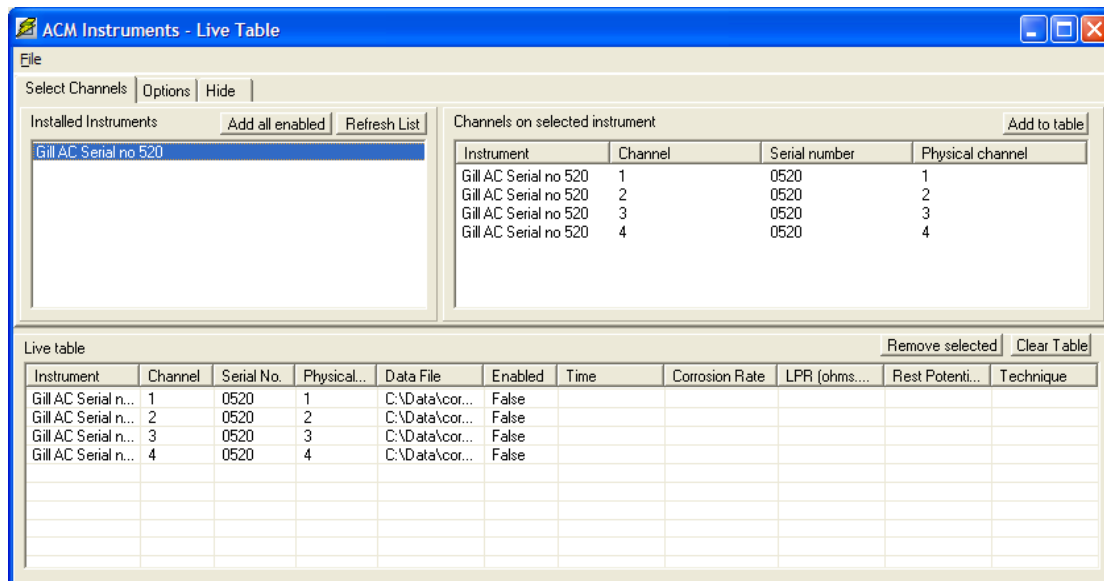# ACM Instruments Live MPY Table

The live table is a tool which watches the core running and displays a table of the last recorded corrosion rates for selected channels.

The screen is split in to two halves. The top is controlled by a series of tabs, "Select Channels" allowing selection of the channels to watch, "Options" contains various parameters for the calculation of the corrosion rate and "Hide" which hides the top section. The bottom section contains the table with the list of selected channels and their data.

Selecting a channel:

There are two ways of selecting channels to watch. Firstly, the most simple way is to select the "Add all enabled" option, which will find all the instruments and channels that are enabled in the core running. Selecting individual channels can be done by first selecting the instrument from the list of installed instruments, which will then display a list of channels from the instrument. The required channel can then be added to the watch list by highlighting and selecting "Add to table" or by simply double clicking.

To remove a channel from the watch list, select the channel in the table and click the "Remove selected" option. To remove all channels use the "Clear table" option.

Techniques that the software currently monitors are Long term LPR sweep and step, Long term Corrosion rate LPR sweep and step, Corrosion rate LPR Sweep mm/yr and LCM[TM]. The tong term techniques must be within a long term folder in the sequencer. For the LCM[TM] technique the corrosion rate is a general corrosion rate calculated from the calibration step polarisation.

LPR techniques calculate the corrosion rate from the parameters in the options section. Corrosion rate techniques use the stored value of MPY or mm/yr.

Options:
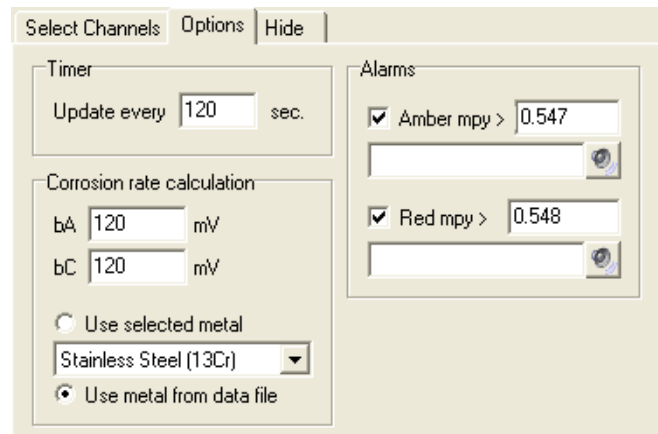
Timer, update every *n* sec, is how often the table checks for new data.

Corrosion rate calculation:

The parameters use to calculate the corrosion rate from the LPR value. bA and bC can be entered in mV and either a fixed metal used for all channels or use the metal selected in the sequencer software, when the test was started.

There are two optional alarms, Red and Amber. These alarms will display a message and play a sound file (optional) when the corrosion rate on a channel goes above the entered value. The alarms can be disabled or enabled by un-checking or checking them. The message shown will only display the last channel that triggered an alarm.

When the program is minimised, it hides itself away as a tray icon in the task bar. Double click the icon to display the table again.

The Live Table program is a simple tool to show how additional tasks can be performed on real time data, which do not fall within the scope of the sequencer or core running software.

Other programs (using the Live Table as a starting point) could easily be written to email alarms, email graphs at regular intervals, control other hardware, simplify the display from several instruments into a graphical green, amber and red status, etc…The possibilities are endless.

Using the sequencer software as the logging backbone keeps the reliability of our standard software and writing custom front ends for the data alone, keeps development time and costs to a minimum.