

Clock Events from Bits

Local application

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Each system maintains a bit array of 256 clock event occurrences that is updated at the beginning of each 10–15 Hz cycle. A local application called `EVTS` allows reflecting states of status bits as clock events.

The parameters for the local application are as follows:

```
E LA PARAMS          03/27/98 0829
NODE<0614>  NTRY<36>/64  H<0508>
NAME=EVTS   CNTR=60  DT= 0    MS
TITL"EVENTS FROM BIT STATUS  "
SVAR=00031C4C    03/26/98 1618
ENABLE  B<00C7> *EVTS ENABLE
SPARE   <0000>
STBIT#1 B<80B0>
EVENT#1 <0085>
STBIT#2 B<80B1> *
EVENT#2 <0086>
STBIT#3 B<0000>
EVENT#3 <0000>
STBIT#4 B<0000>
EVENT#4 <0000>
```

Up to four (Bit#, Event#) parameter pairs may be specified. (For those not being specified, set both the State/Bit and Event parameters to 0000.) In the State/Bit parameter, the sign bit is used to hold the bit state for which the following event# is to be established. In this test example, if Bit 00B0 is a "1", then set clock event 85. (Clock events are always referred to in hexadecimal.) If Bit 00B1 is a "1", then set clock event 86. The "setting" of a clock event is done by setting a bit in the clock event bit array. Early in the following 10–15 Hz cycle, such software clock events will be cleared when the bit array is updated. Clock event status as recorded in the bit array lasts for only one cycle.

Although this LA was written for systems that do not include clock event decoding hardware, this implementation can also be used for those systems that do have such decoding hardware. In such cases the events to be set should probably not be ones that may occur on the clock signal. Some clock events may be decoded from the clock signal, and others may be derived from status bit readings.

LAs normally run late in Data Access Table processing, before the fulfilling of any active data requests for which replies are due in the current cycle. For this reason, such clock event settings may be of use only for LAs that execute after `EVTS`—follow it in the LA table sequence of entries—or for fulfilling clock event-based data requests. They could also be used by a page application.