# HISTORICAL CALENDAR OF WESTERN EUROPE
## A.D. 550 to 1970 (A.D. 1 to 2700)
### (Software by prof. Bernd Kratz, 1988)
### (Complete Guide by Demetris Loizos, 2022)



Back in 1988, Bernd Kratz completed and compiled two DOS based pieces of software (HC.exe and TC.exe) related to the Historical Calendar (HC) of various peoples and religions (mainly but not limited to the Julian/Old Style, Gregorian, Jewish, Muslim calendars). In the *Historical Calendar of Western Europe* he focused on the period between AD 550 and 1970 including all civic, religious and astronomical details of every month. Generally, though, his Historical Calendar (HC) can be used for the period between AD 1 and 2700 with basic month by month details. In the era of the Internet, some of the information included in the HC can be found on various individual sites but Kratz spent a lot of his time, put a lot of effort in his project and used his brains intensively to put together the variety of information included in the software. HC includes a wealth of accurate information that can be retrieved in fractions of seconds. Kratz tried to assist the user and added some help windows within the programs as well as a basic user guide that are both very useful but do not reveal the full potential of the software. These instructions are a step by step guide with screen shots that covers all aspects of the use of the *Historical Calendar of Western Europe*. The HC program is to be used for scholastic purposes, as a general day/month/year calendar of the Christian, Jewish, Muslim worlds, as well as for fun!

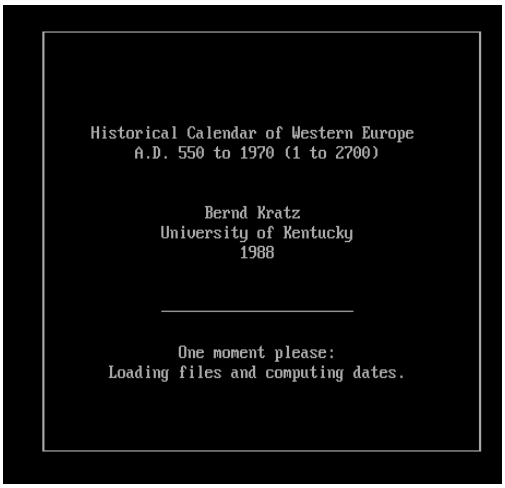
**Installation of HC.exe and TC.exe**

1. HC.exe and TC.exe are DOS based software but nowadays they can run on a variety of operating systems (e.g. Windows, Mac, Linux, RISC, Fedora, Solaris, BeOS, OS/2 etc) with the help of a DOS emulator.
2. So, before you use HC.exe or TC.exe, you must install the DOSBox emulator that can be downloaded from
https://www.dosbox.com/
3. After you install DOSBox, create a desktop link to it.
4. Unzip the Historical_Calendar.zip you downloaded in a folder and among the unzipped files there will be the two executable files: HC.exe and TC.exe. HC.exe is the main Historical Calendar program and TC.exe the Tables program.
5. Drag and drop HC.exe on the file link of DOSBox on your desktop for the Calendar program to run.

***A Complete List of Shortcut Keys will be found at the end of this guide***

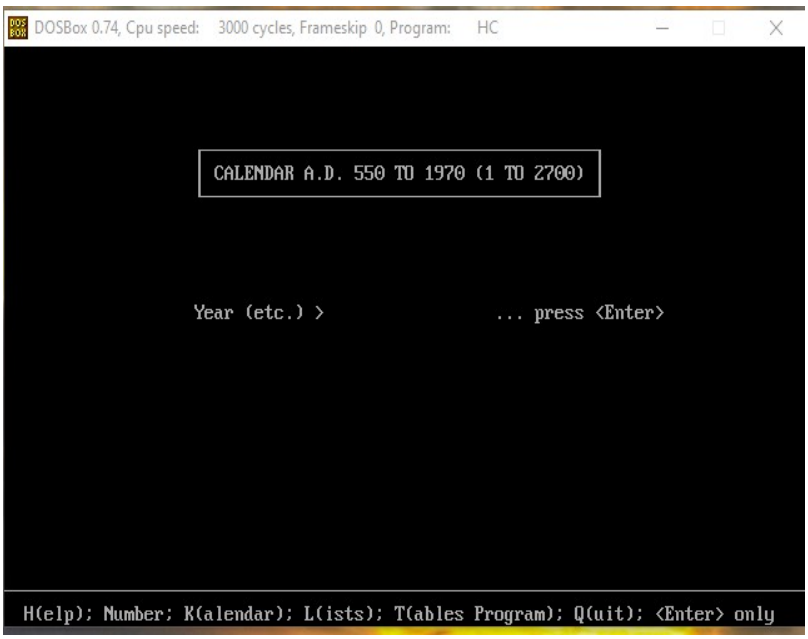
**Window by window Instructions of Use for the Historical Calendar (HC.exe) program**

**1. Splash Screen**



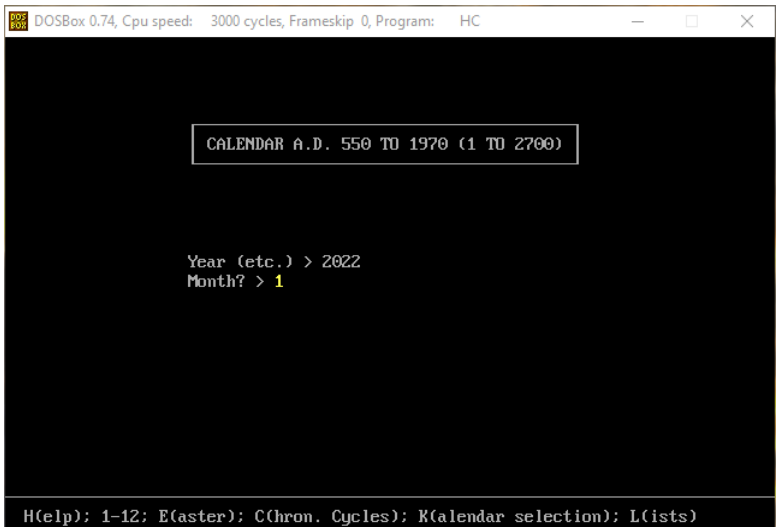

The splash screen appears and disappears quickly and you may not be able to see it before the initial Main Entry software window.

**2. The Main Entry Window (year prompt)**

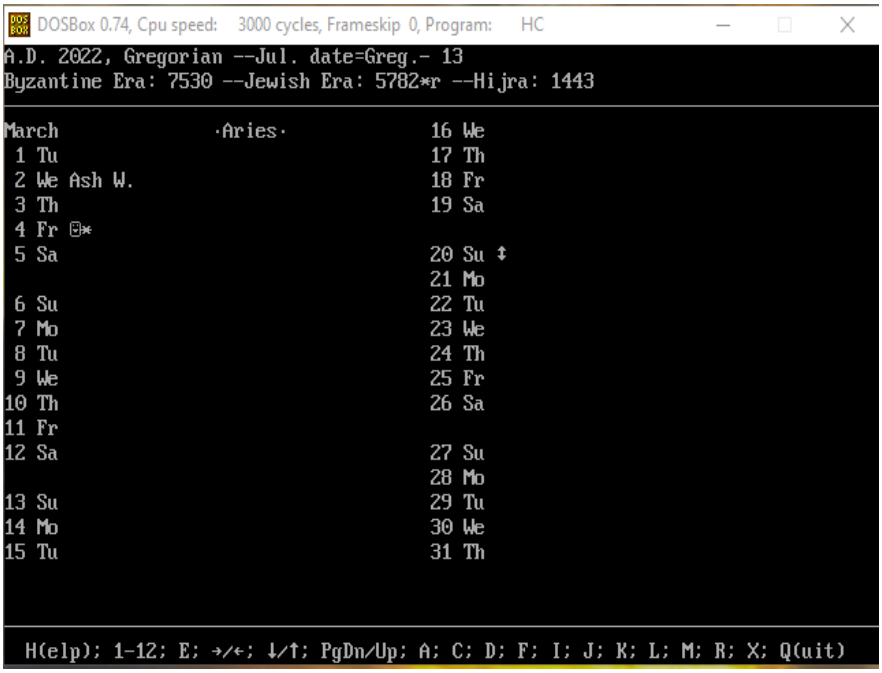



The Main Entry window prompts you to enter a year.
This year can be entered in a number of ways depending on what result you expect to get (see below).

Enter any number between 1 and 2700 and you are then prompted to enter a month number (1 to 12)




Tip: If at the month prompt you press E instead of a month number, then the year and the Easter month of that year is displayed.

