



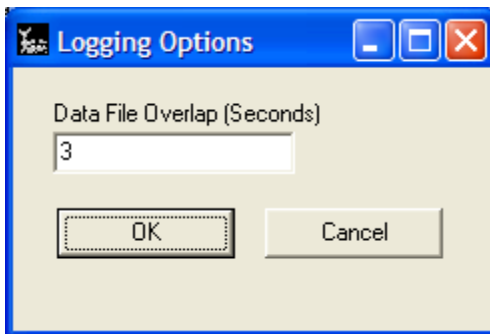
HYSWEEP® File Overlap

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Long survey lines are often broken into smaller segments using the Log Back Time (in the HYPACK® SURVEY Navigation Parameters). Log Backup Time starts logging a new data file every 'n' minutes. It is easier in processing to have a lot of smaller files than just a few monster files.

Previously, due to delays in closing / reopening files and device latency, small data gaps occurred between files. Overlap prevents the gaps, by continuing to log to the previous HSX file (HYSWEEP® Raw Format) after a new one has been opened. Overlap is selected in HYSWEEP® Survey File menu, Logging Options.

FIGURE 1. *Configuring the File Overlap*



The following are some potential questions with their answers!

What if I don't want to use overlap? Leave 0 seconds in logging options. This is the default.

When is overlap needed? Only when large files are broken up with Log Backup Time.

How many seconds of overlap? Three seconds should be enough unless you are working in deep water. Then, logging overlap is based loosely on sonar range; $\text{delay} = 6 * \text{meter range} / 1500 \text{ m/sec}$, allowing for three pings of delay within the sonar. For example, if sonar range = 5000 meters, the overlap should be;

Overlap seconds = $6 * 5000 / 1500 = 20$ seconds.

There's no harm in too much overlap, but too little will lead to data gaps.

What types of files are overlapped? At this time, only the following:

- **HSX** – Hysweep raw multibeam format. Hypack RAW files are *not* overlapped.
- **7K** – Reson 7K system datagrams.
- **81X** – Reson 81P system datagrams.