Choice of program for ECIS time course data acquisition

The new ECIS software offers three different modes for time course data collection:

- multiple frequency/time (MFT)
- single frequency/time (SFT)
- rapid time collection (RTC)

The main determination in choosing a particular mode is whether one is monitoring cell changes that are taking place very rapidly. Most cell culture experiments involve changes that take place over minutes to hours; however, more rapid events may be monitored such as when studying signal transduction.

For the most rapid data acquisition, the RTC mode collects 10 or more samples per second but is restricted to monitoring a single well at a time and at a single frequency.

The SFT mode enables multiple wells to be monitored at a single frequency at a rate of 0.5 seconds per well.

To conduct a more thorough analysis of an experiment where rapid data acquisition is not an issue, we strongly recommend using the MFT program. Each well selected is automatically monitored at multiple frequencies (depending on the array type), the average rate being 10 to 15 seconds per well for a full frequency scan. Distinct aspects of cell behavior can be probed with different AC frequencies, and if you are using the Z Theta instrument, MTF data can be modeled to provide quantitative measurement of defined cell parameters.