: EVAL@COMPILE

(RPAQQ **PLAY.ROOM** 10000)

(RPAQQ **PLAY.TOY** 32)

(RPAQQ **PLAY.FREQA** 1760)

(RPAQQ **PLAY.SILENT** NIL)

(CONSTANTS (PLAY.ROOM 10000)
 (PLAY.TOY 32)
 (PLAY.FREQA 1760)
 (PLAY.SILENT NIL))
)

(RPAQ? **PLAY.OCTAVE** NIL)

(RPAQ? **PLAY.DURATION** NIL)

(RPAQ? **PLAY.BREAK** NIL)

(RPAQ? **PLAY.SHARP** NIL)

(RPAQ? **PLAY.FLAT** NIL)

(RPAQ? **PLAY.TWELFTHS** NIL)

(RPAQ? **PLAY.POWERS** NIL)

(DECLARE%: EVAL@COMPILE

(TYPE RECORD MELODY (TEMPO KEY METER BEAT PASSAGES))

{MEDLEY}<lispusers>PLAY.;1

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(RECORD PASSAGE (REPEATS MEASURES))

(RECORD BEEP (FREQ . DURATION))
)

(DEFINEQ

(PLAY.RESTART

```
[LAMBDA NIL (* kbr%: " 8-Feb-84 10:47")
 (PROG NIL (* PLAY. *))
  (SETQ PLAY.TWELFTHS (ARRAY 7 'FIXP 0 0))
  (for I from 0 to 6 as J in '(12 14 3 5 7 8 10) do (SETA PLAY.TWELFTHS I J))
  (SETQ PLAY.POWERS (ARRAY 12 'FIXP 0 0))
  (for I from 0 to 11 do (SETA PLAY.POWERS I (FIXR (FTIMES (EXPT 2.0 (FQUOTIENT (FLOAT I)
                                                                                   12.0))
                                                     (FLOAT PLAY.ROOM]
                                     (* Global Environment. *)
  (PLAY.OCTAVE 8)
  (PLAY.TEMPO 'MODERATE)
  (PLAY.KEY 'CMAJOR) (* KEYBOARD. *)
  [SETQ PLAY.KEYBOARD.ALIST
   (for CODE in (CHCON "ASDFGHJKL;'_WRTUIO[]") as NOTE
    in '(<a <b c d e f g a b >c >d >e <a# c# d# f# g# a# >c# >d#)
    collect (CONS CODE (fetch (BEEP FREQ) of (CAR (PLAY.NOTE NOTE]
   (SETQ PLAY.TRANSCRIBE.ALIST
    (for BUCKET in PLAY.KEYBOARD.ALIST as NOTE
     in '(<a <b c d e f g a b >c >d >e <a# c# d# f# g# a# >c# >d#) collect (CONS (CDR BUCKET)
                                                                                   NOTE]))
```

(PLAY.NOTES

```
[LAMBDA (NOTES) (* kbr%: " 8-Feb-84 10:47")
  (* Converts series of NOTES into a TUNE suitable for playing by
  PLAYTUNE. *)
  (FOR NOTE IN NOTES JOIN (PLAY.NOTE NOTE]))
```

(PLAY.MELODY

```
[LAMBDA (MELODY) (* kbr%: " 8-Feb-84 10:47")
  (* Converts a MELODY into a TUNE suitable for playing by
  PLAYTUNE. *)
  (PROG (TUNE)
    (COND
      ((NOT (TYPE? MELODY MELODY))
       (printout T "Illegal MELODY " MELODY " ignored")
       (RETURN NIL)))
    (PLAY.OCTAVE 8)
    (PLAY.TEMPO (fetch (MELODY TEMPO) of MELODY)
                (fetch (MELODY BEAT) of MELODY))
    (PLAY.KEY (fetch (MELODY KEY) of MELODY))
    (SETQ TUNE (PLAY.MELODY1 MELODY))
    (RETURN TUNE]))
```