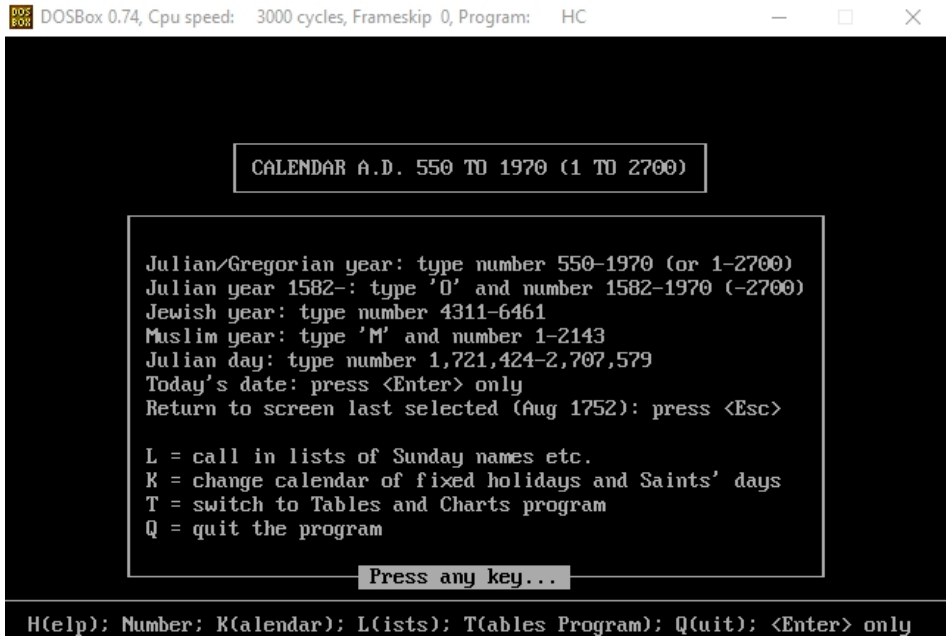



The full month of the year selected is displayed with the zodiac sign of that month and basic religious and astronomical information as the year selected is beyond the boundaries of AD 500-1970.
At the top of the window there is additional information. For the year (2022), the Julian calendar date can be calculated for a specific day if 13 days (number depends on the Gregorian year) are subtracted from each day displayed.
Example: Gregorian Calendar March 20 displayed is the Julian Calendar March 7 (20-13 = 7).
Also, the corresponding to 2022 Byzantine Era, Jewish, and Hijra (Muslim) years are displayed.

Tip: Any time you wish to return to the Main Entry window just press B or Space Bar or Q or Enter.

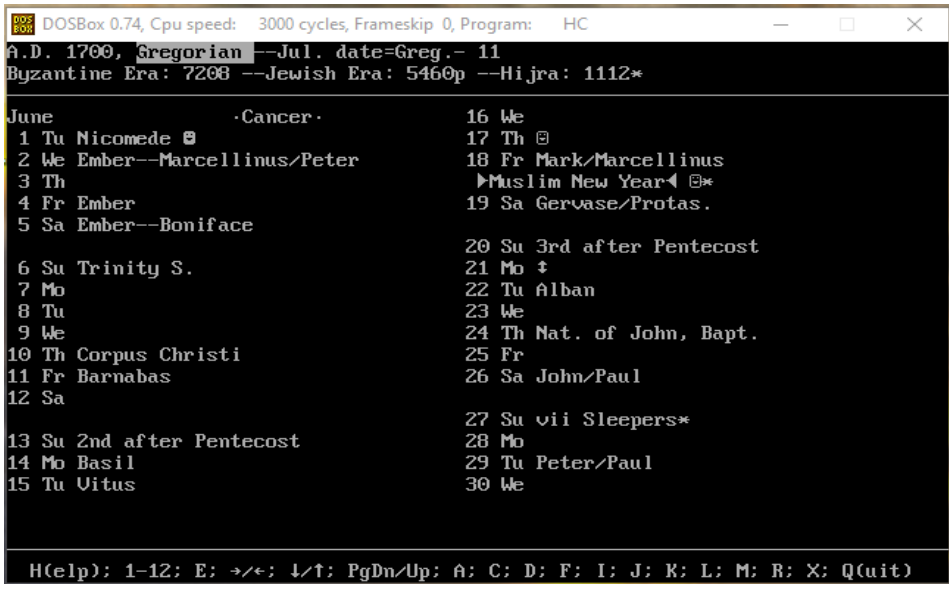
**The Main Entry window Choices**
At the bottom of the Main Entry window, the user is presented with a number of choices.


*H = Help*
Press H or F1 for the help window of the Main Entry window to show




The Main Entry Help window includes additional entry choices for the year window.

*Julian/Gregorian year: type number 550-1970 (or 1-2700)*
At the Main Entry window year prompt you may type any number between 1 and 2700 but full information will be displayed only for the years 500 to 1970. If your choice is between 1583 and 2700, at the top of the chosen month window the word Gregorian will follow the chosen year and it will be followed by the number of days that need to be subtracted for the respective Julian date to be calculated. The word Gregorian is highlighted for the years between 1583 and 1753 and indicates that not all western European countries had adopted the Gregorian calendar before 1753.
For the Gregorian Calendar adoption year of countries check:
https://en.wikipedia.org/wiki/Gregorian_calendar



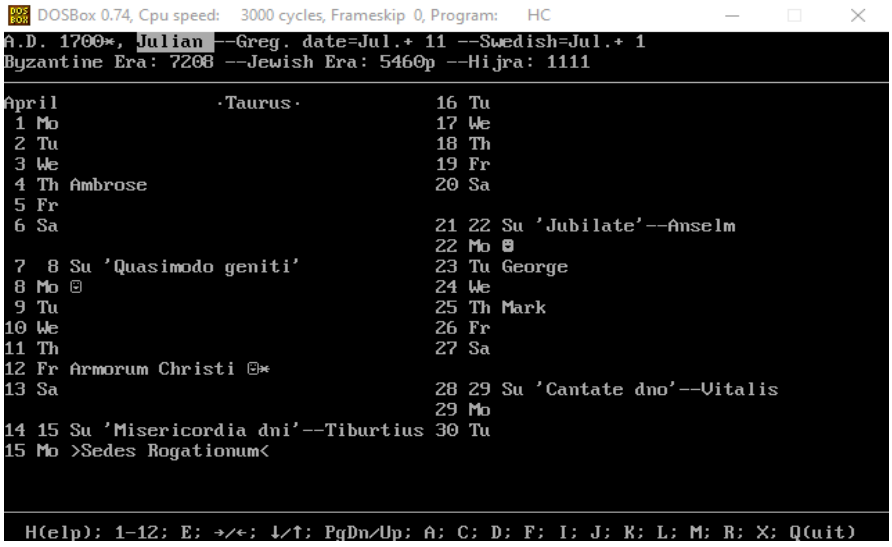

*Julian year 1582-: type '0' and number 1582-1970 (-2700)*

At the Main Entry window year prompt press '0' [zero] or letter 'O' and type a number between 1582 and 2700. The entry field will show “0.St.” before you type the year. After you type the year and the month of your choice the Julian calendar year and month will be displayed and the word Julian will be highlighted for the years between 1583 and 2700. The number of days that need to be added to the Julian dates displayed for the respective Gregorian calendar dates will be displayed at the top of the window along with information for other historical calendars.

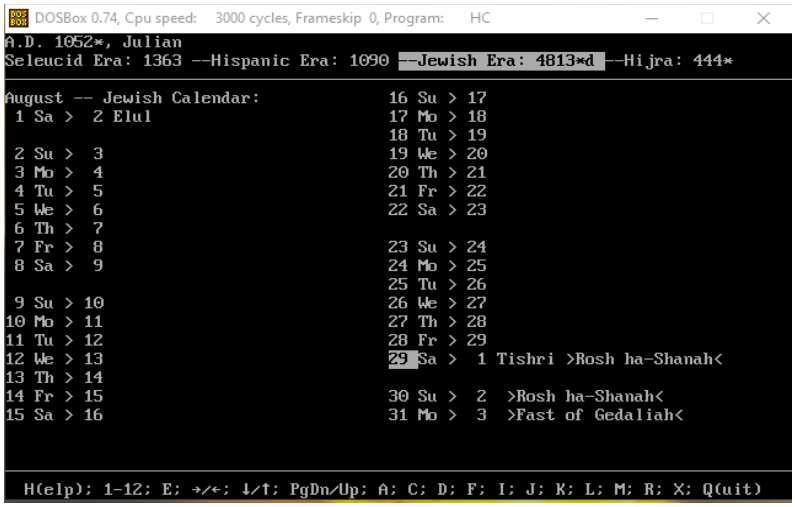
A.D. 1700* = An asterisk next to a year means that this is a leap year for the respective calendar displayed. In this case it is a leap year (February has 29 days) for the Julian Calendar but not for other calendars.

