# How to adjust VMS 5.5-2 system time For Daylight Saving Time (forward and backward)

## OVERVIEW

VMS 5.5-2 does not automatically know when daylight savings begins or ends; you must adjust the time as described in this article.

You can also change the time on an HSC with the command:

    SETSHO> SET DATE

Follow these steps to change the time on a VMS version 5.5-2 system:

1.  Enable privileges

2.  Stop processes as indicated below

3.  Set the time

4.  Restart processes

The following discussion applies to all VMS 5.5-2 systems, whether in a VAXcluster or not.


## BACKGROUND

Some layered products and VMS components use the system time to sort records and schedule events.  These include, but are not limited to, DECnet, the DECperformance Solution product set (DECps), VAX Software Performance Monitor (SPM) and VAX Performance Advisor (VPA).  Also affected by system time changes are those systems running the VAX Distributed Name Service (DNS) and the Digital Distributed Time Service (DECdts).

To check if a particular software application is time-dependent and therefore should be stopped before you change the time, refer to the documentation for that application.

The commands for stopping and restarting DECps, SPM, and VPA are included in this article.  A separate article titled "[DECdns] Changing System Time On DNS Server Systems" discusses changing system time on DNS server systems. That article can be found in the DNS database.

Systems running the Digital Distributed Time Service (DECdts), part of DECnet-VAX Extensions, should use DECdts to change the time.  You cannot use the DCL "SET TIME" command on a system running DECdts because DECdts disables this command and its system services.  If this is attempted, you receive the following errors:

        %SET-E-NOTSET, error modifying time

        -SYSTEM-F-IVSSRQ, invalid system service request

Please refer to the separate article in the VMS database entitled " "SYSTEM-F-IVSSRQ" Error From DCL "SET TIME" Command" for information about these errors and how to correctly set the time with DECdts.

These products should be stopped even if they are not actively collecting when you plan to change the time.  For example, you may have scheduled VPA data collections only for Monday through Friday, so it would be inactive when you change time over the weekend.  However, the data collector still checks periodically whether it should begin its data collections.

Print and batch jobs submitted with /AFTER=time will be delayed an hour if you set the time back.  If you set the time forward, for example from 2:00 to 3:00, all jobs with start times in that range will print or execute.

If you want to set the time forward, you do not need to stop the processes indicated below.  Verify your process privileges, and then set the time.

If you want to set the time back, verify your privileges, stop the processes, and then set the time.  Remember to restart the processes after the time is set.

## PREPARATION

1.  Your process must have both OPER and LOG_IO privileges to use the SET TIME command. To check the privileges for your process, use the command:

    $ SHOW PROCESS/PRIVILEGE

    If your process does not have these privileges but does have SETPRV privileges, enable the privileges with the command:

    $ SET PROCESS/PRIVILEGE=(OPER,LOG_IO)

2.  Stop SPM with the command:

    $ PERFORMANCE COLLECT=CAPACITY/STOP (node1,node2,...)

    or

    $ PERFORMANCE COLLECT=TUNE/STOP (node1,node2,...)

    You can stop collections on all nodes from any one node in the VAXcluster with the above command or remove the node specifications and use the command from SYSMAN with ENVIRONMENT set to CLUSTER.

3.  Stop VPA with the command:

    $ ADVISE/COLLECT/STOP

    You must issue this command on each node in the VAXcluster which is running VPA, or you can use

    SYSMAN with ENVIRONMENT set to CLUSTER.

4.  Stop the DECps data collector with the command:

    $ ADVISE COLLECT STOP/WAIT

    You must issue this command on each node in the VAXcluster which is running the DECps Data Collector, or you can use SYSMAN with ENVIRONMENT set to CLUSTER.  If you have other time-dependent applications on your system, you should stop them also.

    NOTE:  Some applications, such as Accounting and the Error Log, are not immediately affected by the time change.  They will still run, but the times recorded may result in inaccurate records. For example, if you set the time back, a user may have an Accounting record with a logout time earlier than the login time.

You are now ready to reset the time.

## PROCEDURE TO RESET THE TIME

First, reset the time.  Follow the instructions indicated for your type of system configuration. The formats for date and time are documented in the "VMS DCL Concepts Manual".

*Non-clustered system*

    1.  Change the time with the two commands:

        $ SET TIME=hh:nn:ss.cc

    If you need to change the date as well as the time, you can include that information in the same command:

        $ SET TIME=dd-mmm-yyyy:hh:nn:ss.cc

    2.  Restart processes as indicated below.

*VAXcluster*

    1.  Use the SYSMAN Utility to set the time for all nodes.  Issue

    the following command from any one cluster node:

        $ RUN SYS$SYSTEM:SYSMAN

        SYSMAN> SET ENVIRONMENT/CLUSTER

        SYSMAN> SET PROFILE/PRIVILEGE=(LOG_IO,SYSLCK)

        SYSMAN> CONFIGURATION SET TIME hh:mm:ss.cc

        SYSMAN> EXIT

    2.  Restart processes as indicated below.

## RESTART PROCESSES

1.  Restart SPM:

    $ PERFORMANCE COLLECT=CAPACITY/START (node1,node2,…)

    or

    $ PERFORMANCE COLLECT=TUNE/START (node1,node2,…)

    You can issue one command to start SPM on all nodes with the above command or eliminate the node specification and issue the command from SYSMAN with ENVIRONMENT set to CLUSTER.

2.  Restart VPA:

    $ ADVISE/COLLECT/START

    You must start VPA from each node in the VAXcluster, or issue the command from SYSMAN with ENVIRONMENT set to CLUSTER.

3.  Restart the DECps Data Collector:

    $ ADVISE COLLECT START

    You must start the DECps Data Collector from each node in the VAXcluster, or issue the command from SYSMAN with ENVIRONMENT set to CLUSTER.

4.  Restart any other applications.

## REFERENCES

For additional information, please refer to the: VAX/VMS Internals and Data Structures Manual, the VMS DCL Concepts Manual, the VMS DCL Dictionary, the VMS SYSMAN Utility Manual, DECnet-VAX: DECdts Management, the VAX SPM Reference Manual, and the VAX Performance Advisor User's Guide.