



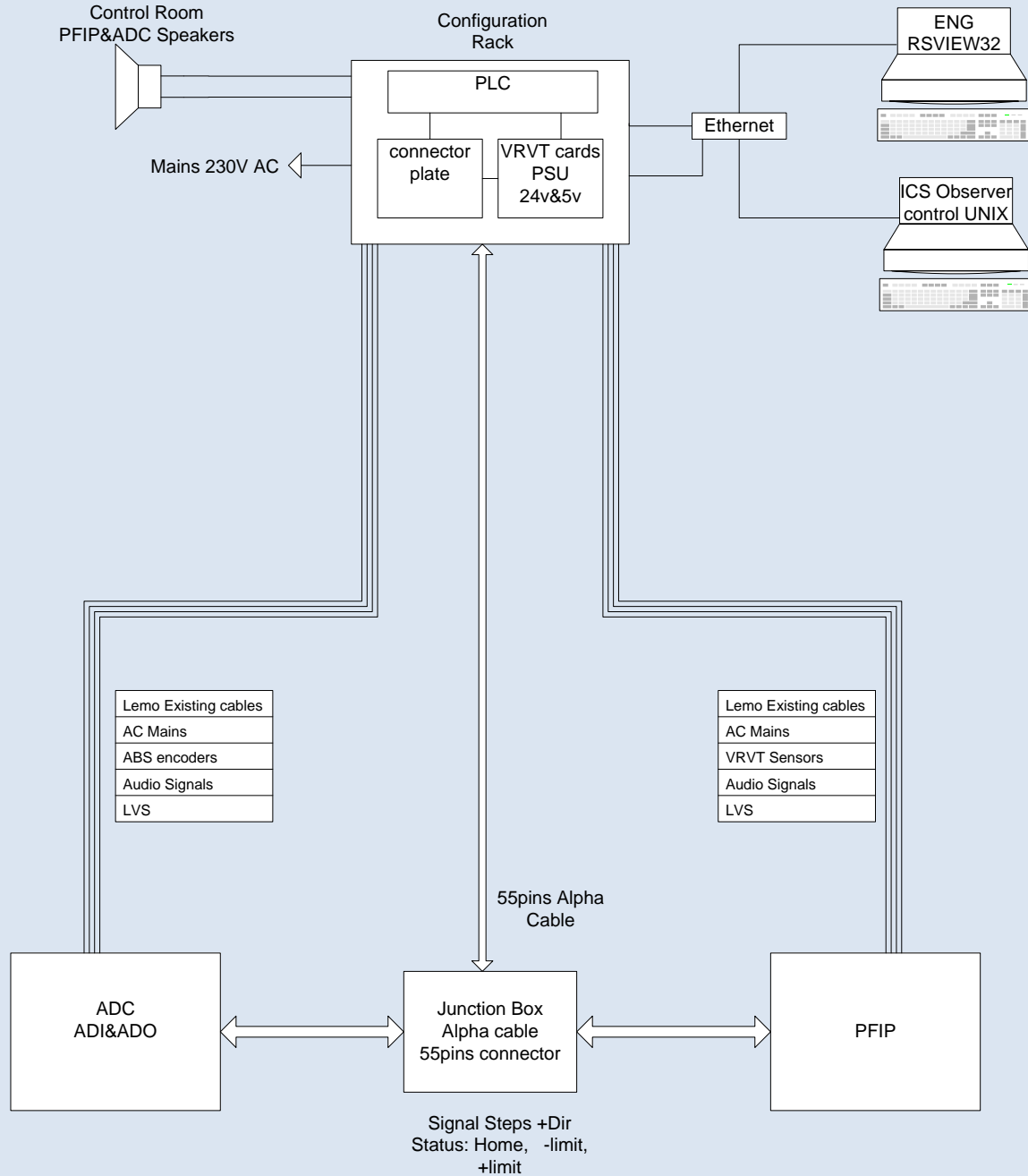
PAC ControlLogix Systems Spares

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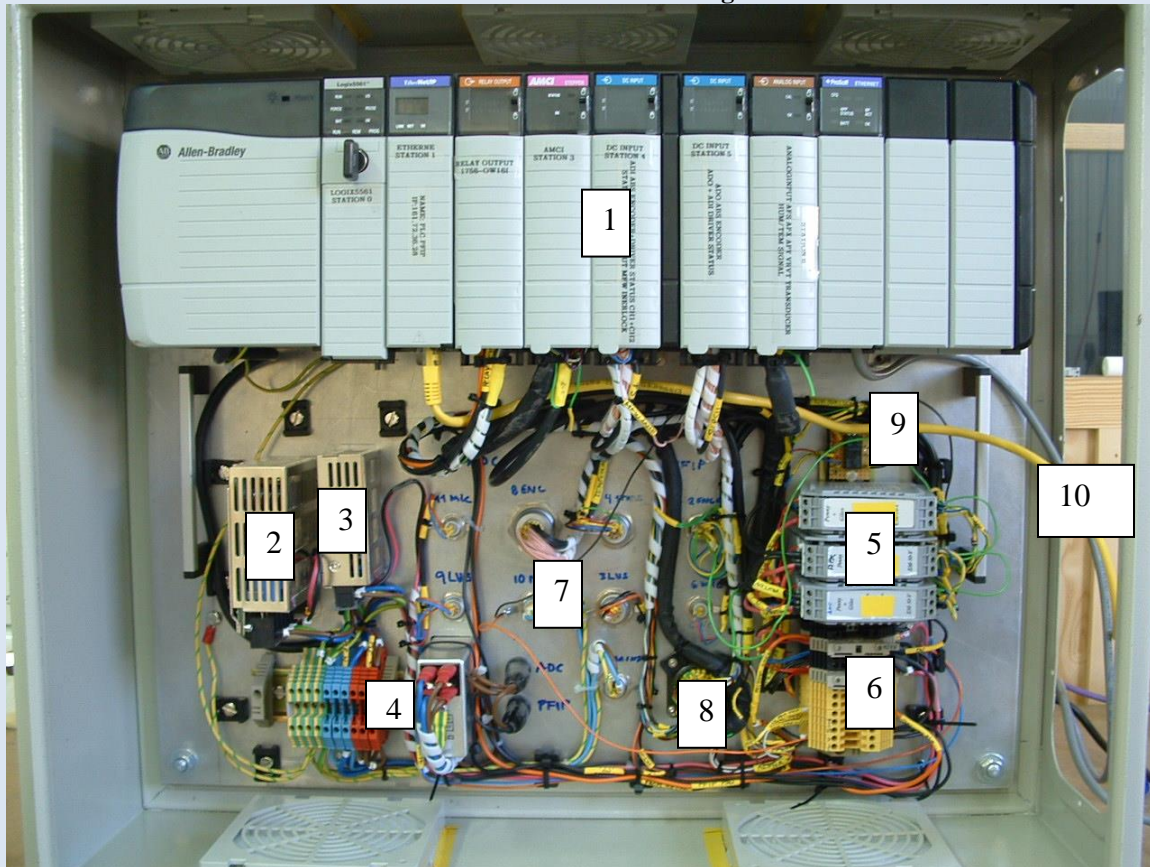
1 PAC'S OVERVIEW SYTEMS

1.1 PFIP Overview



1.1.1 PFIP Configuration Rack

Front view PLC configuration rack



1= PLC modules

2= 24V PSU 2Amps TRACO Power switching power supply model TXL 025-05S