For the Julian calendar check:

https://en.wikipedia.org/wiki/Julian_calendar



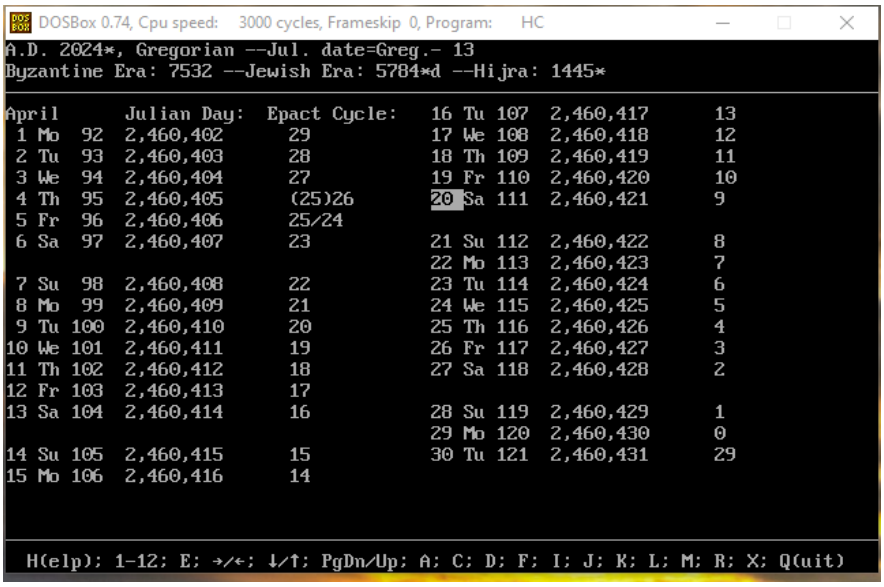
*Jewish year: type number 4311-6461*
At the Main Entry window year prompt type a number between 4311 and 6461 for the Jewish calendar of the current month to be displayed. The words Jewish Era and the year number are highlighted. Information for other calendars will be displayed at the top of the window. Alternatively, at the year prompt you may press 'J' and type a number between 4311 and 6461 with the same result.
Tip: Keyboard Direction Arrows = The left and right arrows will change month and the up and down arrows will change year in any calendar displayed.




Letters r, p, d behind Jewish year means that there are 354/384, 355/385, 353/383 days respectively in that year.

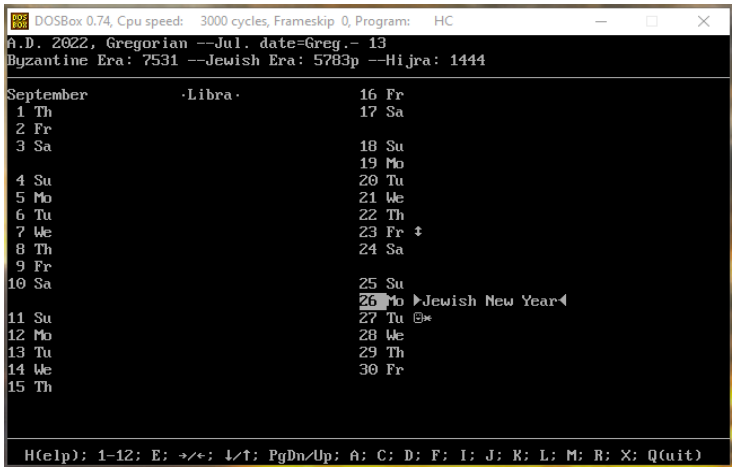
*Julian day: type number 1,721,424-2,707,579*
"The Julian day is the continuous count of days since the beginning of the Julian period, and is used primarily by astronomers, and in software for easily calculating elapsed days between two events (e.g. food production date and sell by date." The first set (1,721,424) is AD 1, January 1, and the other set (2,707,579) is 31 December 2700. In the year prompt you must enter all three numbers separated **by a comma, which may not be displayed while typing but it is required**. Also, the sequence of numbers must be a valid one.
For the Julian day calendar check:
https://en.wikipedia.org/wiki/Julian_day

For example, the sequence 2,460,421 corresponds to 20 April 2024.



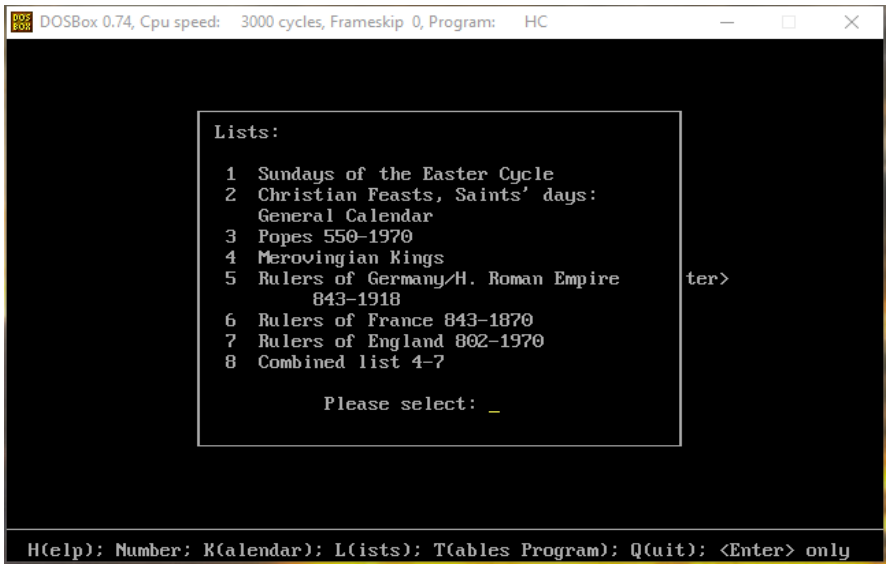

For the Epact Cycle check:
https://en.wikipedia.org/wiki/Epact

*Today's date: press <Enter> only*
If you just press Enter at the year prompt, the window that opens shows the current Gregorian calendar month and date (highlighted).

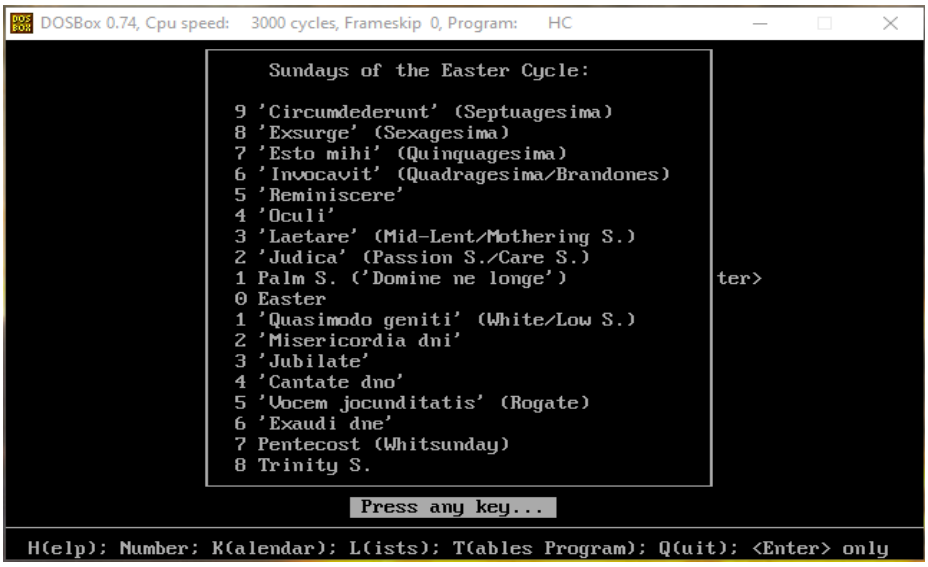



*Return to screen last selected (Aug 1752): press<Esc>*
In the calendar windows you may step back to the previous calendar window by pressing Esc. To return to the Main Entry window press B or Space Bar or Q or Enter.

*L = call in lists of Sunday names etc.*
Press L for a menu of 8 choices, lists of various kinds.
Tip: Press Esc to leave the Help window




*1. Sundays of the Easter Cycle*




*Press any key ...*
For the Byzantine/Orthodox Cycle

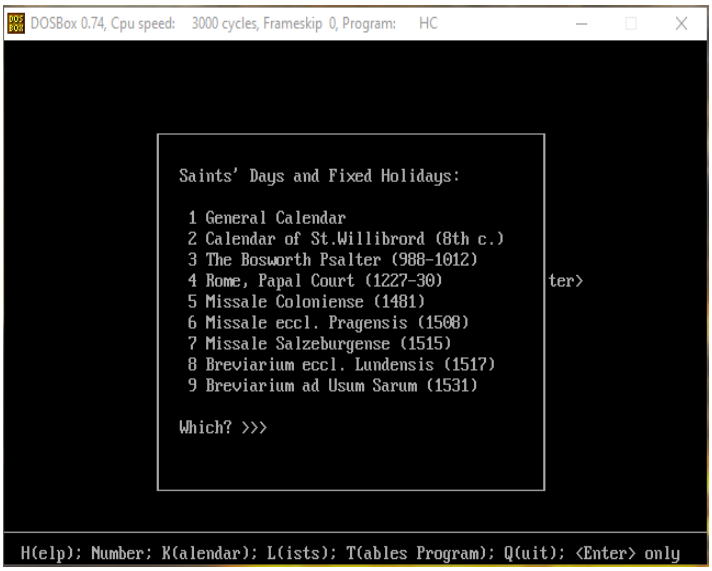

*Press any key ...*
to return to the Main Entry window

*2. Christian Feasts, Saints' days: General Calendar*


*Press any key ...*
will jump to the next part of the list until you reach December.

