High Data Rates and Small Loggers: The Difficulties of Logging and streaming High Rate Real Time Data

Dale Amon, CEO, Immortal Data Inc

With the possibility of spacecraft structural data monitoring on the horizon, much thought needs to be put into how to handle and store such streams. This requires careful analysis of the hardware capabilities, a consideration of communication latencies as well as bandwidth, careful control of data link traffic and an understanding of their limitations.

On the software side, systems must be structured such that real time software had a priority and is highly optimized in the 'inner loop' where the poll, read, write actually occur.

Immortal Data worked with XCOR Aerospace on the Lynx Space plane data systems and is currently teamed with Dr Zagrai to collect high rate structural monitoring data required in his research.

The talk will include some real world anecdotes and problem analysis techniques.