3= 5V PSU 5 Amps TRACO Power switching power supply model TXL 035-15S

4= Input mains, fuses and distribution block.

3Amps fuses.

5= Penny+Giles electronics condition cards (model EM10-I and EM10-V)

6= 24V and 5V fuses and distribution block.

24V Fuse= 1Amps

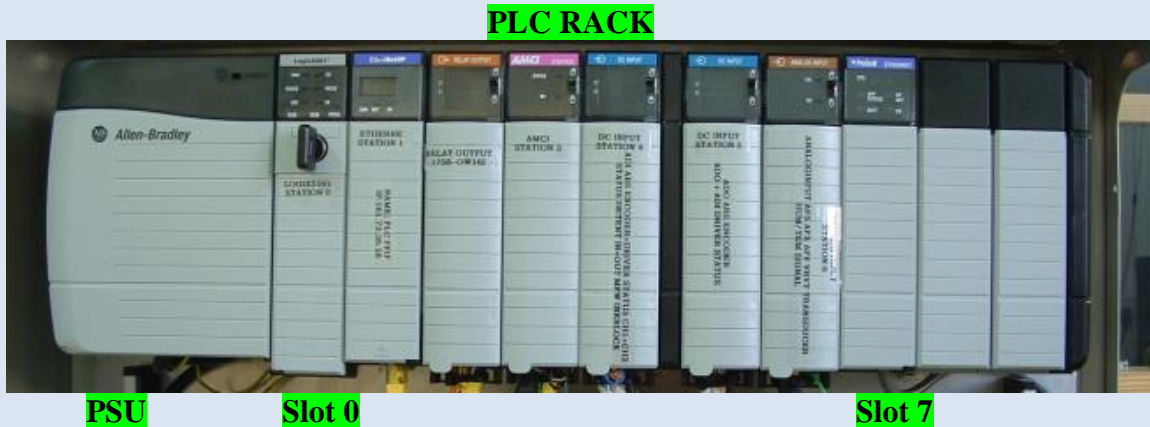
5V Fuse= 2Amps

7= Existing LEMO connectors.

