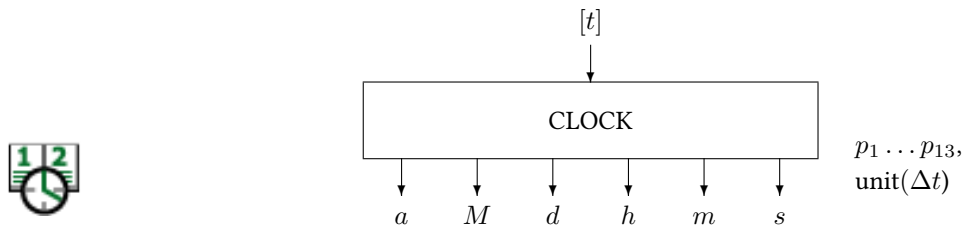


Block CLOCK

The CLOCK block generates date and time of the actual simulation time step with constant increment.



Name	CLOCK
Function	fb0024
Inputs	0 ... [1]
Outputs	6
Parameters	13
Strings	1
Group	T

Inputs

- 1 Output t of a predecessor (optional). Should the block defining the t signal be executed again after CLOCK has finished its operation, the CLOCK block performs a reset and starts again.

Outputs

- 1 Year a
- 2 Month M
- 3 Day d
- 4 Hour h
- 5 Minute m
- 6 Second s

Parameters

- 1 Start on year a_1
- 2 Start on month M_1
- 3 Start on day d_1
- 4 Start on hour h_1
- 5 Start on minute m_1

- 6 Start on second s_1
- 7 Stop on year a_2
- 8 Stop on month M_2
- 9 Stop on day d_2
- 10 Stop on hour h_2
- 11 Stop on minute m_2
- 12 Stop on second s_2
- 13 Increment Δt

Strings

- 1 Unit of the increment Δt , case sensitive, ie 'm' \neq 'M', for example
 - 'a' Years
 - 'M' Months
 - 'd' Days
 - 'h' Hours
 - 'm' Minutes
 - 's' Seconds

clock.vseit



The **CLOCK** block runs through two hours with a time step of 20 minutes. It starts on the February 28 at 23 o'clock and ends on Februray 29 at 1 o'clock. The result (year a , month M , day d , hour h , minute m and second s) is shown by a **SCREEN** block.

```

2012.  2.  28.  23.  0.  0.
2012.  2.  28.  23.  20. 0.
2012.  2.  28.  23.  40. 0.
2012.  2.  29.  0.  0.  0.
2012.  2.  29.  0.  20. 0.
2012.  2.  29.  0.  40. 0.

```

Remarks

- (1) Please note how the **CLOCK** block handles the time variables. The time, which is an output of the **CLOCK** block, remains constant during the whole time step, and is set to the start value of each time interval. The stop time 01:00:00 is given as a block parameter. The simulation time given by the start and stop time parameters is two hours in total. With a time step of 20 minutes this parameter setting results in six time steps, so that the **CLOCK** block starts at 23:00:00 and ends at 00:40:00—six time steps later.
- (2) Please observe that the stop time at 1 o'clock does not appear as output, since this would indicate a seventh time step and this would be wrong!
- (3) The **CLOCK** block handles midnight of a day—28 February 2000, for instance—as time 00:00:00 of the following day.

See also [Blocks GREGOR, JULIAN, DOW.](#)