(PLAY.MELODY1

```
[LAMBDA (MELODY) (* kbr%: " 8-Feb-84 10:47")
  (PROG (MAXREPEAT TUNE) (* Calc MAXREPEAT. *)
    (SETQ MAXREPEAT MIN.FIXP)
    [FOR PASSAGE IN (fetch (MELODY PASSAGES) of MELODY) DO (SETQ MAXREPEAT
                                                                (IMAX MAXREPEAT (APPLY 'IMAX
                                                                 (fetch (PASSAGE REPEATS)
                                                                    of PASSAGE]
                                                                (* Calc TUNE. *)
    (SETQ TUNE (FOR REPEAT FROM 1 TO MAXREPEAT JOIN (PLAY.REPEAT MELODY REPEAT)))
    (RETURN TUNE]))
```

(PLAY.OCTAVE

```
[LAMBDA (OCTAVE) (* kbr%: " 8-Feb-84 10:47")
  (PROG NIL
    (SETQ PLAY.OCTAVE OCTAVE]))
```

(PLAY.TEMPO

```
[LAMBDA (TEMPO BEAT) (* kbr%: " 8-Feb-84 10:47")
  (* Establish TEMPO = beats per minute.
  *)
  (COND
    ((NULL BEAT)
     (SETQ BEAT 4)))
  (PROG NIL
    (SETQ TEMPO (SELECTQ TEMPO
                          ((ALLEGRO FAST)
                           120)
                          ((MODERATO MODERATE NIL)
                           90)
```

```

      ((ADAGIO SLOW)
       60)
      TEMPO))
  (SETQ PLAY.DURATION (IQUOTIENT (ITIMES 600000 BEAT)
                                  (ITIMES TEMPO 2)))

```

(PLAY.KEY

[LAMBDA (KEY)

(* kbr%: "11-Jul-86 12:59")
 (* Establish KEY signature. *)

```

  (PROG NIL
    [SETQ KEY (COND
      ((LISTP KEY)
       KEY)
      (T (SELECTQ KEY
        (CMAJOR '(%#))
        (GMAJOR '(%# F))
        (DMAJOR '(%# F C))
        (AMAJOR '(%# F C G))
        (EMAJOR '(%# F C G D))
        (BMAJOR '(%# F C G D A))
        (F#MAJOR '(%# F C G D A E))
        (C#MAJOR '(%# F C G D A E B))
        (FMAJOR '(@ B))
        (B@MAJOR '(@ B E))
        (E@MAJOR '(@ B E A))
        (A@MAJOR '(@ B E A D))
        (D@MAJOR '(@ B E A D G))
        (G@MAJOR '(@ B E A D G C))
        (C@MAJOR '(@ B E A D G C F))
        NIL]
      (SELECTQ (CAR KEY)
        (%# (SETQ PLAY.SHARP (CDR KEY))
          (SETQ PLAY.FLAT NIL))
        (@ (SETQ PLAY.SHARP NIL)
          (SETQ PLAY.FLAT (CDR KEY)))
        (PROGN (SETQ PLAY.SHARP NIL)
          (SETQ PLAY.FLAT NIL)))
      (PROGN (SETQ PLAY.SHARP (for LETTER in PLAY.SHARP collect (CHCON1 LETTER)))
        (SETQ PLAY.FLAT (for LETTER in PLAY.FLAT collect (CHCON1 LETTER)))

```

(PLAY.REPEAT

[LAMBDA (MELODY REPEAT)

(* kbr%: "8-Feb-84 10:47")
 (* Return TUNE for this REPEAT of MELODY.
 *)

```

  (FOR PASSAGE IN (fetch (MELODY PASSAGES) of MELODY) WHEN (MEMB REPEAT (fetch (PASSAGE REPEATS) of PASSAGE))
    JOIN (PLAY.PASSAGE PASSAGE])