8= 55pins alpha cable

9= Relay board to switch between temperature and humidity, this part is not used due a problem with the humidity sensor. The idea was to uses the same PLC analogical input and switch between both.

10= Two Ethernet cables connections.



Modules List

ControlLogix Rack-series B 10Slots

Power Supply

Slot 0 1756-L61 ControlLogix5561 Controllers

Slot 1 Ethernet/IP Bridge Module 1756-ENBT, RSview32 and RSlogix5000

Slot 2 Relay Output 1756-OW16L, Multiplexer control and driver control.

Slot 3 AMCI Stepper AMCI3204, 4 Channel Stepper Module, with limits and home switches.

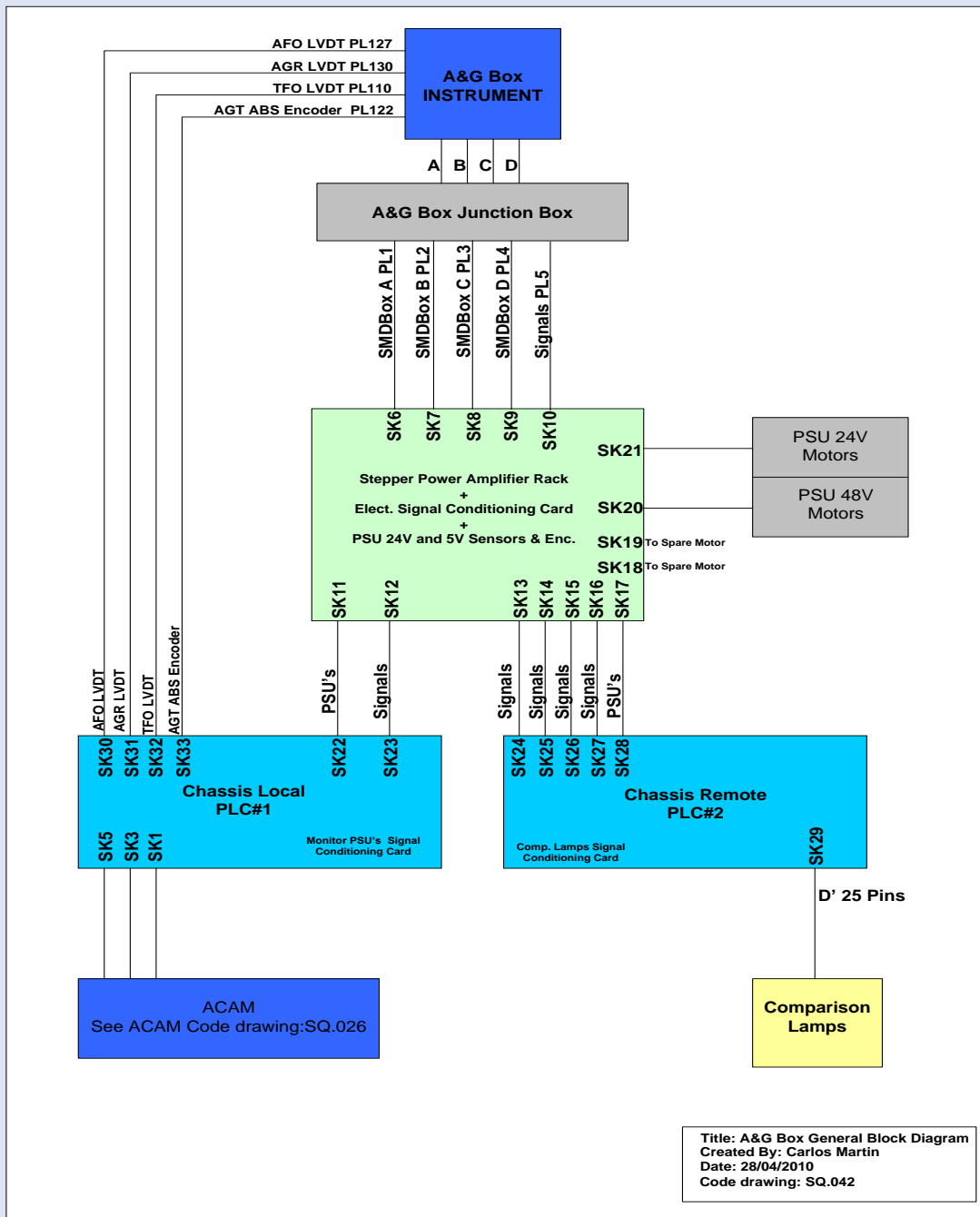
Slot 4 TTL Inputs modules 1756-IG16, ADI ABS encoder and others inputs signals.

