Media Source Command

The Paper (Media) Source command (ᴇc&l#H) for the DeskJet 1600C uses a value of 5 for its optional sheet feeder and also supports a value of 7 (autoselect). A value of 7 selects the current printer default source. The user, through the application, may select a particular tray for the first page or pages (for example, a fancy cover page), then choose autoselect to pull paper from a default tray (for example, containing standard paper). This is different than option 0, which continues printing from the currently selected source. The "default" source may be user-selected, or based upon the printer's own algorithm.

Compression Method Command

The Compression Method command (ᴇc*b#M) for the DeskJet 1600C supports Method 9 compression (compressed replacement delta row encoding) in addition to compression methods 0, 1, 2, 3, and 5.

Method 9 (Replacement Delta Row Encoding)

Like Method 3, this method replaces only bytes in the current row that differ from the preceding (seed) row. Unlike Method 3, the replacement (delta) bytes may be encoded.

The replacement byte string (delta compression string) consists of a command byte, optional offset bytes, optional replacement count bytes, and the replacement data.

Command Byte	Optional Offset Bytes	Optional Replacement Count Bytes	Data Bytes

The command byte itself has three parts:

Control Bit	Offset Count	Replacement Count

- **Control Bit.** Determines whether the replacement data is compressed, and also the bit boundaries of the command byte's other two fields.
- **Offset Count.** The left offset (number of bytes) the replacement data is offset from the current byte position in the seed row.
- **Replacement Count.** The number of consecutive bytes to be replaced. One more byte than the replacement count is replaced (for example, 6 bytes are replaced by a replacement count of 5).

Like compression method 3, the "current" byte follows the last replacement byte; at the beginning of a row, the current byte immediately follows left raster margin. An offset of 0 indicates the current byte; an offset of 1 indicates the byte following the current byte.

The size of the offset count and replacement count fields depends on the value of the control bit.

CONTROL BIT = 0

7	6 3	2 0
Control Bit = 0	Offset Count	Replacement Count

If the control bit is 0, the replacement data is uncompressed. If the control bit is 0, bits 0-2 indicate the replacement count and bits 3-6 indicate the offset count.

If the offset count is 15, an additional offset count byte follows and is added to the total offset count. If the offset count byte is 255, another offset count byte follows. The last offset count byte is indicated by a value less than 255.

If the replacement count is 7, an additional replacement count byte follows and is added to the total replacement

count. If the replacement count byte is 255, another replacement count byte follows. The last replacement count byte is indicated by a value less than 255. One more than the total replacement byte count will be replaced.

CONTROL BIT = 1

7	6　　　　　5	4　　　　　0
Control Bit = 1	Offset Count	Replacement Count

If the control bit is 1, the replacement data is run length encoded. the bit boundaries are different than if the control bit is 0: bits 5-6 contain the offset count, and bits 0-4 contain the replacement count. As when the control bit is 0, optional offset bytes and replacement bytes may be added.