```

(PLAY.PASSAGE

[LAMBDA (PASSAGE)

(* kbr%: "8-Feb-84 10:47")
 (* Return TUNE for PASSAGE. *)

```

  (FOR MEASURE IN (fetch (PASSAGE MEASURES) of PASSAGE) JOIN (PLAY.NOTES MEASURE])

```

(PLAY.NOTE

[LAMBDA (NOTE)

(* kbr%: "11-Jul-86 12:56")
 (* Return TUNE for NOTE. *)

```

  (PROG (LETTER OCTAVE DURATION BREAK ACCIDENTAL DOTS TUNE)
    (SETQ OCTAVE PLAY.OCTAVE)
    (SETQ DURATION PLAY.DURATION)
    (SETQ BREAK PLAY.ROOM)
    (SETQ DOTS 0)
    [for CODE in (CHCON NOTE)
      do (SELCHARQ CODE
        ((A B C D E F G R a b c d e f g r)
         (SETQ LETTER CODE))
        ("<" (SETQ OCTAVE (ITIMES OCTAVE 2)))
        (">" (SETQ OCTAVE (IQUOTIENT OCTAVE 2)))
        ("x" (SETQ DURATION (ITIMES DURATION 2)))
        ("/" "/" (SETQ DURATION (IQUOTIENT DURATION 2)))
        (("1" "2" "3" "4" "5" "6" "7" "8" "9")
         [SETQ DURATION (IQUOTIENT (ITIMES (CHARACTER CODE)
                                         DURATION)
                                   (ADD1 (CHARACTER CODE))
         ("+" (SETQ DOTS (ADD1 DOTS)))
         ("^" (SETQ BREAK (ITIMES BREAK 2)))
         ("_" (SETQ BREAK (IQUOTIENT BREAK 2)))
         ("@" [COND
           (NULL ACCIDENTAL)
           (SETQ ACCIDENTAL -1))
         (T (SETQ ACCIDENTAL (SUB1 ACCIDENTAL))
         ("#" [COND
           (NULL ACCIDENTAL)
           (SETQ ACCIDENTAL 1))
         (T (SETQ ACCIDENTAL (ADD1 ACCIDENTAL))

```

```

      ((N n)
       (SETQ ACCIDENTAL 0))
      (PROGN (printout T "Illegal note " NOTE " ignored.")
              (RETURN NIL])
[COND
  ((NULL ACCIDENTAL)
   (COND
    ((MEMB LETTER PLAY.SHARP)
     (SETQ ACCIDENTAL 1))
    ((MEMB LETTER PLAY.FLAT)
     (SETQ ACCIDENTAL -1))
    (T (SETQ ACCIDENTAL 0))
   [SELECTQ DOTS
    (0 (* Do nothing. *))
    (1 (SETQ DURATION (IQUOTIENT (ITIMES 3 DURATION)
                                  2)))
    (2 (SETQ DURATION (IQUOTIENT (ITIMES 7 DURATION)
                                  4)))
    (SETQ DURATION (IQUOTIENT (ITIMES (SUB1 (EXPT 2 (ADD1 DOTS)))
                                DURATION)
                              (EXPT 2 DOTS]
    (* Compute DURATION & BREAK.
    *)
   (SETQ BREAK (IQUOTIENT (ITIMES 3 BREAK DURATION)
                           (ITIMES 8 PLAY.ROOM)))
   (SELCHARQ LETTER
    ((A B C D E F G R)
     (SETQ BREAK 0))
    (r (SETQ BREAK 0)
     (SETQ LETTER (CHARCODE R)))
    ((a b c d e f g)
     (SETQ BREAK (IMIN BREAK DURATION))
     (SETQ DURATION (IDIFFERENCE DURATION BREAK))
     [SETQ LETTER (IPLUS LETTER (IDIFFERENCE (CHARCODE A)
                                              (CHARCODE a]))
      (SHOULDN'T)
      (* Compute TUNE. *)
      (SETQ TUNE (PLAY.NOTE1 OCTAVE LETTER ACCIDENTAL DURATION BREAK))
      (RETURN TUNE])

