

Full Source
Programming Language: Just
BASIC

```
newline$ = chr$(13) + chr$(10)
PrinterFont$ = "courier_new 10"
```

```
[input]
input "Please enter length of year (earth days): "; year 'length of year in earth days
input "Length of day (earth hours): "; day 'length of day in earth hours
input "Number of months: "; months 'number of months in year
months = int(months)
for i = 1 to months
    input "Name of month " + str$(i) + ": "; name$
    names$ = names$ + name$ + " "
next i
input "Days per week (planet days): "; weeks 'length of week in planet days
day = day/24 'length of day from earth hours to earth days
numOfDays = year/day 'days per year
lenMonths = int(numOfDays/months) 'days per month
unaccountedDays = numOfDays - (months * lenMonths)
backup1 = unaccountedDays
leftoverTime = unaccountedDays - int(unaccountedDays)
if (unaccountedDays <> 0) then
    print "Months will have unequal lengths."
end if
if (leftoverTime <> 0) then
    print "Leap year will be created."
    leapYear = 1
end if
i = 0
```

```
[calender.generation]
i = i + 1
currDay = 0
currMonthExtraDays = 0
if (unaccountedDays >= 1) then
    currMonthExtraDays = 1
    unaccountedDays = unaccountedDays - currMonthExtraDays
end if
calender$ = calender$ + "Month: " + word$(names$, i) + newline$
while (currDay < lenMonths + currMonthExtraDays)
    currDay = currDay + 1
    calender$ = calender$ + " " + str$(currDay)
    if (currDay mod weeks < 1) then
        calender$ = calender$ + newline$
    end if
wend
calender$ = calender$ + newline$ + newline$ + newline$
if (i < months) then
    goto [calender.generation]
end if
if (leapYear = 0) then
    print calender$
    print
    input "Would you like to print this calender? (y/n) " ; print$
    if (print$ = "y") then
        lprint calender$
        dump
    end if
    goto [input]
end if
```

```
[leapYear]
i = 0
tmp = .1
while (tmp <> int(tmp))
    i = i + 1
    tmp = leftoverTime * i
wend
calender$ = calender$ + "Leap year: every " + str$(i) + " years" + newline$
```

```

i = 0
unaccountedDays = backup1
unaccountedDays = unaccountedDays + tmp

[lyCal]
i = i + 1
currDay = 0
currMonthExtraDays = 0
if (unaccountedDays >= 1) then
    currMonthExtraDays = 1
    unaccountedDays = unaccountedDays - currMonthExtraDays
end if
calender$ = calender$ + "Month: " + word$(names$, i) + newline$
while (currDay < lenMonths + currMonthExtraDays)
    currDay = currDay + 1
    calender$ = calender$ + " " + str$(currDay)
    if (currDay mod weeks < 1) then
        calender$ = calender$ + newline$
    end if
wend
calender$ = calender$ + newline$ + newline$ + newline$
if (i < months) then
    goto [lyCal]
end if
print calender$
input "Would you like to print this calender? (y/n) " ; print$
if (print$ = "y") then
    lprint calender$
    dump
end if
goto [input]