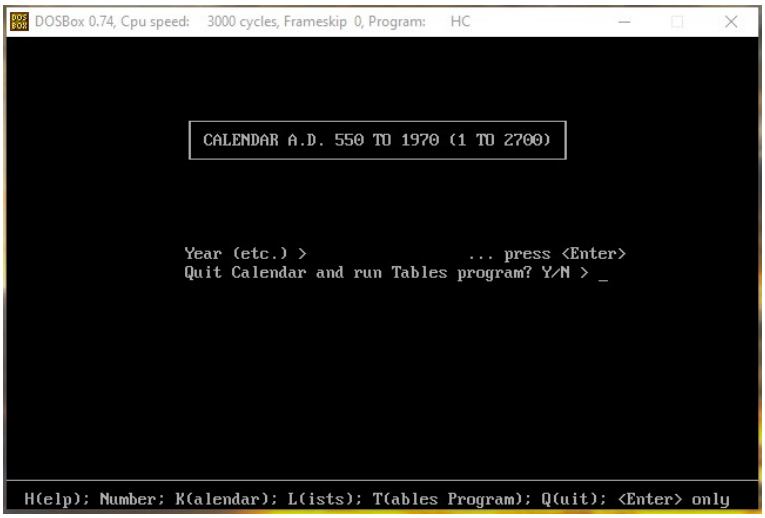
*3 to 8*
3 to 8 will show lists of names and years in office for the Popes, Merovingian Kings, and the rulers of Germany/Holy Roman Empire, France, England (all information is shown for the years between 550 and 1970).

*K = change calendar of fixed holidays and Saints' days*
Press K for a menu of 9 choices under the general title *Saints' Days and Fixed Holidays:*




After you make your selection (1 to 9), you are prompted to enter a year and month at the Main Entry window prompt and view the Saints' Days and Fixed Holidays for the selected year and month. This is valid only for the years between 550 and 1970.
Tip: The corresponding abbreviation ([Blank for selection 1], Willibrord, Bosworth, Rome, Cologne, Prague, Salzburg, Lund, Sarum) will display after the word Julian or Gregorian at the top of the month window (see below at «Example with year = 1795 and month = 1 and 5 pressed from the K menu»)

*T = switch to Tables program*
Press T to leave the Calendar program and load the Tables program. This is the TC.exe program (see the Installation section above).

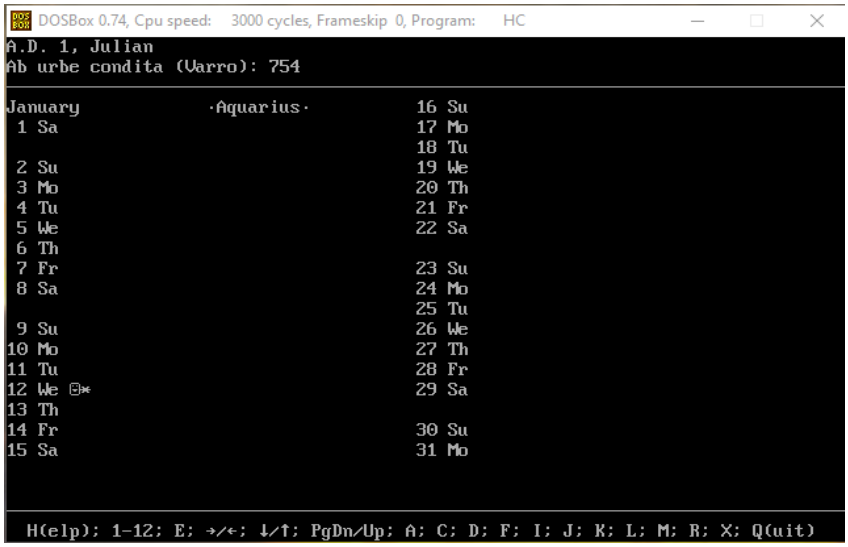



Press y to load the Tables (TC.exe) program (see separate guide below) or n to remain in the

Calendar program.

*Q = quit the program*
Press Q to exit the Calendar program,

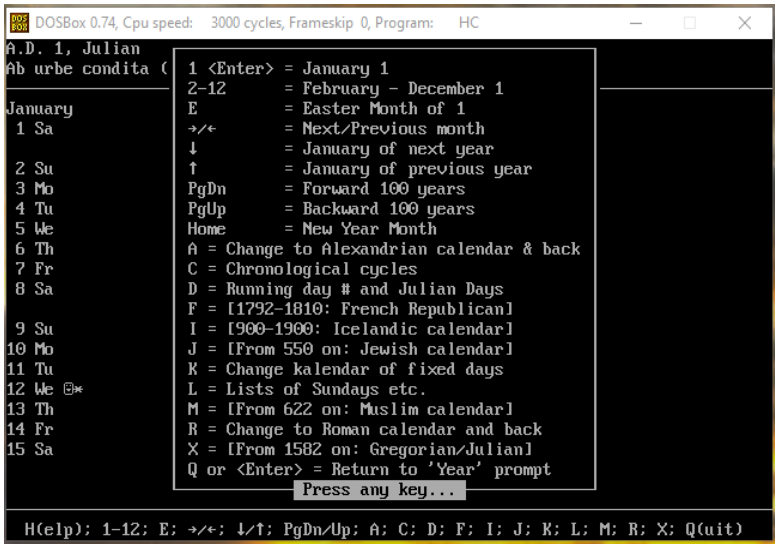
**3. Calendar Window**
Example with year = 1 and month = 1




The top part of the window displays the Julian year and the Roman calendar year (754) that corresponds to AD 1. The Roman calendar year is displayed until and included AD 549. The month window displays the days and the day names (abbreviated) of the month, the zodiac sign for the month and the new moon sign (face* symbol).

**The Calendar window Choices**
At the bottom of the Calendar window, the user has a number of choices.


*H = Help for the Calendar window*
Press H or F1 for the Calendar help window




In the Calendar window:
Press 1 and Enter to display January
Press any number between 2 and 12 to jump to the relevant month window
Press E to display the Easter month (March or April) of the displayed year
Press Right or Left Arrow to display the next or previous month of the year displayed
Press the Down or Up arrow to display the same month for the next or the previous year
Press the PGDN or the PGUP key to display the same month 100 years forward or backward
Press the HOME key for the New Year Month (not January for all calendars) of the calendar displayed

Press A for the Alexandrian (Coptic Orthodox Church) calendar. This is valid for AD 284 on.
Tip: return to/display the Gregorian/Julian month window with A or Esc.
For the Coptic calendar check:
https://en.wikipedia.org/wiki/Coptic_calendar

Press B or Space Bar or Q or Enter [Not displayed on the Help window] to return to the Main Entry window

Press C to display the chronological cycles of the Gregorian or Julian calendar. For the years 550 to 1970 the name of the Pope and the names of the rulers of France/Germany/England are displayed as well.
Tip: Press Right or Left Arrow to display the next or previous year chronological cycles
Press the PGDN or the PGUP key to display the chronological cycles 100 years forward or backward
Press C again or Esc to display the year and month viewed before pressing C

Press D for the display of the running day numbers, the Julian days, and the Golden Numbers/Epact cycles
Tip: return to/display the Gregorian/Julian month window with D or Esc.
For the Golden Numbers check:
https://en.wikipedia.org/wiki/Golden_number_(time)

Press F or I or J for the display of the French Republican, the Icelandic and the Jewish calendars

within the specified Gregorian calendar years.
Tip: return to/display the Gregorian/Julian month window with F or I or J respectively or Esc.

Press K for a menu of 9 choices under the general title *Saints' Days and Fixed Holidays:* (see details above)

Press L for a menu of 8 choices, lists of various kind (see details above)

Press M to display the Muslim calendar from AD 623 on.
Tip: return to/display the Gregorian/Julian month window with M or Esc.

Press Q or Enter or B or Space Bar [Not displayed on the Help window] to return to the Main Entry window

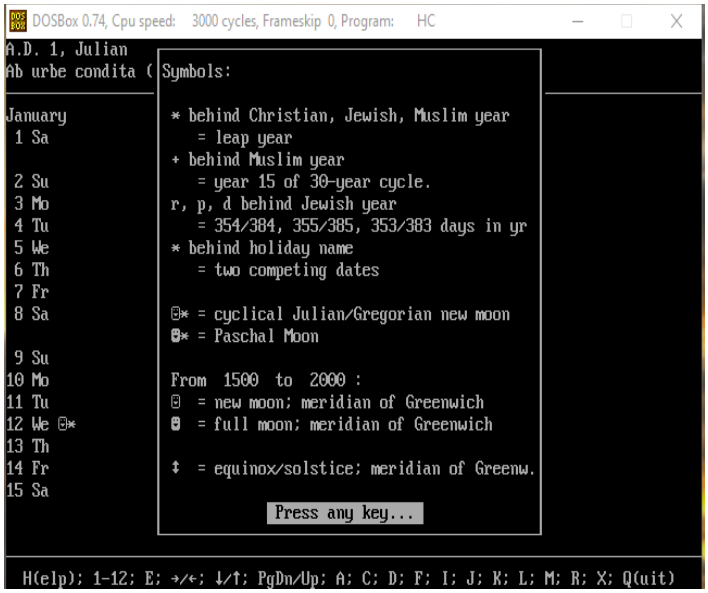
Press R to display the Roman or Roman style (depending on the year selected) calendar
Tip: return to/display the Gregorian/Julian month window with R or Esc.

