Appendix: Inficon SQS-242 Deposition Control Software Settings

02522-1 E-Beam System

To access any of the Inficon System Settings select the **Edit: System** menu.

SQM-242 Cards: This system PC is equipped with one Inficon SQM-242 card.

Below are the settings that were entered at Angstrom Engineering's facility prior to the shipment of the system. See the Inficon SQS-242 Deposition Control Software Manual in the System component information section of this manual for further information.

Outputs tab

Name	Physical Output #	FS Out
Output 1	1	10.0
Output 2	2	10.0
Output 3	3	None
Output 4	4	None

Sensors tab - Default

Name	Physical Sensor #	Output	Rate	Thick
Sensor 1	1	1	X	X
Sensor 2	2	2	X	X
Sensor 3	3	None		
Sensor 4	4	None		
Sensor 5	5	None		

Dual not checked on all setups.

Indexers tab

The source Index for Output 1 is used to index the electron beam source crucible. The index complete signal is checked. The index time of 15 seconds allows the hearth to rotate to the correct pocket before the deposition starts. Feedback from the indexer is sent to the SQS software when the indexing is complete, so that the process can move forward. If the pocket chosen is not reached the process will abort and an alarm is shown. Indexers for all other outputs are set to 1 second.

I/O tab

> **Note:** **Changing any of the relay assignments listed in this tab may render the Inficon software unable to control depositions.**

Relay Events

Relay 1	Process Running
Relay 2	Process Active
Relay 3	Pre-Cond Phase
Relay 4	Deposit Phase
Relay 5	Not Assigned
Relay 6	Final Thickness
Relay 7-15	Not Assigned

Input Events

Input 1	Not Assigned
Input 2	Abort Process
Input 3 – 12	Not Assigned

Comm 3, Address 0

Card tab (Default)

> **Ensure that the software is not in simulation mode if you wish to run a deposition. In simulate mode all Inficon relays and communications function, but the output signal voltages do not.**

Period	0.5
Filter	6*
Card Mode	Normal
Front Panel Enabled	Not checked
Last Output Displayed	3
Graph Continuous	Not checked
Phase settings	Checked
Card 1 Rev: 2.02	NOTE: There must be numbers in the revision section or the Inficon software cannot find the card. Contact Angstrom Engineering for assistance if this occurs.

> ***Note:** **The period and filter may have been increased from the default values of .25 and 3 to increase the rate resolution. This helps the software control at lower rates of deposition (rates less than 1 Å/s).**

Comm tab (Default)

RS 232 Port Disabled

Additional Notes:

Control error can be selected for all films to prevent the system from running endlessly if forgotten. The Slew rate is used to slow down violent power fluctuations caused by disturbances like spitting material hitting the control sensor.