- -	Presentat					
- 1.1	FR Sha	l have	a GUI.	DP Will	e a main window	for user interaction.
ġ- i	1.1.1 FR	Shal	have a Configuration Interface.	DP	Il have a configu	ration tab.
Ę	1.1.1.1	FR	Shall allow changing of alarm parameters.		Will have a su	btab for alarm parameters.
	1.	1.1.1.1	FR Shall allow changes to sample size.		DP Will have	e a radio button for sample size.
	- 1.	1.1.1.2	FR Shall allow changes to sample variance.		DP Will have	e a radio button for sample variance
	1.	1.1.1.3	FR Shall allow changes to alarm snooze length.		DP Will have	a radio button for alarm snooze length.
	- 1.	1.1.1.4	FR Shall allow alarm sound file to be changed.		DP Will have	e a radio button to access the sound file dialogue.
	- 1.	1.1.1.5	FR Shall allow changes to sound volume.		DP Will have	e a slider for volume control.
			Shall allow changing of collector parameters.			btab for collector parameters.
		1.00	FR Shall allow changes to the number of sensor array	s displave		a radio button for altering the number of sensor arrays.
			FR Shall allow changes to the number of sensors per			e a radio button for altering the number of sensors per array.
	- 1.	1.1.2.2				y
Ē	<u>-</u> 1.1.1.:	FR	Shall allow changing of serial communication paramete	rs.	Will have a si	ubtab for serial communication parameters
	- 1.	1.1.3.1	FR Shall allow change to the serial port number.		DP Will have	e a radio button for altering the serial port number.
	- 1.	1.1.3.2	FR Shall allow changes to the timeout length.		DP Will have	e a radio button for altering the timeout length.
- 1	1.1.2 FR	Shal	have a Visual Alert.	DP	Il indicate which	sensor(s) and/or array(s) are jammed by color change.
	1.1.3 FR	Shal	have an Audio Alarm.	DP	Il generate alert	sound using computer speakers.
·	114 FR	Shal	have a Statistics interface.	DP		s tab with a display element for each sensor array and sense
	1.1.4					
	- 1.1.4.1	FR	Shall display the address of each module.		Will label eac	h sensor array with its address.
	- 1.1.4.2	P FR	Shall display the egg count for each sensor.		Will label eac	n sensor with its egg count.
	- 1.1.4.3	FR	Shall display the total egg count for each module.		Will label eacl	n sensor array with its total egg count.
	- 1.1.4.4	FR	Shall display the total egg count.		Will indicate th	ne total egg count.
	1.1.4.	FR	Shall allow changes to module address.		Will make ead	ch sensor display element clickable to allow changing of its
					address.	
	·····		allow viewing of past log files.	DP	ght display past I	og files in child window.
÷.	1.1.6 FR	Shal	have a Status interface.	DP	Il have a status t	ab with a display element for each sensor array and sensor.
	1.1.6.1	FR	Shall show the status of each sensor.		Will indicate the	ne status of each sensor via color
	1.1.6.2	FR	Shall display the status of each sensor array.		Will indicate the	ne status of each sensor array via color
	1.1.6.3	FR	Shall allow sensor arrays to be disabled.		Will allow a se	ensor array to be disabled by clicking its display element
	1.1.6.4	FR	Shall allow the alarm to be disabled.		Will have a to	ggle for disabing the audio alarm
-	1.1.7 FR	Shal	allow viewing of the log since activation.	DP	ll have a log tab	updated as status changes are made.
-	1.1.8 FR	Shal	allow disabling of changes.	DP	Il have a button	o disable configuration changes.
	1.1.9 FR	Shal	require confirmation for reenabling changes.	DP	ll have a dialogu	e window to confirm reenabling changes.
	1.1.10 FR	Sha	Il allow the GUI to be closed and program shut down.	DP	ill have a close	window button.
-	1.1.11 FR		Il allow the GUI to be resized.	DP	/ill have a resiza	ble window and display elements.