Slot 5 TTL Inputs module 1756-IG16, ADO ABS encoder and others inputs signals.

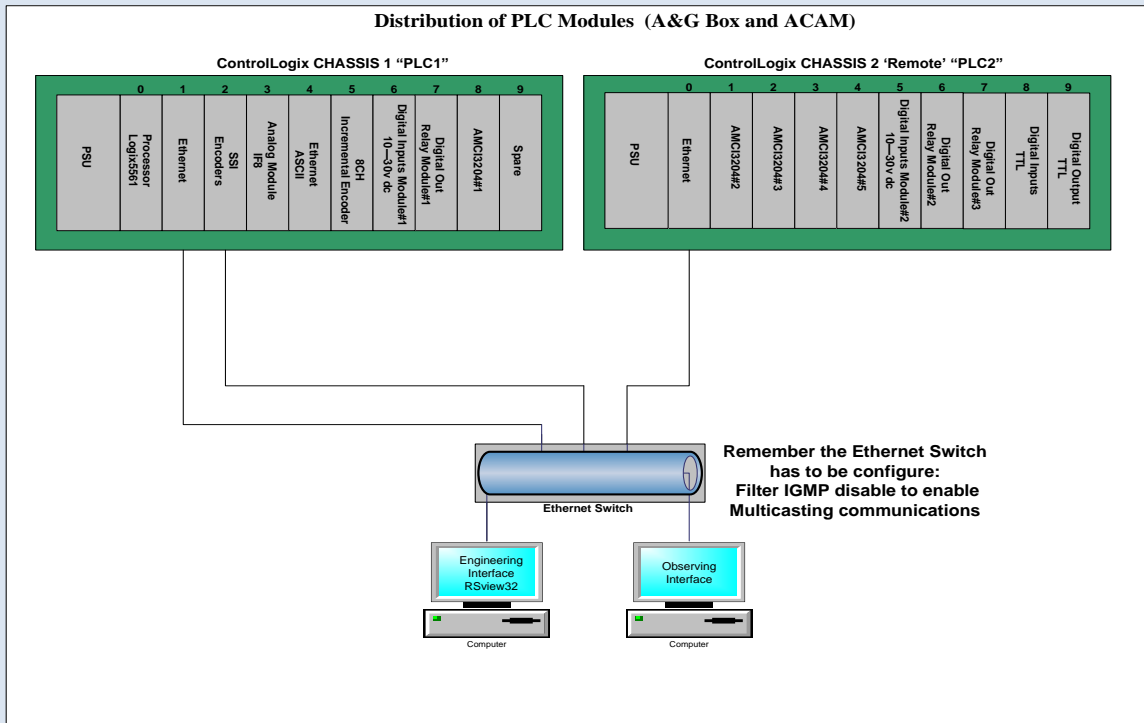
Slot 6 Analog Input 1756-IF8, Analog Inputs for the VRVT and Hum/Tem sensors.

Slot 7 MVI56-GEC, Generic ASCII Ethernet Interface Module.