Press S (displayed on certain month windows only). In years with two different Easter dates, you may change from the regular to the special sequence

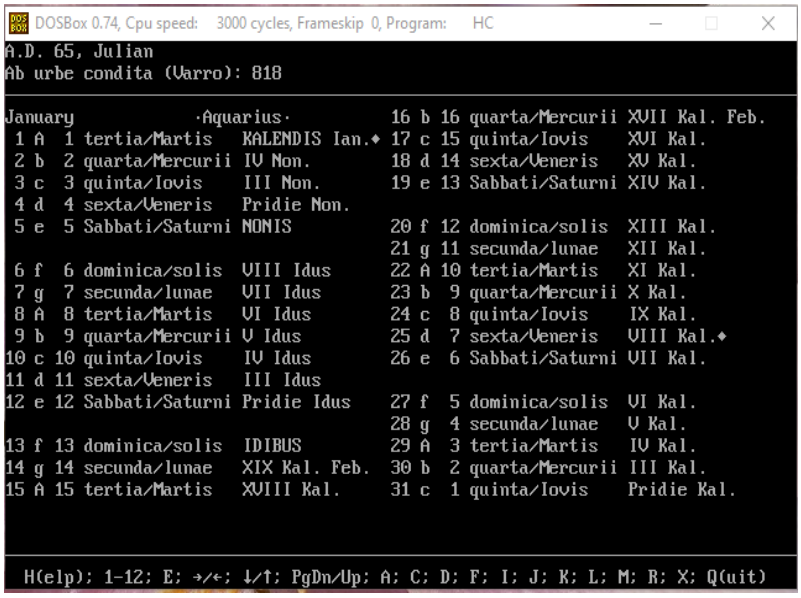
Press X to change between Julian and Gregorian calendar from 1583 on. Even while viewing the Jewish or Muslim or other calendar, by pressing X the corresponding date of the Julian and Gregorian calendar will be displayed.

Press F9 or F10 (- or + may also work on certain keyboards) for the on/off display of the full calendar of movable and fixed days of Christian feasts

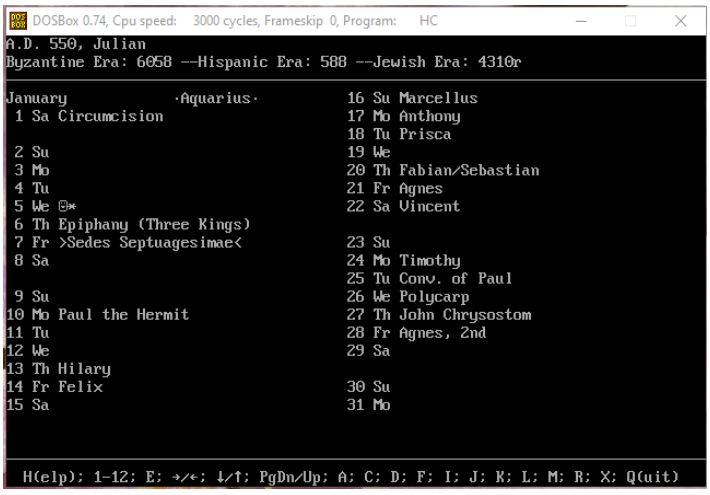
*Press any key …*
will display an additional help window with the symbols used in the Calendar window.



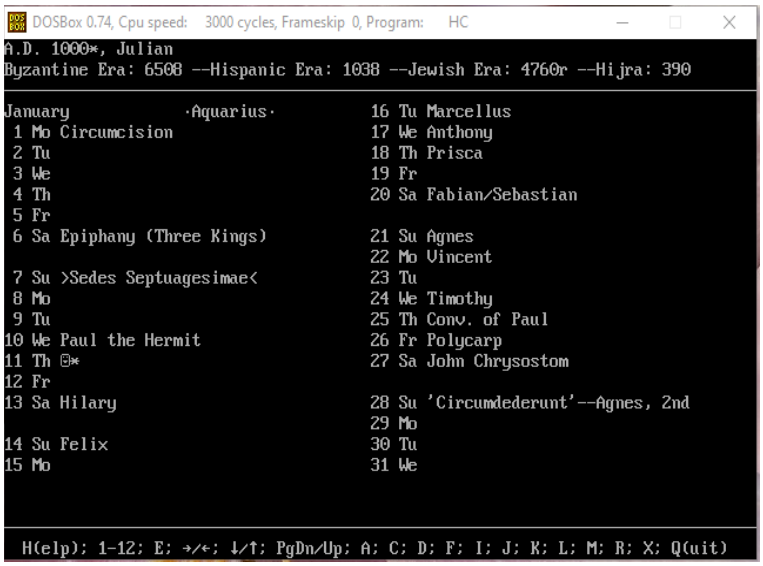
Example with year = 65 and month = 1 and R (Roman calendar) pressed



