

11 System Generation

When your system is installed or upgraded, a DIGITAL-supplied command procedure, AUTOGEN.COM in SYS\$UPDATE, automatically sets the values of system parameters, the sizes of the primary page, swap, and dump files, and the contents of the default installed image list (VMSIMAGES.DAT in SYS\$MANAGER). AUTOGEN makes these adjustments after evaluating your hardware configuration and estimating typical workloads.

In many cases, AUTOGEN optimizes your new system when it is invoked during routine installation or upgrade procedures. You may therefore wish to monitor performance for a period of time before making further adjustments.

If (based on system performance and suggestions in the *Guide to VAX/VMS Performance Management*) you decide to modify some system parameters or change the size of a system file, you should perform such modifications with AUTOGEN rather than with SYSGEN, because AUTOGEN analyzes your modifications and adjusts any related parameters. Sections 11.1 through 11.5 describe AUTOGEN functions and usage.

There are, however, certain system modifications that you must perform using SYSGEN. These are described in Sections 11.6 through 11.14.

11.1 AUTOGEN Functions

AUTOGEN performs one or more of the following operations on an upgraded or newly installed system:

- Collects two types of data:
 - 1 Hardware configuration characteristics.
 - 2 Current values of SYSGEN parameters. Four sets of values (listed in Tables 11-5 through 11-8 at the end of this chapter) are collected in the files OLDSITE1.DAT through OLDSITE4.DAT in SYS\$SYSTEM and conditionally written to SYS\$SYSTEM:PARAMS.DAT. (For detailed descriptions of SYSGEN parameters, refer to the *VAX/VMS System Generation Utility Reference Manual*.)
- Calculates appropriate new values for significant SYSGEN parameters (listed in Table 11-9) and sizes for the system page, swap, and dump files
- Resets system parameter values and file sizes if necessary
- Optionally shuts down and reboots the system

You should carefully examine the PARAMS.DAT file that AUTOGEN creates at your site during routine installation or upgrade procedures to determine whether

- AUTOGEN has drawn the correct conclusions about your hardware configuration.
- The system parameter values shown are appropriate for your workload requirements.