1.2 A&G Box and ACAM Overview



1.2.1 A&G Box and ACAM Configuration Rack



PLC Local or Chassis 1



PLC Remote or Chassis 2



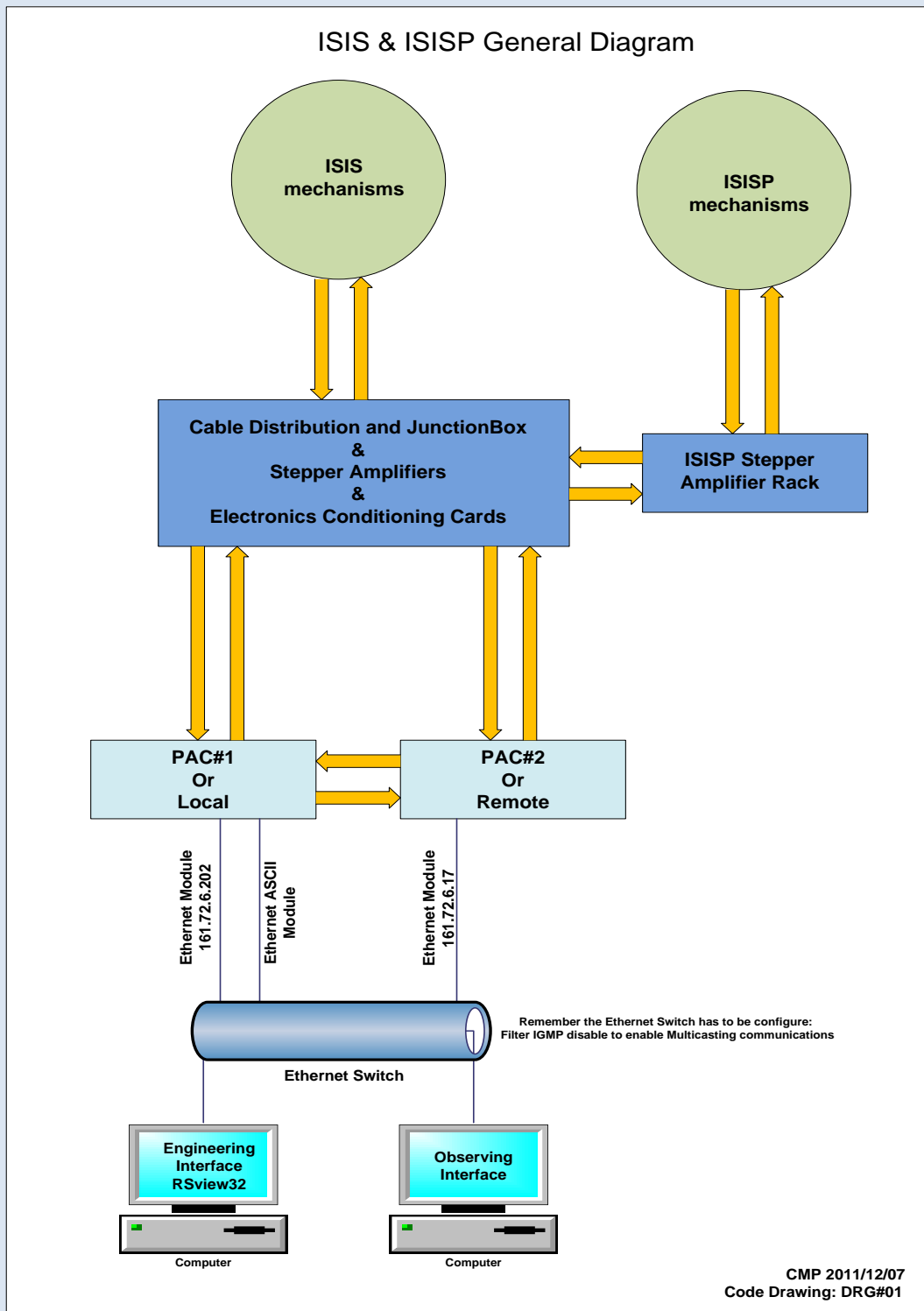
Module distribution for Chassis 1 Local "PLC1"

Slot	Module Name	Description
---	PSU	Chassis power Supply
0	Processor Logix5561	Processor Logix5561 with 2Mbytes of memory
1	1756-ENBT Ethernet	Bridge Ethernet communication Module
2	AMCI 7264 SSI	ControlLogix SSI 4 Channel (A&G Box, autotheta ABS ROC17 Encoder)
3	Analog IF8	Analog Input Module (A&G Box LVDT's + ACAM Temperature sensor)
4	MVI56-GEC Ethernet ASCII	ASCII Ethernet module, communication with ICS.
5	1756SC-CTR8	8 Channel Incremental Module or 4 Differential inputs (ACAM Incremental Encoder)
6	1756-IB32	32 Digital Inputs (ACAM + A&G Box) Digital Module#1
7	1756-OW16I	16 Digital output relay (ACAM + A&G Box) Relay Module#1
8	AMCI 3204#1 Stepper Module	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#1 ACAM Stepper motors. (There is one spare channel)
9	Spare	1 Spare Slot