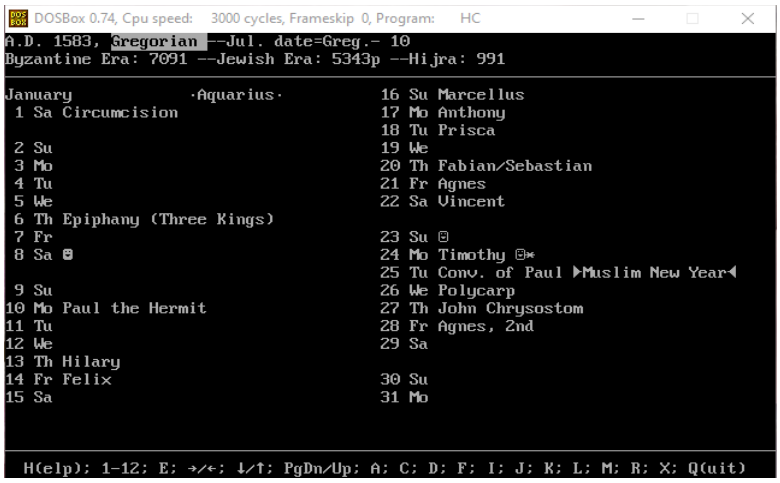

Example with year = 550 and month = 1 and F9 pressed



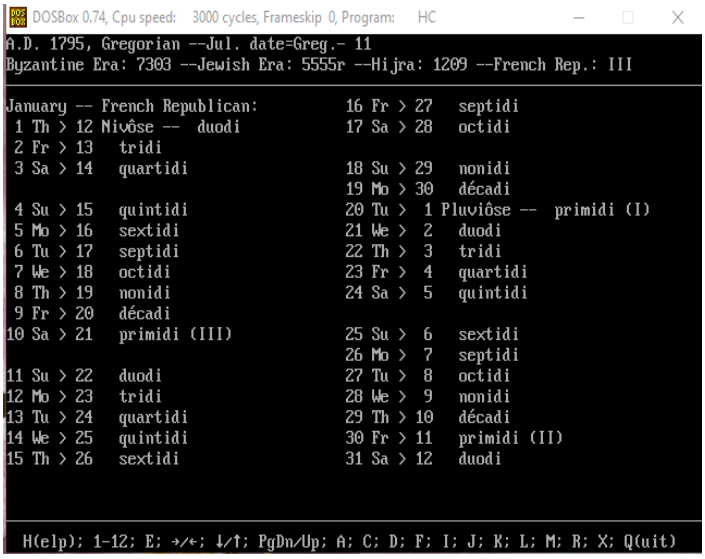

Example with year = 1000 and month = 1 and F9 pressed



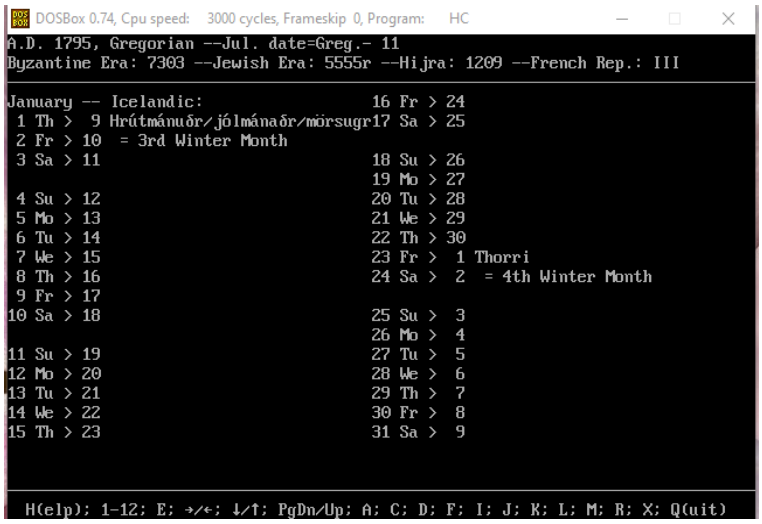

Example with year = 1583 and month = 1 and F9 pressed



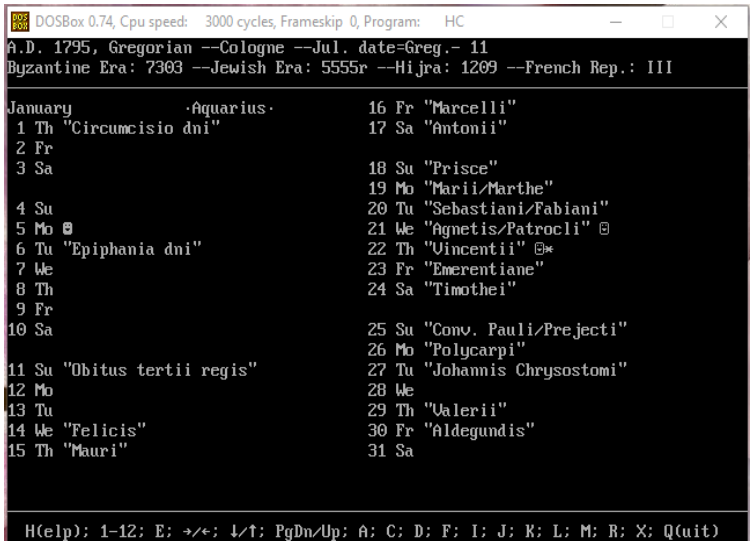

Example with year = 1795 and month = 1 and F pressed



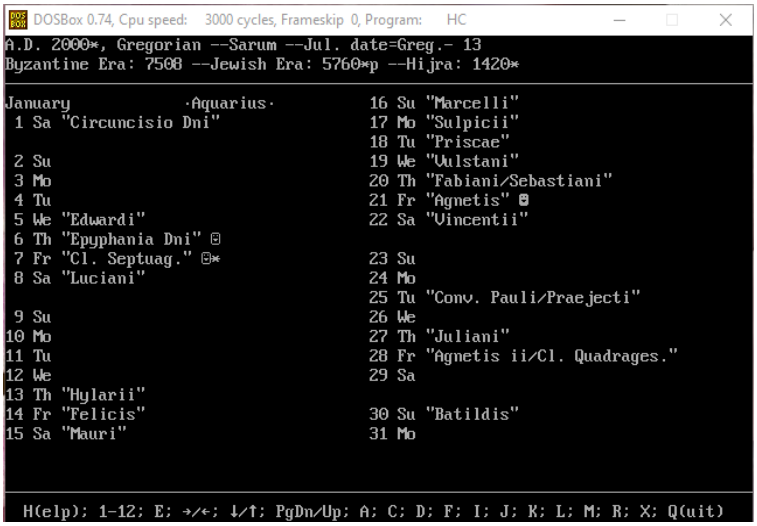

Example with year = 1795 and month = 1 and I pressed



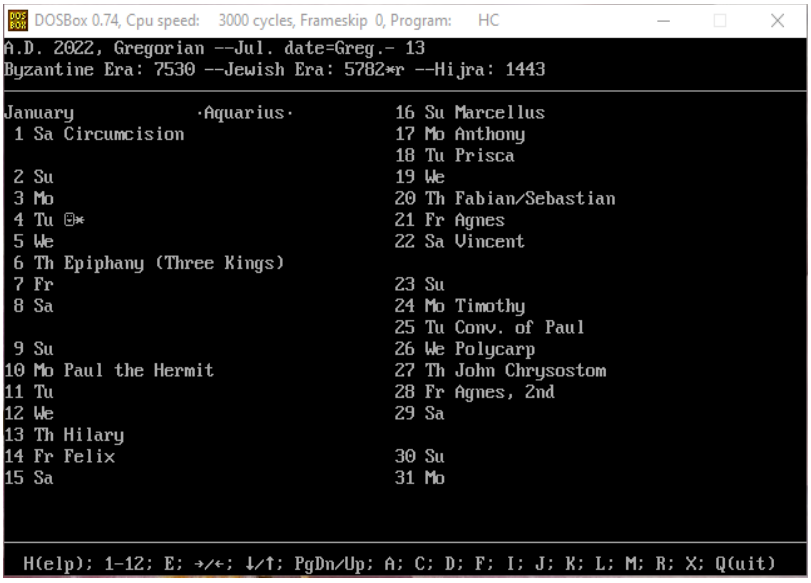

Example with year = 1795 and month = 1 and 5 pressed from the K menu (note the abbreviation “Cologne” at the top of the month window)



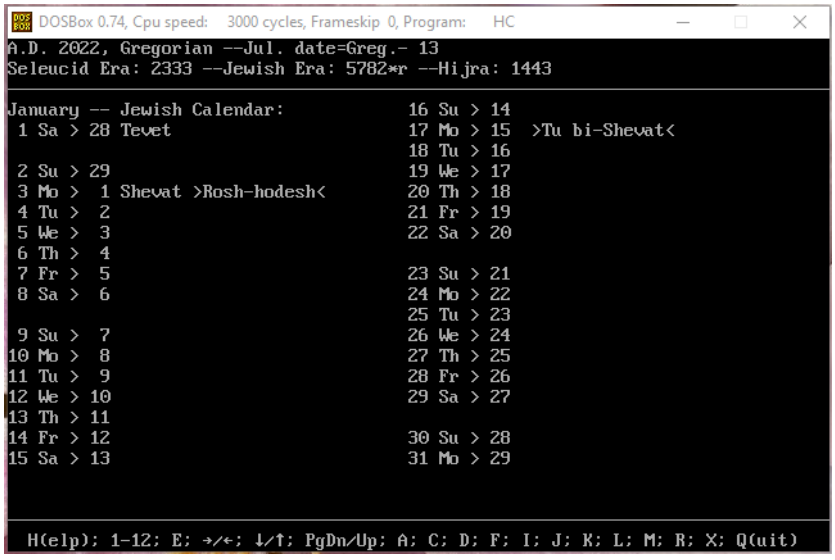

Example with year = 2000 (* = a leap year) and month = 1 and 9 pressed from the K menu (Sarum)