```

(PLAY.NOTE1

```

[LAMBDA (OCTAVE LETTER ACCIDENTAL DURATION BREAK)
  (PROG (FREQ TWELFTH TUNE)
    [COND
      ((IEQP LETTER (CHARCODE R))
       (* Rest. *)
       (SETQ FREQ PLAY.SILENT))
      (T
       (* Compute TWELFTH. *)
       [SETQ TWELFTH (ELT PLAY.TWELFTHS (IDIFFERENCE LETTER (CHARCODE A)
                                                         (CHARCODE R)))
        (SETQ TWELFTH (IPLUS TWELFTH ACCIDENTAL))
        [COND
          [(IGEQ TWELFTH 12)
           (while (IGEQ TWELFTH 12) do (SETQ TWELFTH (IDIFFERENCE TWELFTH 12))
                  (SETQ OCTAVE (IQUOTIENT OCTAVE 2))
           ((ILESSP TWELFTH 0)
            (while (ILESSP TWELFTH 0) DO (SETQ TWELFTH (IPLUS TWELFTH 12))
                                           (SETQ OCTAVE (ITIMES OCTAVE 2))

```

(* Constant PLAY.TOY is to help reduce round off error. Adding (IQUOTIENT OCTAVE 2) then dividing by OCTAVE amounts to dividing by OCTAVE then adding one-half, but less round off error. *)

```

      (SETQ FREQ (ITIMES PLAY.TOY PLAY.FREQA))
      (SETQ OCTAVE (ITIMES PLAY.TOY OCTAVE))
      (SETQ FREQ (IQUOTIENT (ITIMES FREQ (ELT PLAY.POWERS TWELFTH)
                                     PLAY.ROOM))
                        (IPLUS FREQ (IQUOTIENT OCTAVE 2))
      (SETQ FREQ (IQUOTIENT (IPLUS FREQ (IQUOTIENT OCTAVE 2))
                            OCTAVE]
      (* Compute TUNE. *)
[COND
  ((NOT (ZEROP BREAK))
   (push TUNE (create BEEP
                      FREQ _ PLAY.SILENT
                      DURATION _ BREAK]
  [COND
    ((NOT (ZEROP DURATION))
     (push TUNE (create BEEP
                        FREQ _ FREQ
                        DURATION _ DURATION]
    (* Okey Dokey. *)
  (RETURN TUNE])

```

)

;; PLAYKBD *

(RPAQ? PLAY.KEYBOARD.ALIST NIL)

(RPAQ? PLAY.TRANSCRIBE.ALIST NIL)

(DEFINEQ

(PLAY.KEYBOARD

```

[LAMBDA NIL
  (PROG (KEY FREQ TUNE CLOCK OLDCLOCK OCTAVE)
    (SETQ OLDCLOCK (CLOCK 0))
    (SETQ OCTAVE PLAY.OCTAVE)
    [do
      (SETQ KEY (\GETKEY))
      (SELCHARQ KEY
        (" " (RETURN))
        ">" (SETQ OCTAVE (ITIMES OCTAVE 2)))
        "<" (SETQ OCTAVE (IQUOTIENT OCTAVE 2)))
      (PROGN
        (SETQ CLOCK (CLOCK 0))
        (push TUNE (create BEEP
          FREQ _ PLAY.SILENT
          DURATION _ (IDIFFERENCE CLOCK OLDCLOCK)))
        (SETQ OLDCLOCK CLOCK)
        (SETQ FREQ (CDR (ASSOC KEY PLAY.KEYBOARD.ALIST)))
        (SETQ FREQ (IQUOTIENT (ITIMES FREQ OCTAVE)
          PLAY.OCTAVE))
        (COND
          (FREQ (BEEPON FREQ)
            (while (KEYDOWNP (CHARACTER KEY)) do
              (BEEPOFF)))
          (SETQ CLOCK (CLOCK 0))
          (push TUNE (create BEEP
            FREQ _ FREQ
            DURATION _ (IDIFFERENCE CLOCK OLDCLOCK)))
          (SETQ OLDCLOCK CLOCK]
        (SETQ TUNE (DREVERSE TUNE))
        (RETURN TUNE])
    (* kbr%: " 5-Feb-84 19:55")
    (* Get note. *)
    (* Record rest. *)
    (* Play note. *)
    (* Hold note. *)
    (* Record note. *)
  )

