```
()
Prgm
©(GUI only) NiMH battery cycle tracker
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Local lastcycl,currtime,oldfold,dispplot,rawbatt,sel,t,s,str,k,
keepdata:false→dispplot:false→keepdata

setFold(main)→oldfold
Try
 NewFold mem
Else
 ClrErr
EndTry
setFold(#oldfold)

If not isVar(mem\batt) Then
 {}→mem\batt
EndIf

PopUp {"Record new cycle…","Plot all cycles","Recover graph"},sel
Try
 If sel=1 Then :EndIf
Else
 ClrErr
 0→sel
EndTry

If sel=1 Then
 Goto chkbatt
ElseIf sel=2 Then
 true→dispplot
 Goto plotbatt
ElseIf sel=3 Then
 Try
  PlotsOff 9
  RclGDB φφφbak
  DispHome
  DelVar φφφbak,mem\xplot,mem\yplot
 Else
  ClrErr
  misc\statline("msg:▪ Failed to recover graph state")
  Goto quit
 EndTry

 misc\statline("msg:✓ Recovered original graph state")
 Goto quit
ElseIf sel=0 Then
 Goto quit
EndIf


Lbl chkbatt
Try
 mem\batt[dim(mem\batt)]→lastcycl
Else
 ClrErr
 "N/A"→lastcycl
EndTry
getDtStr(1)&" @ "&getTmStr(12)→currtime

```

```
If isVar(misc\batteryb) Then
 misc\batteryb()
Else
 undef→battst
EndIf

Dialog
 Title "Record New Cycle"
 Text "Current battery level: "&string(battst)
 Text "# of cycles so far: "&string(dim(mem\batt))
 Text "Last cycle at: "&lastcycl
 Text ""
 Text "Current date/time: "&currtime
 Text "Record new cycle?"
EndDlog
If ok=1 Then
 misc\statline("msg:Recording new cycle…")
 Unarchiv mem\batt
 currtime→mem\batt[dim(mem\batt)+1]
 Archive mem\batt

 0→sel
 Dialog
  Title "Cycle Visualization"
  DropDown "Plot all cycles?",{"Yes","No"},sel
 EndDlog
 Try
  If sel=1 Then
   true→dispplot
  EndIf
 Else
  ClrErr
  false→dispplot
 EndTry
Else
 Goto quit
EndIf


Lbl plotbatt
If dispplot Then
 {}→mem\xplot
 dim(mem\batt)→s
 For t,1,s
  misc\statline("msg:Extracting cycle data… ("&string(t)&"/"&string(s)&")")
  mem\batt[t]→str
  misc\idbd(expr("20"&mid(mem\batt[1],7,2)&mid(mem\batt[1],1,
2)&mid(mem\batt[1],4,2)),expr("20"&mid(str,7,2)&mid(str,1,2)&mid(str,4,
2)))→mem\xplot[t]
 EndFor
 seq(t,t,1,dim(mem\batt))→mem\yplot

 StoGDB φφφbak
 FnOff
 setMode("Graph","FUNCTION")
 setGraph("Grid","Off")
 -5→xmin
 -3→ymin
 mem\xplot[dim(mem\xplot)]+5→xmax
 mem\yplot[dim(mem\yplot)]+3→ymax
 NewPlot 9,2,mem\xplot,mem\yplot,,,,4
```

```
120:  DispG
121:  misc\statline("pause")
122:  misc\statline("msg:Total cycle count: "&string(dim(mem\yplot)))
123:  While true
124:   getKey()→k
125:   If k=258 Then  ©[STO▶]
126:    true→keepdata
127:    Exit
128:   ElseIf k≠0 Then
129:    Exit
130:   EndIf
131:  EndWhile
132:
133:  If keepdata Then
134:   misc\statline("msg:◆ Saved data to mem\xplot,mem\yplot")
135:  Else
136:   PlotsOff 9
137:   RclGDB φφφbak
138:   DispHome
139:   DelVar φφφbak,mem\xplot,mem\yplot
140:  EndIf
141: Else
142:  misc\statline("msg:✓ Cycle recorded. New cycle count:
     "&string(dim(mem\batt)))
143: EndIf
144: Lbl quit
145: EndPrgm
```