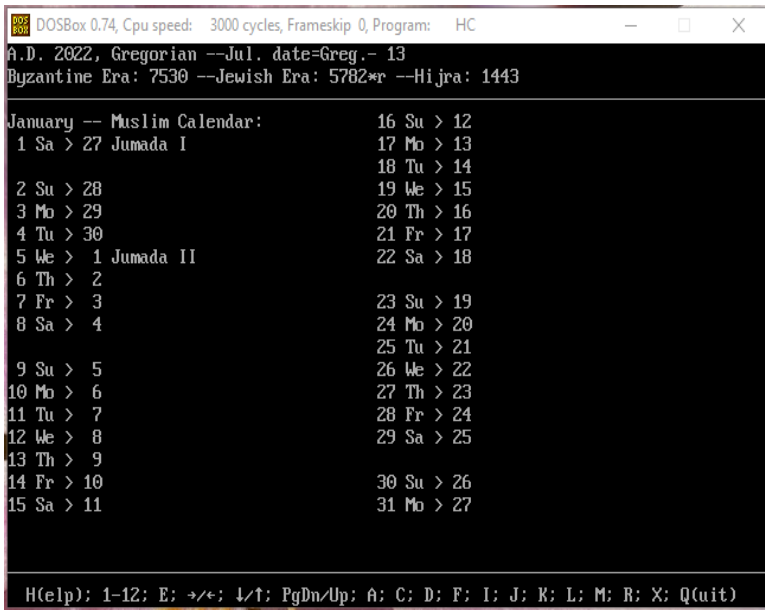

Example with year = 2022 and month = 1 and F9 or F10 pressed



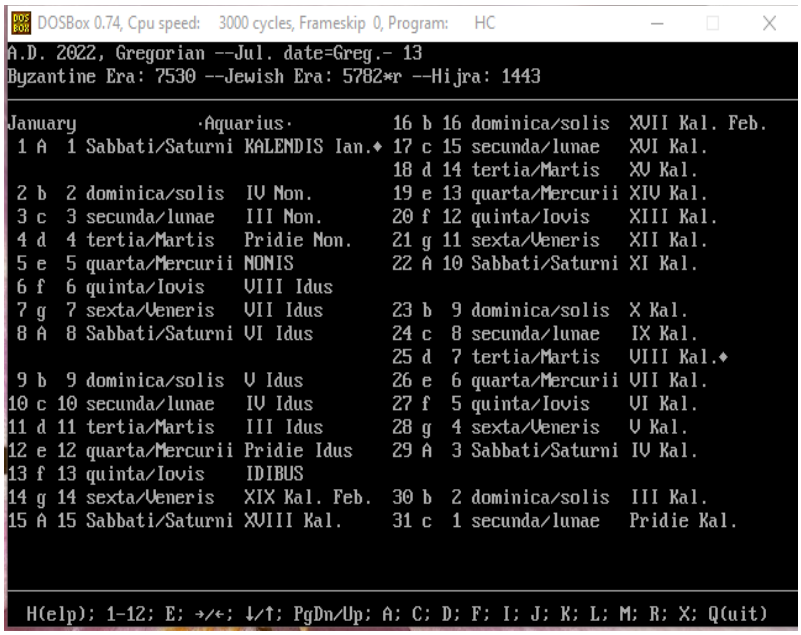

Example with year = 2022 and month = 1 and J (Jewish) pressed



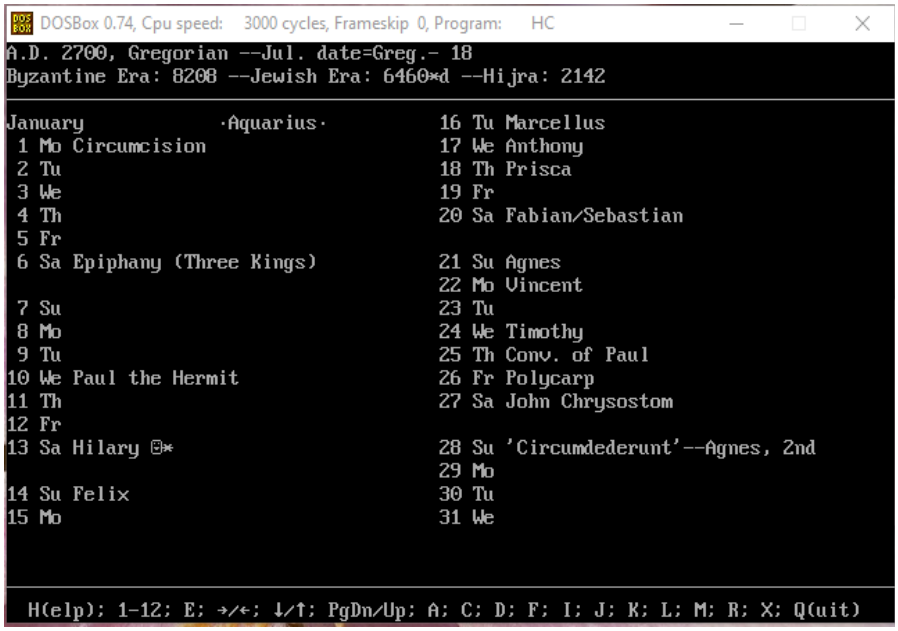

Example with year = 2022 and month = 1 and M (Muslim) pressed




Example with year = 2022 and month = 1 and R (Roman/Roman Style) pressed




Example with year = 2700 and month = 1 and F9 or F10 pressed



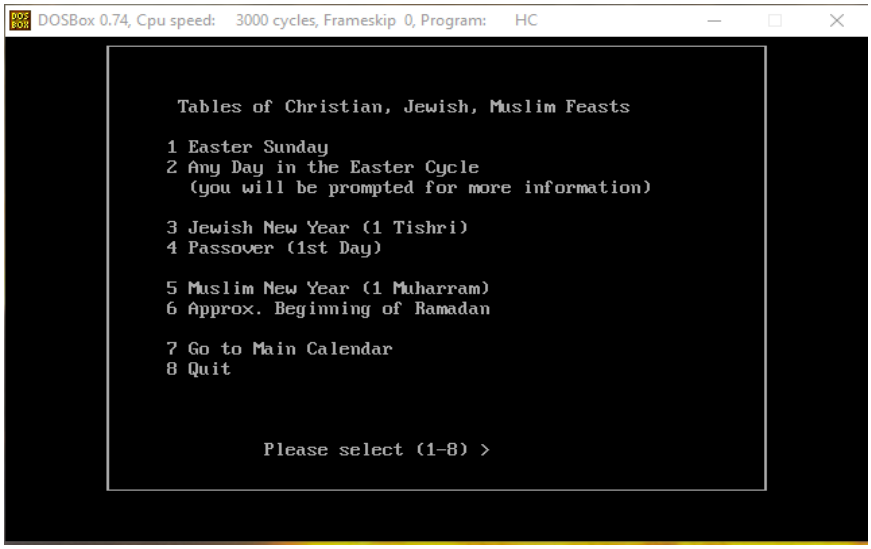

**Printing**

There is no printing function from within the program but there is a workaround to print any screen. Use the Snip and Sketch function of Windows 10 or 11 to cut the screen area of any Calendar/Tables window and print it.

For more versatility you may use for screen cutting and printing freeware IrfanView from: https://www.irfanview.com/

**Window by window Instructions of Use for the Tables (TC.exe) program**

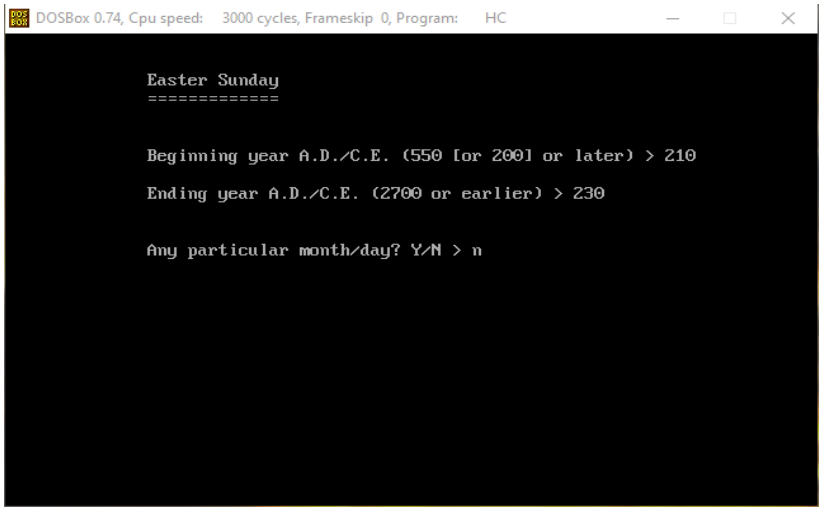
The Tables program includes a number of useful lists.



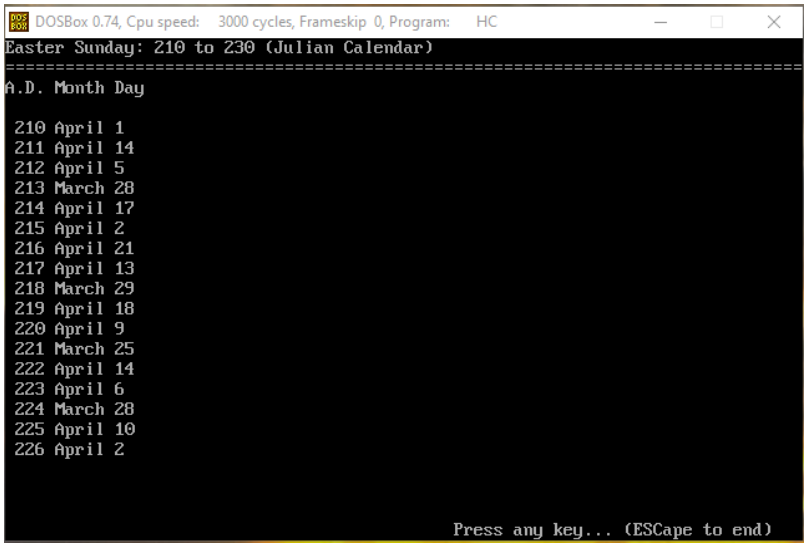

**Tables of Christian, Jewish, Muslim Feasts**

*1. Easter Sunday*

Press 1 and Enter to get to the next window of prompts and fill them in with your request.

