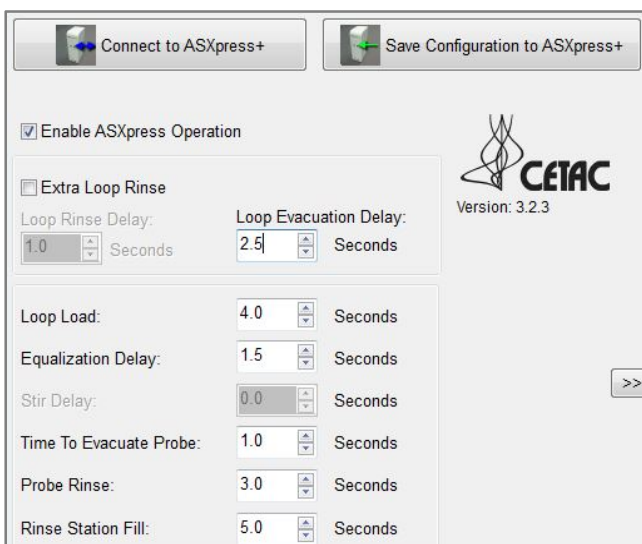


ASXPRESS PLUS Timings in Xpress Config



The screenshot shows the Xpress Config software interface for ASXPRESS PLUS. At the top, there are two buttons: "Connect to ASXpress+" and "Save Configuration to ASXpress+". Below these, there is a checkbox for "Enable ASXpress Operation" which is checked. To the right of this section is the CETAC logo and "Version: 3.2.3". Underneath, there is a section for "Extra Loop Rinse" with a checkbox that is unchecked. Below this, there are several timing parameters, each with a numeric input field and a "Seconds" label: "Loop Rinse Delay" (1.0), "Loop Evacuation Delay" (2.5), "Loop Load" (4.0), "Equalization Delay" (1.5), "Stir Delay" (0.0), "Time To Evacuate Probe" (1.0), "Probe Rinse" (3.0), and "Rinse Station Fill" (5.0). A right-pointing arrow button is visible on the right side of the settings area.

Connect to ASXpress+ – Establishes communications with the *ASXPRESS PLUS*.

Save Configuration to ASXpress+ – Updates the macro timings.

IMPORTANT: All changes to the parameters need to be saved to the *ASXPRESS PLUS* before they will become effective.

Enable ASXpress Operation – Checking this box turns on and off the *ASXPRESS* functionality.

Load Position Settings

Extra Loop Rinse – Checking this box will add a two-step rinse before sample aspiration. Rinse solution and then air, are pulled through the sample loop to prepare for the sample.

Loop Rinse Delay – Runs the vacuum pump for a set time to rinse the system prior to sampling.

Loop Evacuation Delay – Time required to empty the probe line and loop prior to sampling (normally 1 to 2 s).

Loop Load – This is the time necessary to pull the sample fully in to the loop. The loop is considered full when there is a small amount of sample fluid visible in the line connecting the valve to the vacuum pump.

Equalization Delay – Allows the vacuum pump to cycle down and pressure equilibrium to establish, both of which are necessary before the valve switches to inject position (normally 1 to 2 s).

Inject Position Settings

After the valve switches to the inject position the sample is pushed to the nebulizer by the ICP-MS/ICP-OES peristaltic pump. While the sample is being analyzed the probe visits the rinse station to wash out the sample introduction line.

Time to Evacuate Probe – Probe line is emptied via the vacuum pump. 1 second is typically sufficient.

Probe Rinse – Time that the vacuum pump will pull rinse solution from the rinse station. Typically this is set between 3 and 5 seconds, though it can be set longer if desired.

Rinse Station Fill – After the Probe Rinse, the autosampler probe is raised and the autosampler peristaltic pump continues filling the rinse station. It is necessary to set this value so that the rinse station completely fills with rinse solution for the next rinse cycle.