	1.1.12 FR	Sha	Il allow the GUI to be minimized.	• • • • • • • • • • • • • • • • • • •	/ill have a Minimi	
			Il allow the GUI to be maximized.	· · · · · · · · · · · · · · · · · · ·	/ill have a Maxim	
				100 March 100 Ma		teraction elements suitable for touch interaction.
	Business		DP			
- 10 A			I		e existing POS.	
and the second s		-				ation for a Windows based system
	2.1.1 FR	Prim	ary Application			ation for a Windows-based system.
	2.1.1.	FR	Shall have an interface between the PC and the commu hardware.	nication	vviii have a B	ridge-to-Communication Driver.
	2.1.1.2	FR	Shall have a Hardware Polling Process.		Will have a co	ontrol structure implemented to poll modules.
		FR	Shall have a State Logic Process.			ontrol structure implemented as a state machine for determin
	2.1.1.				jams.	
	2.1.1.4	FR	Shall have a GUI Build/Update process.		Will incorpora	te a module or methods to update GUI components.
-	2.1.2 FR	Shal	utilize a Serial Communication Driver.	DP	Il incorporate a C	C/C++ driver or comm library to drive communication.
	2.1.3 FR		utilize communication standards compatible with the	DP	ll be RS-232 cap	able.
			controllers.			
	2.1.4 FR		utilize communication standards compatible with distar traints.	ice DP	Il convert commi	inication signal between RS-232 and RS-485.
	2.1.5 FR		incorporate error correction.	DP	aht use Hammin	g Code for error correction.
-			· ·		the BS2 Micro	-
	50		communicate in a standard appropriate to the microcom			S-485 back to RS-232 using a hardware converter.
	2.2.1 FR	Snal	communicate in a standard appropriate to the microcon		I CONVERTION R	שייט שמנה נט הטיבטב using a naruware converter.
	2.2.2 FR	May	buffer incoming communication.	DP	ght utilize UART	to buffer signals.
	2.2.3 FR		utilize Communication Software.	DP	-	implemented communication software.
	ED		have Counting Software.	DP		BASIC Control Structure to count eggs from hardware device
· 2	2.2.4					
	Data Are	ass I a	ver DP			
FR	Data Acc	000 20	-			

	3.1.2	FR	Shall be able to read log files.	DP	Will incorporate component to read log files.		
	3.1.3	FR	Shall be able to write configuration files.	DP	Will incorporate component to write configuration file.		
ι	3.1.4	FR	Shall be able to read configuration files.	DP	Will incorporate component to read configuration file.		
FR	Persi	stend	ce Layer DP				
4.1	FR	Primary Application DP			Windows-based application		
	4.1.1	FR	Shall record Configuration Settings.	DP	Will record configuration changes in a Configuration .ini file.		
	4.1.2	FR	Shall maintain log files of system status changes.	DP	Will store system status changes in a log text file.		
	4.1.3	FR	Shall have State Values.	DP	Will record state values in a configuration .ini file.		
	4.1.4	FR	May maintain egg counts for each sensor.	DP	Might maintain egg counts in a count file.		
	4.1.5	FR	May maintain egg counts for the system as a whole.	DP	Might maintain egg counts in a count file.		
-	4.1.6	FR	May store status changes in a database.	DP	Might incorporate a HTML Post module to store status changes in a MYSQL database.		
	4.1.7	FR	May store egg counts in a database.	DP	Might incorporate a HTML Post module to store egg counts in a MYSQL databa		
4.2	FR	Microcontroller DP					
	4.2.1	FR	Shall maintain a unique address.	DP	Will incorporate PBASIC object to store address.		
	4.2.2	FR	Shall maintain state values.	DP	Will incorporate PBASIC objects to remember state.		
L	4.2.3	FR	Shall store egg counts per sensor.	DP	Will incorporate PBASIC object to store egg counts.		