```
(RPAQQ GAUGEDIGIMETERCOMS
        ((DECLARE%: DONTCOPY (PROP MAKEFILE-ENVIRONMENT GAUGEDIGIMETER))
         (FILES (FROM VALUEOF LOOPSLIBRARYDIRECTORY)
                GAUGEMETERS GAUGEALPHANUMERICS)
         (CLASSES DigiMeter)
         (METHODS DigiMeter.ComputeScale DigiMeter.Set DigiMeter.SetParameters DigiMeter.Shape
                DigiMeter.ShowReading)
         (FILES (FROM VALUEOF LOOPSLIBRARYDIRECTORY)
                GAUGESCALES)
         (CLASSES DigiScale)
         (METHODS DigiScale.Set DigiScale.SetParameters DigiScale.ShowReading)))

(DECLARE%: DONTCOPY

(PUTPROPS GAUGEDIGIMETER MAKEFILE-ENVIRONMENT (:PACKAGE "IL" :READTABLE "INTERLISP" :BASE 10))
)

(FILESLOAD (FROM VALUEOF LOOPSLIBRARYDIRECTORY)
       GAUGEMETERS GAUGEALPHANUMERICS)

(DEFCLASSES DigiMeter)

(DEFCLASS DigiMeter (MetaClass Class doc "A combination Meter and LCD, for both analog and digital readout."
                                Edited%:                              (* RBGMartin "29-Apr-86 14:25"))
        (Supers Meter LCDMixin)
        (InstanceVariables (spaceForLCD 30 doc "this is the vertical space required for the LCD in the window. It
                                is dependent upon the font and is set by SetParameters.")))

(\BatchMethodDefs)

(METH DigiMeter ComputeScale (min max labelScale)
      "Compute scale for both dial and alphaDisplay"
      (category (Instrument)))

(METH DigiMeter Set (reading)
      "set both on dial and on digits"
      (category (Meter)))

(METH DigiMeter SetParameters NIL "Set all params" (category (Internal)))

(METH DigiMeter Shape (newRegion noUpdateFlg)
      "Shapes outside of region to specified shape. If newRegion is bound, make sure it is at least the minimum
      required size. If it is not specified, prompt for a new region based upon minimum size."
      (category (Public)))

(METH DigiMeter ShowReading (reading)
      "Show displayVal both on dial and on digits"
      (category (RoundScale)))

(Method ((DigiMeter ComputeScale)
         self min max labelScale)                                   ; dgb: 10-JUN-83 11:53
       "Compute scale for both dial and alphaDisplay"
       (_SuperFringe
        self ComputeScale min max labelScale))

(Method ((DigiMeter Set)
         self reading)                                              ; dgb: 10-JUN-83 11:53
       "set both on dial and on digits"
       (_SuperFringe
        self Set reading))

[Method ((DigiMeter SetParameters)
         self)                                                      ; edited: 28-Jan-87 22:46
       "Set all params"
       (PROG ((window (@ window))
              (fontHeight (FONTHEIGHT (@ font)))
              border titleHeight)
             (_Super)
             (SETQ border (WINDOWPROP window 'BORDER))
```

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                [SETQ titleHeight (PLUS border (COND
                                                    ((@ title)
                                                     (FONTHEIGHT (DSPFONT NIL WindowTitleDisplayStream)))
                                                    (T 0]

        (* first determine height for meter, then add to it the height for the LCD.
        Height of meter is same as the width.)

                (_@
                 spaceForLCD
                 (PLUS 3 border fontHeight))
                (_@
                 height
                 (HEIGHTIFWINDOW (PLUS (@ yc)
                                       (ShowRayLabelLength self (@ radius))
                                       (IQUOTIENT fontHeight 2)
                                       (@ spaceForLCD))
                        (@ title)))
                (_@
                 height%:,min
                 (PLUS (@ height%:,min)
                       (@ spaceForLCD)))
                [_@
                 readingY
                 (IDIFFERENCE (@ height)
                        (PLUS titleHeight (@ spaceForLCD]              (* set up small reading region)
                (_ self SmallRegion)
                [_@
                 width%:,min
                 (MAX (@ width%:,min)
                       (fetch WIDTH of (@ precision%:,readingRegion]
                (_@
                 width
                 (MAX (@ width)
                       (@ width%:,min]