```

(PLAY.TRANSCRIBE

```

[LAMBDA (TUNE)
  (for BEEP in TUNE when (NOT (EQ (fetch (BEEP FREQ) of BEEP)
    PLAY.SILENT))
    collect (CDR (ASSOC (fetch (BEEP FREQ) of BEEP)
      PLAY.TRANSCRIBE.ALIST]))
  ; Edited 28-Sep-91 12:54 by jds
  *)
  (* Transcribe TUNE into NOTES.
  *)

```

(PLAY.ADJUST.TEMPO

```

[LAMBDA (TUNE FACTOR)
  (PROG (ANSWER)
    (SETQ FACTOR (FIXR (FTIMES (FLOAT FACTOR)
      PLAY.ROOM)))
    [SETQ ANSWER (for BEEP in TUNE collect (create BEEP
      FREQ _ (fetch (BEEP FREQ) of BEEP)
      DURATION _ (IQUOTIENT (ITIMES FACTOR (fetch (BEEP DURATION)
        of BEEP))
        PLAY.ROOM]
    (RETURN ANSWER])
  (* kbr%: " 5-Feb-84 19:55")
  *)
  (* Adjust tempo of TUNE by FACTOR.
  *)

```

(PLAY.ADJUST.PITCH

```

[LAMBDA (TUNE SEMITONES)
  (PROG (FACTOR ANSWER)
    (SETQ FACTOR (FIXR (FTIMES (EXPT 2.0 (FQUOTIENT (FLOAT SEMITONES)
      12.0))
      PLAY.ROOM)))
    [SETQ ANSWER (for BEEP in TUNE collect (create BEEP
      FREQ _ (COND
        ((EQ (fetch (BEEP FREQ) of BEEP)
          PLAY.SILENT)
          PLAY.SILENT)
        (T (IQUOTIENT (ITIMES FACTOR (fetch (BEEP FREQ)
          of BEEP))
          PLAY.ROOM)))
      DURATION _ (fetch (BEEP DURATION) of BEEP]
    (RETURN ANSWER])
  (* kbr%: " 5-Feb-84 19:55")
  *)
  (* Adjust pitch of TUNE by number of SEMITONES.
  *)

```

)

;; PLAYMESA *

(RPAQ? PLAY.MESA.OCTAVE NIL)

(RPAQ? PLAY.MESA.TRIPLE NIL)

(RPAQ? **PLAY.MESA.DURATION** NIL)(RPAQ? **PLAY.MESA.BREAK** NIL)

(DEFINEQ

(PLAY.MESA

[LAMBDA (STRING DURATION)

(* kbr%: " 5-Feb-84 19:55")

(COND

((NULL DURATION)

(SETQ DURATION 0)))

(PROG (STREAM NOTES NOTE)

(SETQ **PLAY.MESA.NOTES** NIL)(SETQ **PLAY.MESA.OCTAVE** 0)(SETQ **PLAY.MESA.TRIPLE** NIL)(SETQ **PLAY.MESA.DURATION** DURATION)(SETQ **PLAY.MESA.BREAK** 0)

(SETQ STREAM (OPENSTRINGSTREAM STRING))

(SETQ NOTES (**while** (AND (NOT (EOFP STREAM))
(SETQ NOTE (**PLAY.MESA.NOTE** STREAM)))
collect NOTE))

(RETURN NOTES])

(PLAY.MESA.NOTE

[LAMBDA (STREAM)

(* kbr%: " 5-Feb-84 19:55")

(* Read mesa note then add lisp note to **PLAY.MESA.NOTES**.