```

```
newline$ = chr$(13) + chr$(10)
PrinterFont$ = "courier_new 10"
```

Calendar with Graphical User Interface

```
nomainwin 'uncomment this line only when the program is stable
'input "Please enter length of year (earth days): "; year 'length of year in earth days
'input "Length of day (earth hours): "; day 'length of day in earth hours
'input "Number of months: "; months 'number of months in year
```

```
WindowWidth = 424
WindowHeight = 660
```

```
statictext #calendar, "Length of year (earth days):", 30, 21, 168, 20
textbox #calendar.day, 222, 51, 100, 25
statictext #calendar, "Length of day (earth hours):", 30, 56, 168, 25
textbox #calendar.year, 222, 16, 100, 25
statictext #calendar, "Number of months:", 30, 91, 136, 20
textbox #calendar.months, 222, 86, 100, 25
statictext #calendar, "Days per week (planet days):", 30, 126, 184, 20
textbox #calendar.weeks, 222, 121, 100, 25
texteditor #calendar.monthNames, 30, 211, 360, 115
statictext #calendar, "Names of each month (separated by newlines):", 78, 171, 288, 25
statictext #calendar, "Genarated calendar:", 142, 346, 152, 20
texteditor #calendar.genCal, 30, 371, 360, 135
button #calendar.calculate, "Calculate", [calender.calculate], UL, 166, 556, 80, 25
open "Calendar for any planet" for window as #calendar
print #calendar, "font ms_sans_serif 0 16"
print #calendar, "trapclose [quit]"
```

```
wait
```

```
[calender.calculate] 'Perform action for the button named 'calculate'
print #calendar.year, "!contents? yearStr$"
print #calendar.day, "!contents? dayStr$"
print #calendar.months, "!contents? monthsStr$"
months = int(val(monthsStr$))
for i = 1 to months
    print #calendar.monthNames, "!line " ; i ; _
    " name$"
    names$ = names$ + name$ + " "
next i
'input "Days per week (planet days): "; weeks 'length of week in planet days
print #calendar.weeks, "!contents? weeksStr$"
weeks = val(weeksStr$)
day = val(dayStr$)
year = val(yearStr$)
day = day/24 'length of day from earth hours to earth days
numOfDays = year/day 'days per year
lenMonths = int(numOfDays/months) 'days per month
unaccountedDays = numOfDays - (months * lenMonths)
backup1 = unaccountedDays
leftoverTime = unaccountedDays - int(unaccountedDays)
if (unaccountedDays <> 0) then
    'print "Months will have unequal lengths."
    notice "Months will have unequal lengths."
end if
if (leftoverTime <> 0) then
    'print "Leap year will be created."
    notice "Leap year will be created."
    leapYear = 1
end if
i = 0
```

```

[calendar.generation]
i = i + 1
currDay = 0
currMonthExtraDays = 0
if (unaccountedDays >= 1) then
    currMonthExtraDays = 1
    unaccountedDays = unaccountedDays - currMonthExtraDays
end if
calendar$ = calendar$ + "Month: " + word$(names$, i) + newline$
while (currDay < lenMonths + currMonthExtraDays)
    currDay = currDay + 1
    calendar$ = calendar$ + " " + str$(currDay)
    if (currDay mod weeks < 1) then
        calendar$ = calendar$ + newline$
    end if
wend
calendar$ = calendar$ + newline$ + newline$ + newline$
if (i < months) then
    goto [calendar.generation]
end if
if (leapYear = 0) then
    'print calendar$
    'print
    print #calendar.genCal, "!contents calendar$"
    'input "Would you like to print this calendar? (y/n) " ; print$
    confirm "Would you like to print this calendar?"; print$
    if (print$ = "yes") then
        lprint calendar$
        dump
    end if
    'goto [input]
    wait 'for input
end if

[leapYear]
i = 0
tmp = .1
while (tmp <> int(tmp))
    i = i + 1
    tmp = leftoverTime * i
    scan 'do not delete this line
wend
calendar$ = calendar$ + "Leap year: every " + str$(i) + " years" + newline$
i = 0
unaccountedDays = backup1
unaccountedDays = unaccountedDays + tmp

[lyCal]
i = i + 1
currDay = 0
currMonthExtraDays = 0
if (unaccountedDays >= 1) then
    currMonthExtraDays = 1
    unaccountedDays = unaccountedDays - currMonthExtraDays
end if
calendar$ = calendar$ + "Month: " + word$(names$, i) + newline$
while (currDay < lenMonths + currMonthExtraDays)
    currDay = currDay + 1
    calendar$ = calendar$ + " " + str$(currDay)
    if (currDay mod weeks < 1) then
        calendar$ = calendar$ + newline$
    end if
wend
calendar$ = calendar$ + newline$ + newline$ + newline$
if (i < months) then
    goto [lyCal]
end if

```

```
'print calendar$
print #calendar.genCal, "!contents calendar$"
'input "Would you like to print this calender? (y/n) " ; print$
confirm "Would you like to print this calendar?"; print$
if (print$ = "yes") then
    lprint calendar$
    dump
end if
'goto [input]
wait 'for input

[quit]
close #calendar
end
```


Earth Calender

Months: 12

Length of Day: 24 hrs.

Days per year: 365.25

Days per week: 7

Month: ~~Jan~~

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month: Feb

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Total 365 days

Leap year: every 4 years

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28

29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30

Month:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21

22 23 24 25 26 27 28
29 30

Total 366 days