According to Murphys law, problems in your production line will not happen if an Engineer is around. Therefore it is important to monitor the equipment 24/7. The easiest way to do this is to use one of our Streamingsystem, PROMON SCOPE or PROMON STUDIO – both Systems using the same technology for sequence recording. To give you an idea of the capability of this system, let’s set up one! First question, if an event happens in the line, what is essential for me to understand the problem and solve it?

What’s the time I need to be able to see before the problem occurs first and can be recognised by the inline inspection system or PLC or even the operator, and how long do I need to record after a event happens:

- **Recording before the event happens**: 5min
- **Recording after the event happens**: 2min
- **Our event, trigger by PLC or hand trigger**

This means, we have to record a 7min sequence over all.

What if we have to record a 24/7 shift? No problem, since we know how long a “sequence of interest” is, we don’t need to record the whole shift. We could adjust our sequence according to our need, this means, set a pre-trigger recording to 5min and post-trigger recording to 2min. Our PROMON Software will now generate a circular buffer as follows (symbolic):

- **GREEN**: Our PRE-Trigger Images in the Circular buffer – exactly 5minutes
- **ORANGE**: Older Images, will be overwritten with the Images defined in the POST-Trigger – exactly 2 minutes.
- **GREY**: In this diagram, recording has just started

Arm the system and let it run. If an event happens, PROMON will write the recorded sequence on a special folder on the hard drive, and if you wish, rearm itself for the next event that might happen during the shift.

To define the needed Harddrive capacity, you have to know how many sequences you would like to capture, without deleting the old ones:

For example: 10 sequences with a length of 6 minutes @ fullspeed (PROMON 501), you will need 500 GB free HDD space.

If you’re replaying one of those recorded sequences, you will find a small red arrow in the timeline, which indicate your event trigger in the sequence (and there we find our GREEN and GREY arrow again):

With this technology, there is no need to record 24/7 the whole process.

Please keep in mind, high-speed events happen within a few seconds, in most of the applications, a recording time of 30s is more than enough.