*)

(* Read mesa note. *)

(PROG (LETTER SHARP DURATION DOT CODE NOTE)

(SETQ SHARP 0)

(SETQ DURATION **PLAY.MESA.DURATION**)

(SETQ DOT 0)

(**while** [AND (NOT (EOFP STREAM))

(OR (NULL LETTER)

(MEMB (\PEEKBIN STREAM)

'(%# -])

do (SETQ CODE (\BIN STREAM))

(SELCHARQ CODE

((A B C D E F G a b c d e f g)

(SETQ LETTER CODE))

(% (SETQ LETTER (CHARCODE r)))

("#" (SETQ SHARP (ADD1 SHARP)))

(">" (SETQ **PLAY.MESA.OCTAVE** (ADD1 **PLAY.MESA.OCTAVE**)))("<" (SETQ **PLAY.MESA.OCTAVE** (SUB1 **PLAY.MESA.OCTAVE**)))("/" "/" (SETQ **PLAY.MESA.DURATION** (SUB1 **PLAY.MESA.DURATION**))

(SETQ DURATION (SUB1 DURATION)))

("*" (SETQ **PLAY.MESA.DURATION** (ADD1 **PLAY.MESA.DURATION**))

(SETQ DURATION (ADD1 DURATION)))

("^" (SETQ **PLAY.MESA.BREAK** (ADD1 **PLAY.MESA.BREAK**)))("_" (SETQ **PLAY.MESA.BREAK** (SUB1 **PLAY.MESA.BREAK**)))

("+ " (SETQ DOT (ADD1 DOT)))

("- " (SETQ DURATION (SUB1 DURATION)))

(" (" (SETQ **PLAY.MESA.TRIPLE** T))(")" (SETQ **PLAY.MESA.TRIPLE** NIL))

(* Do nothing. *)

(* Calc Lisp note. *)

[COND

(LETTER (SETQ NOTE (**PLAY.MESA.NOTE1** LETTER SHARP DURATION DOT)

(* Okey Dokey. *)

(RETURN NOTE])

(PLAY.MESA.NOTE1

[LAMBDA (LETTER SHARP DURATION DOT)

(* kbr%: " 5-Feb-84 19:55")

(PROG (NOTE)

[SETQ NOTE (PACKC (\BQUOTE ([\COMMAAT (COND

((NOT (IEQP LETTER (CHARCODE r)))

(COND

((IGREATERP **PLAY.MESA.OCTAVE** 0)(**FOR I FROM 1 TO** **PLAY.MESA.OCTAVE****COLLECT** (CHARCODE >)))((ILESSP **PLAY.MESA.OCTAVE** 0)(**FOR I FROM 1 TO** (IMINUS **PLAY.MESA.OCTAVE**)**COLLECT** (CHARCODE <])

([\COMMA LETTER)

([\COMMAAT (**FOR I FROM 1 TO** SHARP **COLLECT** (CHARCODE %#)))

([\COMMAAT (COND

(PLAY.MESA.TRIPLE (LIST (CHARCODE "3")

([\COMMAAT (COND

((IGREATERP DURATION 0)

(**FOR I FROM 1 TO** DURATION **COLLECT** (CHARCODE x)))

((ILESSP DURATION 0)

(**FOR I FROM 1 TO** (IMINUS DURATION)**COLLECT** (CHARCODE /])([\COMMAAT (**FOR I FROM 1 TO** DOT **COLLECT** (CHARCODE +])

(RETURN NOTE])

)