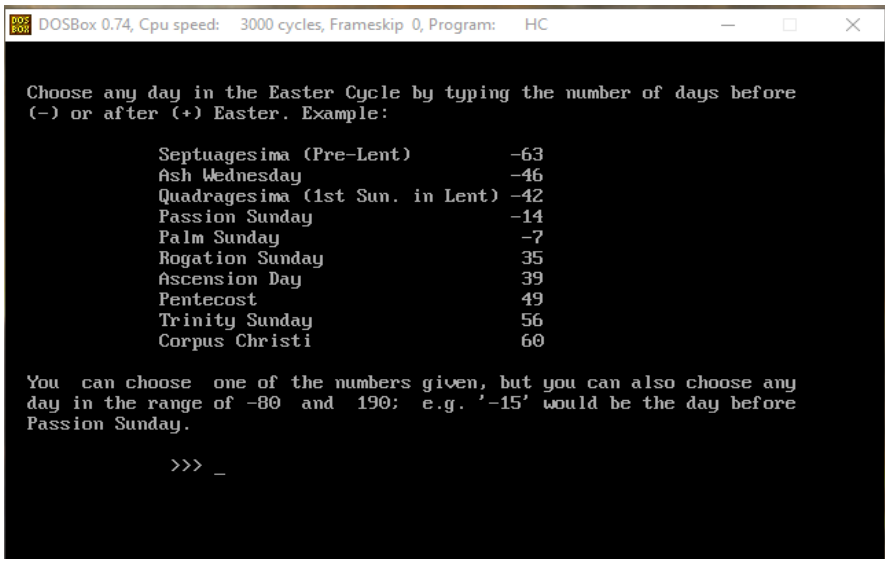



And get the results in one or more sequential windows



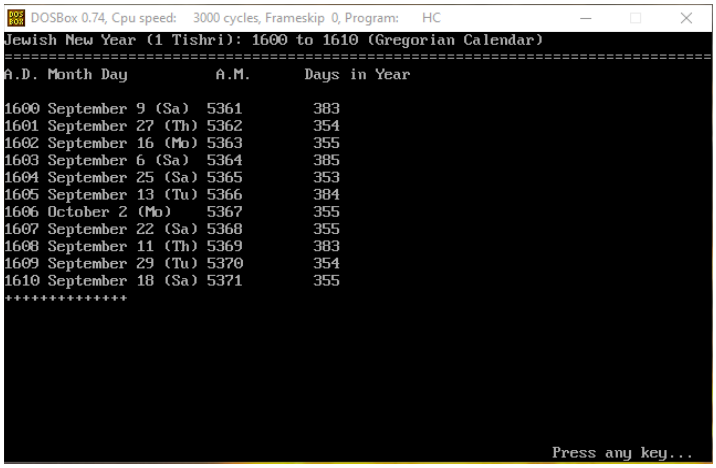

*2. Any Day in the Easter Cycle*

Press 2 and Enter and the next window gives all the information needed so that you enter the desired information at the prompt space.



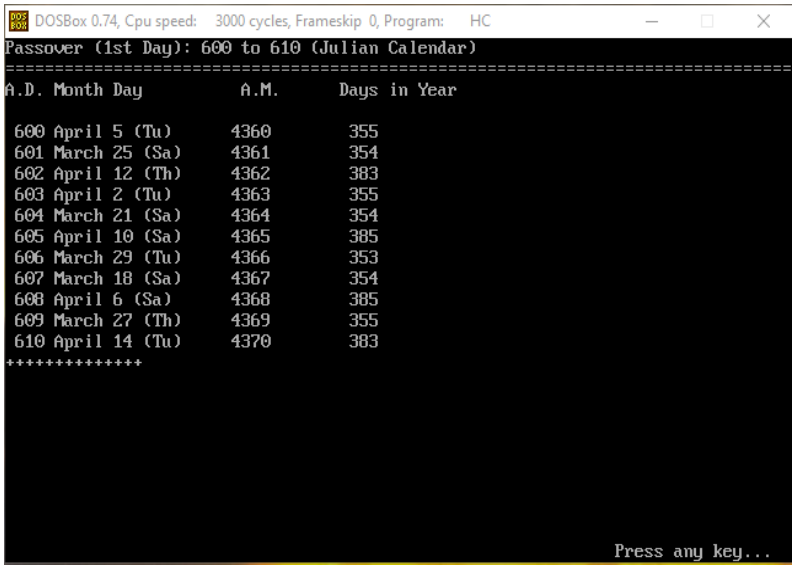

*3. Jewish New Year (1Tishri)*

Press 3 and Enter to fill in the next window the Beginning and Ending AD/CE years in order to get the results in the Jewish and the Julian or the Gregorian calendar in one or more sequential windows



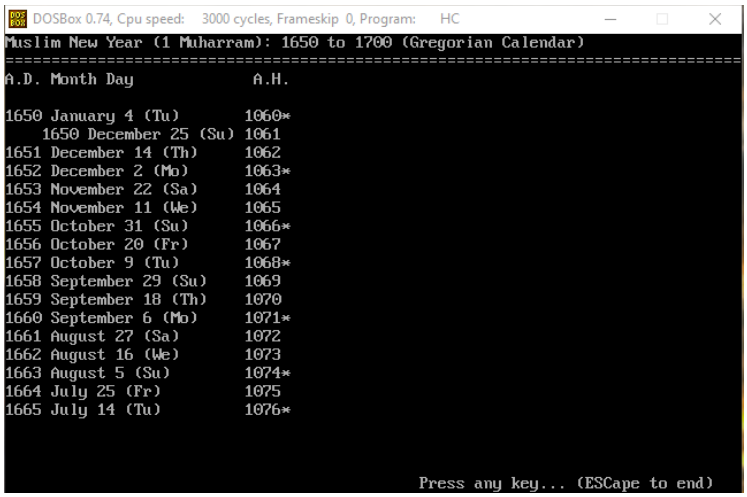

*4. Passover (1st Day)*

Press 4 and Enter to fill in the next window the Beginning and Ending AD/CE years in order to get the results in the Jewish and the Julian or the Gregorian calendar in one or more sequential windows



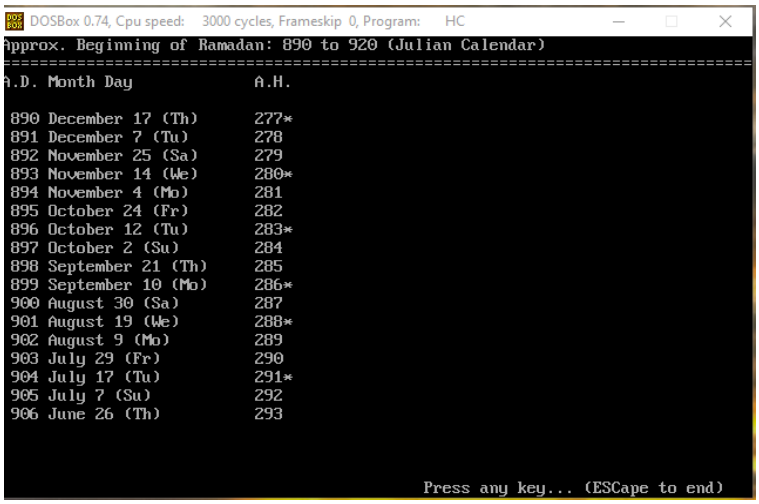

*5. Muslim New Year (1 Miharram)*

Press 5 and Enter to fill in the next window the Beginning and Ending AD/CE years in order to get the results in the Muslim and the Julian or the Gregorian calendar in one or more sequential windows




*6. Approx. beginning of Ramadan*

Press 6 and Enter to fill in the next window the Beginning and Ending AD/CE years in order to get the results in the Muslim and the Julian or the Gregorian calendar in one or more sequential windows




*7. Go to Main Calendar*
Press 7 and Enter to return to the Historical Calendar (HC.exe) program

*8. Quit*
Press 8 and Enter to quit the Tables & Charts (TC.exe) program and exit to DOS prompt.

## COMPLETE LIST OF SHORTCUT KEYS
## (Quick Reference)

| | |
|---|---|
| **F1** | **Help** |
| **Esc** | **Return to the previous window in the month window or leave a help window** |
| **R/L Arrow** | **Display the next or previous month of the year displayed** |
| **D/U Arrow** | **Display the same month for the next or the previous year** |
| **PGDN/PGUP** | **Display the same month 100 years forward or backward** |
| **HOME** | **Display the New Year Month (not January for all calendars)** |
| **Space Bar** | **Return to Main Entry window of the HC program** |
| **F9 or F10 / (- or +)** | **On/off display of the full calendar of movable and fixed days of Christian feasts** |
| **0** | **Enter before a year number for the Julian calendar year at the Main Entry year prompt** |
| **1 to 12** | **Choose month number (1 and Enter for January)** |
| **1 to 2700** | **Choose year number** |
| **A** | **Alexandrian (Coptic Orthodox Calendar)** |
| **B** | **Return to Main Entry window of the HC program** |
| **C** | **Chronological cycles** |
| **D** | **Running day numbers, Julian days, Golden Numbers/Epact cycles** |
| **E** | **Easter month** |
| **F** | **French Republican Calendar** |
| **H** | **Help** |
| **I** | **Icelandic Calendar** |
| **J** | **Jewish Calendar** |
| **K** | **Calendar choices for Saints' Days and Fixed Holidays** |
| **L** | **Lists of Christian Feasts, Popes, Rulers of France/Germany/England** |
| **M** | **Muslim Calendar** |
| **O** | **Enter before a year number for the Julian calendar year at the Main Entry year prompt** |
| **Q** | **Quit** |
| **R** | **Roman/Roman Style Calendar** |
| **S** | **In years with two different Easter date (displayed on certain month windows only)** |
| **T** | **Switch to the Tables program** |
| **X** | **Change between Julian and Gregorian calendar** |

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