



HP41CX Program Listing

Title:	Alarm Clock Setting
Program Label:	LBL "ALM" / 114 bytes
Version:	1.1
Date:	09/01/1989

Description

This is a quick way to set the resident alarm clock.

Long before the PDA, this was a handy way to use the very stable clock in the HP41CX. It's still the case that if you need ultra-reliability, the HP is the machine to choose - it doesn't run out of power unexpectedly, need rebooting or get into some anomalous state, any one of which can prevent an alarm sounding on other platforms. If you absolutely, definitely have to get up for that important meeting, setting a repeating alarm will do the trick. Promise.

Furthermore, those at HP had the presence of mind to allow for dates in the range Jan 1, 1900 to Dec 31, 2199 so, (again) unlike the majority of popular computing platforms, the HP41CX has no issues with the millennium just past, or for the next century. Considering the build quality of this machine I wouldn't be surprised if one of these is still working even then...

Finding the batteries might be tricky but by then we will have micro fuel cells.

Core Logic

You may wish to check that the clock is set correctly first with the current date and time using the functions **SETIME** and **SETDATE**.

If you are in Europe, then don't forget the **DMY** function to configure the date correctly.

Loads the stack for the **XYZALM** command.

You can alter the program as necessary if you prefer using a 24 hour clock - it does save a step and therefore speeds entry by a few seconds.

The program tests flag 22 to see if there has been any numeric input and will automatically enter zero for the repeat and date if you touch **R/S** without entering anything.

This program uses the **QA** subroutine to prompt the user. You can find it on the IE site at: <http://www.inventors-emporium.co.uk> and follow the links to the HP41CX.

Execution

Execute **ALM** from the keyboard or with a key assignment for convenience.

To the prompts from the HP41CX enter the following:

RPT DELAY? . 0 1 (for 1 minute intervals) or **R/S** for no repeat
DATE? DD.MMYYYY or **R/S** for today's date
TIME? HH.MM - 12 hour clock
AM/PM? Key "A" or "P"
MESSAGE? Any text string or touch **R/S** to leave it blank.

Confirmation that the data is OK is given by "**ALM IS SET**"

The settings may be checked at a later time by listing **CAT 5**.

When the alarm falls due, a pair of tones will sound and the message will be displayed. If the alarm is not acknowledged within 5 flashes of the display the HP will sound 16 pairs of tones.

Acknowledging alarms

You can acknowledge alarms that fall due in various ways. (See Section 16 of Manual 2).

Touching **←** or **ON** will halt the alarm, clear the display and clear the alarm from memory unless it is a repeating alarm (see below).

Touching **STO** will halt the alarm, prolong the message display for 3 seconds and retain the alarm as past due.

Touching any other key will halt the alarm, prolong the message display by 3 seconds and clear the alarm from memory unless it is a repeating alarm (see below).

Acknowledging repeating alarms

You can still acknowledge a repeating alarm with one of the methods above but it will persist, sounding after the next repeat interval.

To halt and clear a repeating alarm, touch **Shift-C**.

If having to enter that correctly doesn't wake you up, nothing will.

For more HP41CX programs, visit <<http://www.inventors-emporium.co.uk>>

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Program Listing follows:



Line	Instruction	Comments
1	LBL "ALM"	
2	"9/1/89 V1.1"	
3	STO 00	Saves X Reg. for later recall
4	CF 22	
5	"RPT DELAY?"	Alarm sounder repetition rate
6	PROMPT	Enter 0.01 for one minute or R/S for none
7	FC?C 22	
8	CLX	
9	STO 11	
10	"DATE?"	Enter as DD.MMYYYY or enter R/S for the current date.
11	PROMPT	
12	FC?C 22	
13	CLX	
14	STO 12	
15	LBL 00	Test for input
16	"TIME?"	Enter as HH.MM (12 hour clock, negative numbers are PM)
17	PROMPT	
18	FC?C 22	
19	↑ GTO 00	If no entry, loop back
20	5.43	
21	"AM/PM?"	Touch the A or P key
22	← XEQ "QA"	
23	FS?C 05	
24	CHS	If key P is pressed
25	RCL 11	
26	RCL 12	
27	R^	
28	X<>T	
29	"MESSAGE?"	Enter a reminder to yourself
30	AVIEW	
31	AON	
32	CLA	
33	STOP	
34	AOFF	
35	XYZALM	Set alarm command
36	"ALM IS SET"	Confirmation if it worked
37	AVIEW	
38	RCL 00	Restore the X register
39	END	