;; DEMO *

(RPAQQ **DEMO.MELODY**

```

[MELODY MODERATE (%# F)
  4 4 ((1)
    ((b/+ >c//)
      (>Dx >d/+ b// a/+ b//)
      (gx+ b/+ b//)
      (A/+ G// E e/+ e// b/+ b//)
      (ax+ b/+ >c//)
      (>Dx >d/+ b// a/+ b//)
      (gx+ b/+ b//)
      (A/+ G// E e/+ e// b/+ b//)
      (ax+ b/ >c//)
      (>Dx >d/+ b// a/+ b//)
      (gx+ b/+ b//)
      (A/+ G// E e/+ e// b/+ b//)
      (ax+ b/ >c//+)
      (>Dx >d/+ b// a/+ b//)
      (gx+ b/+ b/)
      (a/+ g// ex b/+ b//)
      (axx)))
    ((1 2 3)
      ((>d >d >d >d/+ >e//)
        (a/+ a// a/+ a// ax)
        (a/+ a// a/+ a// ax)
        (g/+ g// g/+ g// gx)
        (>d >d >d >d/+ >e//)
        (a/+ a// a/+ a// ax)
        (a/+ a// a/+ a// ax)
        (g/+ g// g/+ g// g)))
      ((1 2)
        ((b/+ >c//)
          (>Dx >d/+ b// a/+ b/)
          (gx+ b/+ b//)
          (a/+ g// ex b/+ b//)
          (ax+ b/+ >c/)
          (>Dx >d/+ b// a/+ b//)))
      ((1)
        ((gx+ d3/ e3/ f3/)
          (g/ B// A#// b/ B// A#// b <d3/ <e3/ <f3/)
          (<g <f <e <d)))
      ((2)
        ((gx+ b/+ b//)
          (A/+ g// ex b/+ b//)
          (axx]))

```

(RPAQQ **DEMO.TUNE**

```

((494 . 6250)
 (NIL . 3749)
 (523 . 2084)
 (NIL . 1249)
 (587 . 26666)
 (587 . 6250)
 (NIL . 3749)
 (494 . 2084)
 (NIL . 1249)
 (440 . 6250)
 (NIL . 3749)
 (494 . 2084)
 (NIL . 1249)
 (392 . 25000)
 (NIL . 14999)
 (494 . 6250)
 (NIL . 3749)
 (494 . 2084)
 (NIL . 1249)
 (440 . 9999)
 (392 . 3333)
 (330 . 13333)
 (330 . 6250)
 (NIL . 3749)
 (330 . 2084)
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 (NIL . 3749)
 (494 . 2084)
 (NIL . 1249)
 (440 . 25000)
 (NIL . 14999)
 (494 . 6250)
 (NIL . 3749)
 (523 . 2084)
 (NIL . 1249)
 (587 . 26666)

```

(587 . 6250)
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(494 . 2084)
(NIL . 1249)
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(NIL . 3749)
(494 . 2084)
(NIL . 1249)
(392 . 25000)
(NIL . 14999)
(494 . 6250)
(NIL . 3749)
(494 . 2084)
(NIL . 1249)
(440 . 9999)
(392 . 3333)
(330 . 13333)
(330 . 6250)
(NIL . 3749)
(330 . 2084)
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(NIL . 1249)
(440 . 25000)
(NIL . 14999)
(494 . 4167)
(NIL . 2499)
(523 . 2084)
(NIL . 1249)
(587 . 26666)
(587 . 6250)
(NIL . 3749)
(494 . 2084)
(NIL . 1249)
(440 . 6250)
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(**PLAY.DEMO**

[LAMBDA NIL
(PLAYTUNE DEMO.TUNE)]

(* kbr%: " 5-Feb-84 21:14")

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(**PLAY.RESTART**)

(PUTPROPS **PLAY COPYRIGHT** ("Xerox Corporation" 1986 1991))

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