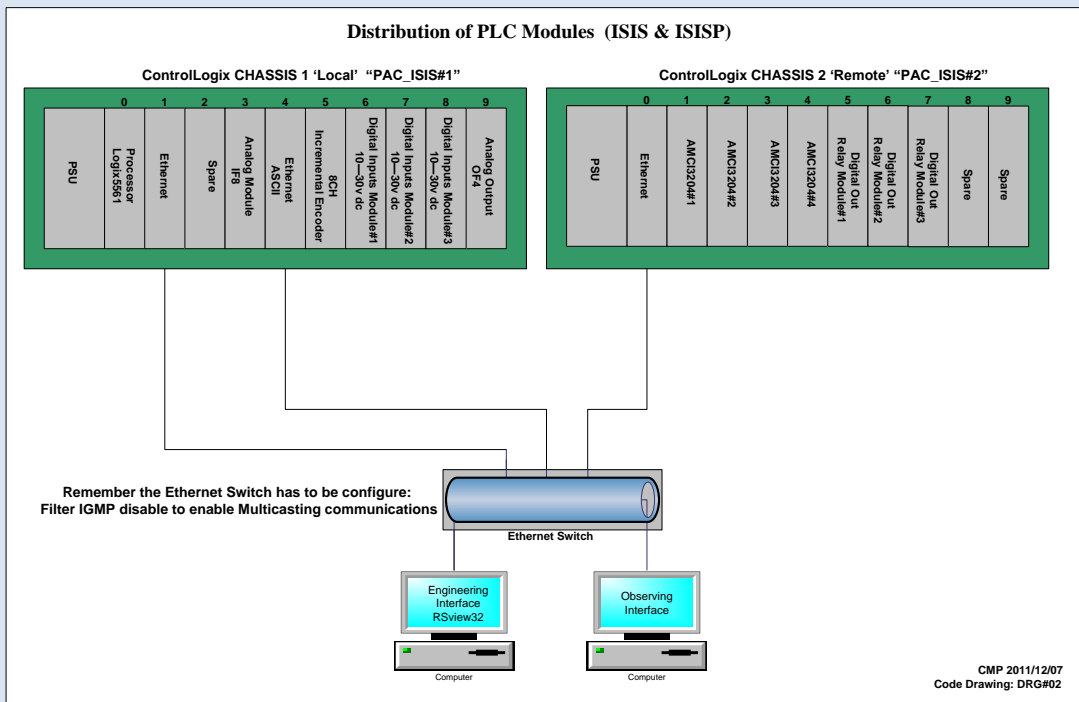
Module distribution for Chassis 2 Remote "PLC2"

Slot	Module Name	Description
---	PSU	Chassis power Supply
0	1756-ENBT Ethernet	Bridge Ethernet communication Module
1	AMCI#2 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#2 (A&G Box)
2	AMCI#3 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#3 (A&G Box)
3	AMCI#4 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#4 (A&G Box)
4	AMCI#5 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#5 (A&G Box)
5	1756-IB32	32 Digital Inputs (Only A&G Box) Digital Module#2
6	1756-OW16I	16 Digital output relay (A&G Box) Relay Module#2
7	1756-OW16I	16 Digital output relay (A&G Box) Relay Module#3
8	1756-IG16 TTL Input	Digital TTL Input module (Calibration Lamps status)
9	1756-OG16 TTL Output	Digital TTL Output module (Calibration Lamps Driver)

