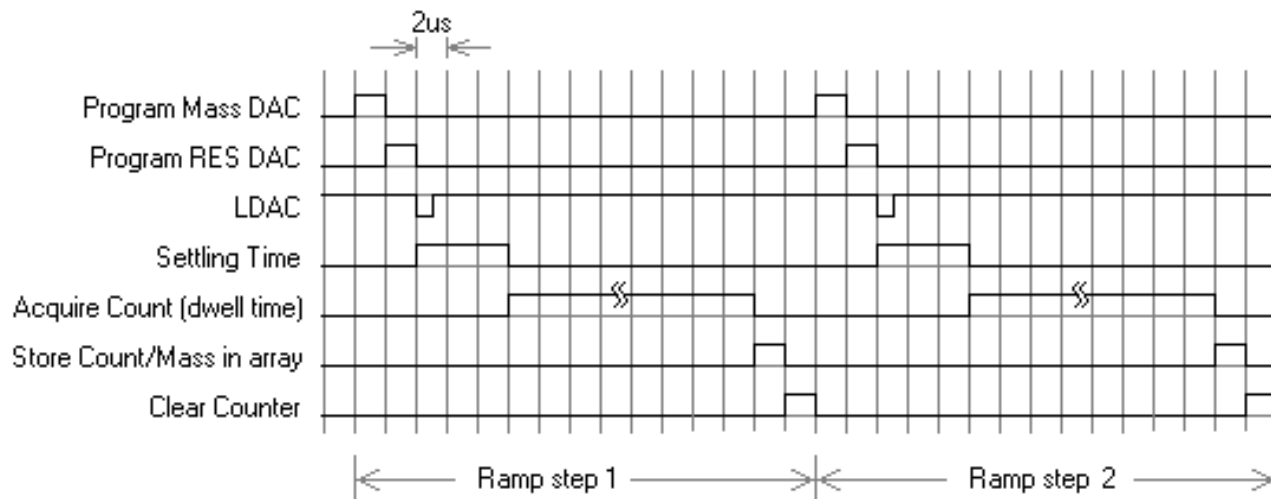Typical Timing Diagram for Ramp steps.
- Data acquisition (acquire count) must be synchronized with LDAC pulses as shown.
- DAC programming times are approximate. (see the data sheets).
- Settling time could be any number from 0us to 1000us, depending on the function.
- Dwell time is entered by user, or calculated from the method.

2us

| Program Mass DAC |
| Program RES DAC |
| LDAC |
| Settling Time |
| Acquire Count (dwell time) |
| Store Count/Mass in array |
| Clear Counter |

|←——— Ramp step 1 ———→|←——— Ramp step 2 ———→|

Special Case: Fast Scan
- For the fastest possible scan, settling time is set to zero, and two counters are
  toggled to acquire the data continuously.
- DAC's are being loaded with next step value, while count is being acquired.

2us

| Program Mass DAC |
| Program RES DAC |
| LDAC |
| Settling Time |
| Counter 1: Acquire (dwell time) |
| Counter 2: Acquire (dwell time) |
| Store Counter 1, Clear Counter 1 |
| Store Counter 2, Clear Counter 2 |

|←— Ramp step 1 —→|←— Ramp step 2 —→|