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Using a commercially-available GPS data logger, you can time-sync your SLICE data with GPS data. The systems are used independent of each other for data collection and later synchronized during post-processing.

Select a commercial, off-the-shelf GPS unit<sup>1</sup> that exports data to Excel or a .CSV file format. Other considerations include the recording data rate and number of data points (length of time) the unit can record. These and other specifications can be determined by your particular test and data requirements.

To collect data:

1. Make sure the PC that will arm the SLICE system has its internal clock synchronized to an accurate time source.
2. Mount both systems (SLICE and GPS) to the same structure.
3. Start GPS logging.
4. Using SLICEWare, arm the SLICE system using Recorder Mode and then begin data collection via the *Start Recording* button. This method will write the exact date/time to the SLICE log for the first data point collected.
5. After the test, download the SLICE and GPS data independently. Combine the data using the start time from the SLICE log (search for the string "SetSwitchImmediate"). For example:

```
=== 2009-09-17 10:17:02.850 =====  
-> BA00029::AR00017 SetSwitchImmediate [00000763]  
Switch: 5, Setting: 0
```

Note: The internal SLICE system time base will drift over time by as much as 10 ppm or 0.001% (~36 msec per hour).

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<sup>1</sup> Qstarz ([www.qstarz.com](http://www.qstarz.com)) offers several GPS recorders that work well for this application.