1.3 ISIS and ISISP Overview



1.3.1 ISIS and ISISP Configuration Rack



Chasis 1 and 2



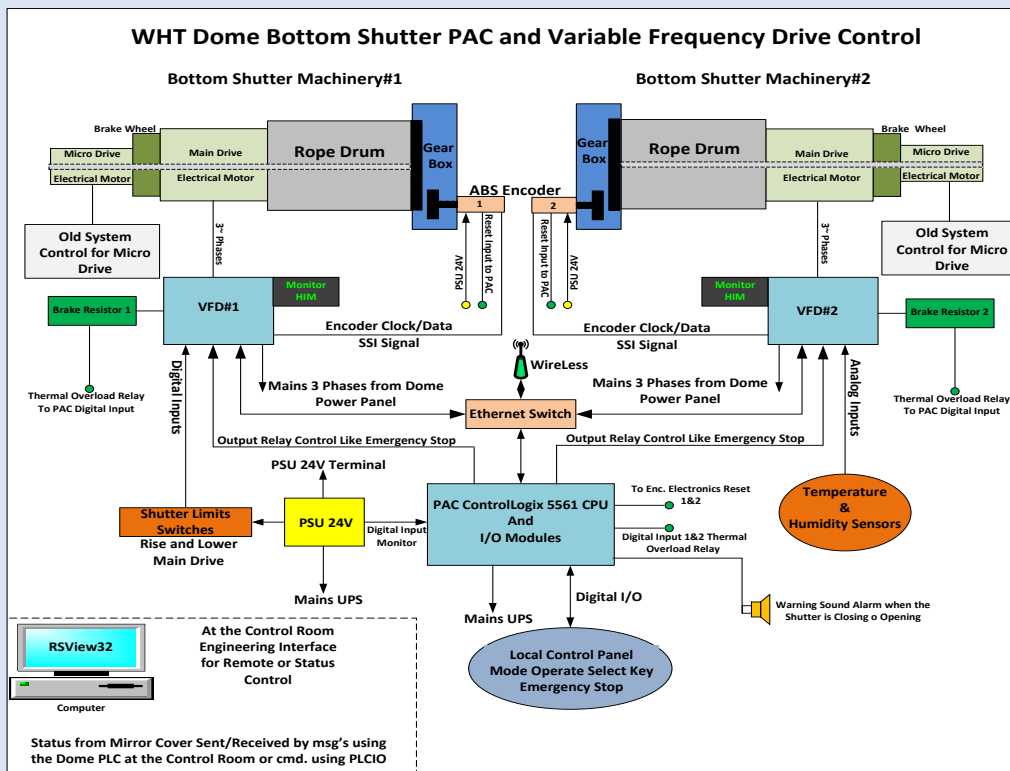
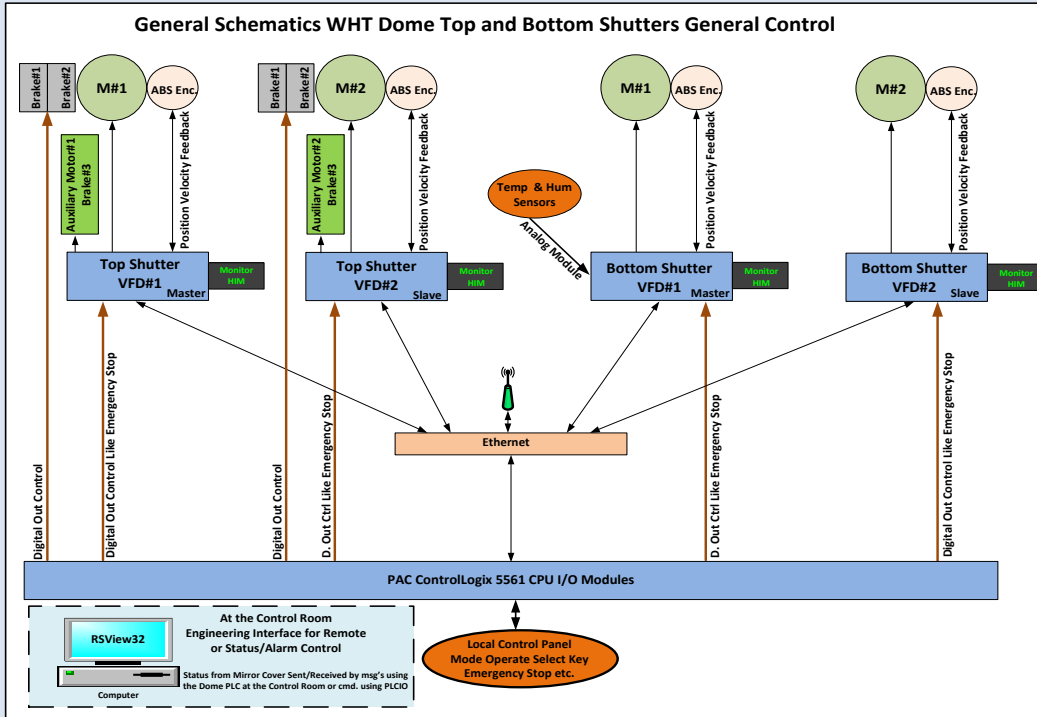
Module distribution for Chassis 1 Local "PAC1"

Slot	Module Name	Description
---	PSU	Chassis power Supply
0	Processor Logix5561	Processor Logix5561 with 2Mbytes of memory, The serial port is used to read the Ferranti encoders
1	1756-ENBT Ethernet	Bridge Ethernet communication Module
2	Spare	Spare slot (Future SSI Module)
3	Analog IF8	Analog Input Module (ISIS LVDT's)
4	MVI56-GEC Ethernet ASCII	ASCII Ethernet module, communication with ICS.
5	1756SC-CTR8	8 Channel Incremental Module or 4 Differential inputs (ISIP incremental encoders counter)
6	1756-IB32	32 Digital Inputs Digital Module#1
7	1756-IB32	32 Digital Inputs Digital Module#1
8	1756-OG16/A TTL Output	16 Digital TTL Outputs
9	1756-OF4	Analog Ouput module to control slit jaws

Module distribution for Chassis 2 Remote "PAC2"

Slot	Module Name	Description
---	PSU	Chassis power Supply
0	1756-ENBT Ethernet	Bridge Ethernet communication Module
1	AMCI#2 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#1
2	AMCI#3 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#2
3	AMCI#4 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#3
4	AMCI#5 3204 Stepper	4 Channel stepper module controller, also contains digital inputs for home and limits switches. Module#4
5	1756-OW16I	16 Digital output relay Digital Module#1
6	1756-OW16I	16 Digital output relay Relay Module#2
7	1756-OW16I	16 Digital output relay Relay Module#3
8	Spare Slot	
9	Spare Slot	

