



## AN-12 (Line Printer and Easy Print Modes)

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### HOW TO USE JOB STATUS REPORTING

Job Status Reporting is used to assure the application that data delivered to the printer was printed without some detectable errors such as paper out or user cancellation.

In Line Printer mode, each print job to be monitored begins with an “ESC s n” command, where the “ESC s” marks the start of the print job, and bit fields within ‘n’ specify the level of error reporting. The end of the print job is marked by an “ESC e” command.

In Easy Print mode, a global parameter JOBSTATUS is added which turns ON all job status options (same as Line Printer ESC e s with the bitfield in s set to turn ON all available reports- but not cancel timeout). This option for Easy Print can also be configured to be ON so the JOBSTATUS does not need to be sent with each print job and can be used with the emulations.

When Job Status Reporting is turned ON, any of several errors such as paper out, timeout, or user cancellation can automatically reported to the host immediately upon detection without the need to query the printer. In addition, the printer will automatically send the status when the last print line or FormFeed within the Line Printer start/end markers or the Easy Print job is complete.

The Automatic Job Status response string is the same as the string returned when the “Status Query” is sent (ESC{ST?}), however some of the data returned is event data and therefore appropriate only for the Job Status reporting and is so noted below. Even while the Job Status reporting is in effect, the “Status Query” can be sent to retrieve current status.

In Line Printer mode, the n in ESC s n is a bit field where individual features can be turned ON. In Easy Print mode, all options are turned ON automatically. The definition of the bit field is as follows:

- bit 0 = if set auto report status at end of job
  - Line Printer - when last line/FormFeed before ESC e is complete
  - Easy Print – at end of the current print job
- bit 1 = if set auto report status if paper out during print job
- bit 2 = not used (impact printers only)
- bit 3 = not used (impact printers only)
- bit 4 = if set auto report status if unit times out during print job (e.g. paper remained out too long)
- bit 5 = if set auto report if red button is pressed during print job (to cancel print)
- bit 6 = if set cancels timeout so printer will always stay ON temporarily until end of this job
- bit 7 = zero (reserved)

Note: In line printer mode, if the n bit field contains all zeroes then all existing print job status reporting flags set are cancelled

Note: In line printer mode, bit 6 for canceling timeout is treated differently than the ESC t command, also used to cancel timeout. If either or both are set to cancel timeout, the printer will not “go to sleep” Whichever command was used to cancel the timeout must be used to restart the timeout. If there is a paper out condition while the timeout is cancelled, the printer will remain awake while the paper out condition remains. If bit 1 is set, the printer will report the paper out condition to the host. When paper is reloaded, if bit 3 is set or if bit 0 is set, the printer will report that paper has been reloaded. At that point, all reporting flags are cleared (as if ESC s 0x00 had been sent, or the ESC e had been processed). In addition, if the timeout was cancelled using ESC t n or ESC s n, the timeout is restarted. The paper out condition will cause ALL data that has been received to be flushed and the printer begins anew when paper is reloaded.



The form of the Automatic Job Status string and the Status Query response string is:

{ST!E:N;S:I;L:D;P:P;J:N;R:40;B:O}

Where:

E is syntax/language error (more appropriate for the ESC{ST?} query response than the automatic Job Status Reporting)

- N - none

S is status which shows the current or transitional state of the printer and can take the following values

- The following values are returned for the Job Status as well as the ESC{ST?} status query
  - I – Idle
  - P – Printing
- The following values are returned only when the automatic Job Status reporting is active
  - T - Timeout
  - K – Key pressed to cancel job during printing
  - C – Complete (automatic Job Status Reporting print job finished normally)
  - E – Error in completing print job – typically this means that the QMARK was found before the current image had completed printing (paper was not aligned before printing began)
  - nofm – for Quantity Easy Print or emulation print jobs. Indicates that the nth image of a total of m images has printed. For example, when the 1<sup>st</sup> image of 10 has printed, this field will be 1of10. When the 2<sup>nd</sup> job has printed, this field will be 2of10 etc.

L is Lever Position (Thermal Printer Only)

- D – Down (note that the LP3 does not have a lever sensor and will always report Down)
- U - Up

P is Paper

- P – Paper is present
- N – No paper (paper out)

R is remaining buffer size in bytes

B is battery status

- O – OK
- T – out of temperature range or no battery (not on 4t)
- V – out of voltage range