

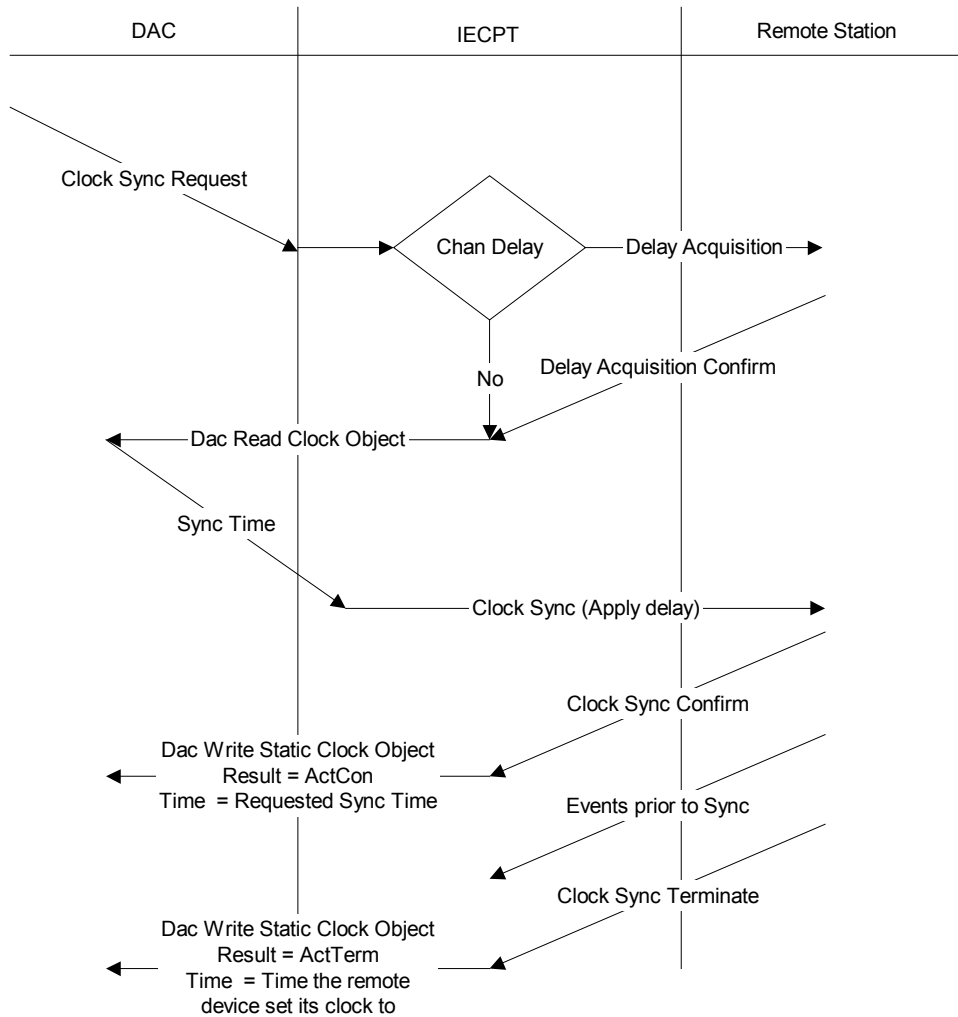


Applied Systems Engineering, Inc.

**Technical Note 25**  
**IEC Master Clock Sync**

## About Clock Sync Processing

The IECPT obtains the time used in the clock sync request by reading the DAC clock object. This time must be adjusted to account for any transmission delays. This adjustment can be done in one of two ways. First the IECPT can determine the adjustment by using the Channel Delay ASDU. Setting the DAC\_REQ\_MODIFIER\_CHAN\_DELAY in the clock sync request triggers this. If this modifier is present the IECPT initiates the following exchange with the remote station.



If the DAC clock sync request specified the modifier DAC\_REQ\_MODIFIER\_CHAN\_DELAY the IECPT transmits a Delay Acquisition ASDU to compute an adjustment to the DAC clock sync time. If the modifier is not specified no delay acquisition ASDU is transmitted. The user application must compute the delay when the DAC clock is read. To transmit the clock sync ASDU the IECPT calls the DAC read service on the DAC clock object (OBJ = DAC\_OBJ\_CLOCK). The response to this read is the sync time (adjusted in the Delay Acquisition ASDU is not used). The IECPT encodes this time into a Clock Sync ASDU and transmits it to the remote station.