1.4 WHT Dome Shutters Control Overview (Not Completed)



PLC Rack



VFD's Rack



2 SPARE PAC'S MODULES AND LOCATION

Module Description	Reference	S/N	F/W REV	Location	Note
ControlLogix Chassis	1756-A10/ B	0044EC7D	-	Test Focal Station	Test PAC controller
ControlLogix Chassis	1756-A10/ B	xxxxxxxxx	-	Aluminizing area PAC spares cabinet	
Chassis PSU	1756-PA72/ C	-	-	Test Focal Station	Test PAC controller
Chassis PSU	1756-PA72/ C	-	-	Aluminizing area PAC spares cabinet	
ControlLogix CPU	1756-L61 B Logix5561	008E0806	20.012	Test Focal Station	Test PAC controller
ControlLogix CPU	1756-L61 B Logix5561	0073CAD8	20.012	Aluminizing area PAC cabinet	
Ethernet Module	1756-ENBT/A	006246DE	6.006	Aluminizing area PAC cabinet	
Ethernet Module	1756-EN2T	00AFEFFB	10.007	Test Focal Station	Test PAC controller
Ethernet Module	1756-ENBT/A	00903A06	6.004	Aluminizing area PAC spares cabinet	
Prosoft Ethernet ASCII Module	MVI56	00007ED3	1.002	Test Focal Station	Test PAC controller
Communication SERCOS fibre Interface 8 Axis	1756-M08SE/B	200DD2C5	4.003	Aluminizing area PAC spares cabinet	For test purposes
Spectrum Control Counter	1756sc-CTR8	0F000306	1.11	Aluminizing area PAC spares cabinet	8 Channel single end, or 4 differential and quadrature mode. (Incremental Encoders)
AMCI SSI Module	AMCI 7264	10070739		Aluminizing area PAC spares cabinet	4 channels SSI interface

AMCI SSI Module	AMCI 7264	10080301		Aluminizing area PAC spares cabinet	4 channels SSI interface
Analog Input Module	1756-IF8/A	004C201F	1.5	Aluminizing area PAC spares cabinet	8 Channels analog inputs or 4 Channels differential analog inputs
Analog Input Module	1756-IF8/A	0063E6BA	1.5	Aluminizing area PAC spares cabinet	8 Channels analog inputs or 4 Channels differential analog inputs
Analog Input Module	1756-IF8/A	0063E6C7	1.5	Aluminizing area PAC spares cabinet	8 Channels analog inputs or 4 Channels differential analog inputs
Analog Output module	1756-OF4/A	004B2B29	1.5	Aluminizing area PAC spares cabinet	4 Channels analog output
Stepper Module	AMCI 3204	10080414		Aluminizing area PAC spares cabinet	4 Channels stepper controller modules
Stepper Module	AMCI 3204	10080415		Aluminizing area PAC spares cabinet	4 Channels stepper controller modules
Stepper Module	AMCI 3204	10080416		Aluminizing area PAC spares cabinet	4 Channels stepper controller modules
DC Digital Inputs Module	1756-IB32/B	00638359	3.5	Aluminizing area PAC spares cabinet	DC Input 32 Points 24VDC 10-31.2 DC 5.5mA
DC Digital Inputs Module 24V	1756-IB32/B	006383B9	3.5	Aluminizing area PAC spares cabinet	DC Input 32 Points 24VDC 10-31.2 DC 5.5mA
DC Digital Inputs Module TTL	1756-IG16/A	C006CD0C	3.2	Aluminizing area PAC spares cabinet	DC Input 16 Points TTL
DC Digital Inputs Module TTL	1756-IG16/A	C008E37B	3.2	Aluminizing area PAC spares cabinet	DC Input 16 Points TTL
DC Digital Output Module TTL	1756-OG16/A	C00DC13D	3.2	Aluminizing area PAC spares cabinet	DC Output 16 Points TTL

DC Digital Output Module TTL	1756-OG16/A	C00DC14E	3.2	Aluminizing area PAC spares cabinet	DC Output 16 Points TTL
Digital Output Module Relay	1756-OW16I/A	C00D8C16	3.2	Aluminizing area PAC spares cabinet	Output 16 Points Relay
Digital Output Module Relay	1756-OW16I/A	C00C9F89	3.2	Aluminizing area PAC spares cabinet	Output 16 Points Relay
Digital Output Module Relay	1756-OW16I/A	C00D8F8B	3.2	Aluminizing area PAC spares cabinet	Output 16 Points Relay

3 DOCUMENTATION LINKS

PFIP <https://bscw.ing.iac.es/bscw/bscw.cgi/97447>

A&G Box and ACAM <https://bscw.ing.iac.es/bscw/bscw.cgi/181031>

ISIS & ISISP <https://bscw.ing.iac.es/bscw/bscw.cgi/211234>

Dome Shutters <https://bscw.ing.iac.es/bscw/bscw.cgi/325107>