(Method ((DigiMeter Shape)
         self newRegion noUpdateFlg)                                  ; RBGMartin 28-Jan-87 17:12
        "Shapes outside of region to specified shape. If newRegion is bound, make sure it is at least the minimum
        required size. If it is not specified, prompt for a new region based upon minimum size."
        (_Super
         self Shape (if newRegion
                         then (GetMinRegion newRegion self)
                         else (GETREGION (@ width%:,min)
                                    (@ height%:,min)
                                    (WINDOWPROP (@ window)
                                          'REGION)
                                    (FUNCTION DigiMeterNEWREGIONfn)
                                    self))
         noUpdateFlg))

(Method ((DigiMeter ShowReading)
         self reading)                                                ; dgb: 28-OCT-83 11:30
        "Show displayVal both on dial and on digits"
        (_SuperFringe
         self ShowReading reading))

(\UnbatchMethodDefs)

(FILESLOAD (FROM VALUEOF LOOPSLIBRARYDIRECTORY)
        GAUGESCALES)

(DEFCLASSES DigiScale)

(DEFCLASS DigiScale (MetaClass Class doc "Combines a numeric display with an unlabelled proportional horizontal
                        scale" Edited%:                    (* dgb%: " 6-JUN-83 17:55"))
        (Supers HorizontalScale LCDMixin)
        (InstanceVariables (ticks NIL tickLength NIL doc "ticks on the instrument; value is number or NIL;
                                smallTicks is number between each large tick")
                (scaleHeight 6 doc "height of scale")
                (scaleLeft 6 doc "left edge of scale")
                (height 24 doc "a window high enough for 11 labels")
                (width 70)
                (spaceForLCD 30 doc "this is the vertical space required for the LCD in the window. It is
                        dependent upon the font and is set by SetParameters.")))

(\BatchMethodDefs)

(METH DigiScale Set (reading)
        "Combined method for Set"
        (category (HorizontalScale)))

(METH DigiScale SetParameters NIL "Set parameters for unscaled horizontal gauge combined with LCD on top"
        (category (Internal)))

(METH DigiScale ShowReading NIL "dgb:  9-JUN-83 21:34" (category (HorizontalScale)))
```

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(Method ((DigiScale Set)
          self reading)                                                 ; dgb: 10-JUN-83 11:54
       "Combined method for Set"
       (_SuperFringe
        self Set reading))

[Method ((DigiScale SetParameters)
          self)                                                         ; edited: 28-Jan-87 23:21
       "Set parameters for unscaled horizontal gauge combined with LCD on top"
       (PROG ((window (@ window))
              (fontHeight (FONTHEIGHT (@ font)))
              border titleHeight)
             (_Super)
             (SETQ border (WINDOWPROP window 'BORDER))
             [SETQ titleHeight (PLUS border (COND
                                               ((@ title)
                                                (FONTHEIGHT (DSPFONT NIL WindowTitleDisplayStream)))
                                               (T 0]
             (_@
              spaceForLCD
              (PLUS 3 border fontHeight))
             (_@
              scaleHeight
              (QUOTIENT fontHeight 2))
             (_@
              scaleBottom fontHeight)
             (_@
              height%:,min
              (HEIGHTIFWINDOW (IPLUS (@ scaleBottom)
                                     (@ scaleHeight)
                                     (COND
                                       ((@ ticks)                 (* add 8 to tickLength for extra space on each end of tick.)
                                        (PLUS 8 (@ ticks%:,tickLength)))
                                       (T (QUOTIENT fontHeight 3)))
                                     (@ spaceForLCD))
                              (@ title)))
             (_@
              height
              (MAX (@ height)
                   (@ height%:,min)))
             [_@
              readingY
              (IPLUS (@ scaleBottom)
                     (@ scaleHeight)
                     (COND
                       ((@ ticks)                               (* add 8 to tickLength for extra space on each end of tick.)
                        (PLUS 8 (@ ticks%:,tickLength)))
                       (T (QUOTIENT fontHeight 3]
             (_ self SmallRegion)
             [_@
              width%:,min
              (MAX (@ width%:,min)
                   (fetch WIDTH of (@ precision%:,readingRegion]
             (_@
              width
              (MAX (@ width)
                   (@ width%:,min]

(Method ((DigiScale ShowReading)
          self)                                                         ; dgb: 10-JUN-83 11:54
       "dgb:  9-JUN-83 21:34"                                           ; Combined method for ShowReading
       (_SuperFringe
        self ShowReading))

(\UnbatchMethodDefs)

(PUTPROPS GAUGEDIGIMETER COPYRIGHT ("Venue & Xerox Corporation" 1986 1987 1988 1990 1993))
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PROPERTY INDEX