

# Davicom installation @DEX



# Who is G.S. Broadcast/Oakwood?

1. Equipment Reseller
2. Station maintenance
3. Systems Integrator

(Radio Studios, Radio and Television Transmitters)

# Davicom Installation

1. System Planning
2. Off-site prep work
3. Installation process
4. Check lists
5. Tips, Ideas & Something different

# System Planning

MAC Unit 1 - Master I/O Board 1			
Metering - Card AA		Status In - Card AA	
1A1	TX A Forward Power	1D1	TX A On Air
		1R1	Select TX A On Air
MAC MEXM-1 I/O Board 1			
Metering - Card CC		Status In - Card CC	
1MA1	Generator Fuel Level	1MD1	Generator Fuel Containment Alarm
1MA2	Coax Line Manifold Pressure	1MD2	Dehydrator Alarm
1MA3	Coax Line Manifold Air Flow	1MD3	
1MA4	Remote Control 24 Volt Supply	1MD4	
1MA5		1MD5	
1MA6		1MD6	Fan Alarm
1MA7		1MD7	Temperature Alarm
1MA8		1MD8	Smoke Detector Trouble
1MA9		1MD9	TX Room Smoke Alarm
1MA10		1MD10	HVAC Summary Alarm
1MA11		1MD11	APTX 1 Silence / APTX 1 IP Rx Alarm
1MA12		1MD12	APTX 2 Silence / APTX 2 IP Rx Alarm
1MA13		1MD13	Bell TV Silence
1MA14		1MD14	KLZ Logger Silence
1MA15		1MD15	iPod Silence
1MA16		1MD16	Off-Air 96.3 Silence (F)
1MA17		1MD17	APTX 1 Selected
1MA18		1MD18	APTX 2 Selected
1MA19		1MD19	Bell TV Selected
1MA20		1MD20	KLZ Logger Selected
1MA21		1MD21	iPod Selected
1MA22		1MD22	Off-Air 96.3 Selected
1MA23		1MD23	Main / Standby Processor into TX A
1MA24		1MD24	Main / Standby Processor into TX B
		1MR1	i-Low Fuel Warning
		1MR2	
		1MR3	
		1MR4	
		1MR5	
		1MR6	
		1MR7	KLZ Logger Skim
		1MR8	i-Program Not Normal
		1MR9	i-Program Fault
		1MR10	Audio Switching Auto/Man
		1MR11	APTX 1 Automatic Switching Disabled
		1MR12	APTX 2 Automatic Switching Disabled
		1MR13	Bell TV Automatic Switching Disabled
		1MR14	
		1MR15	iPod Automatic Switching Disabled
		1MR16	
		1MR17	APTX 1 Select
		1MR18	APTX 2 Select
		1MR19	Bell TV Select
		1MR20	MT Logger Select
		1MR21	iPod Select
		1MR22	Off-Air Select
		1MR23	Select Main Processor
		1MR24	Select Standby Processor
		1R28	i-MAC Local
		1R29	i-MAC Call Out Disabled
		1R30	Entry Alarm Siren
		1R31	Entry Pre Alarm
		1R32	Building Entry Alarm
		1D28	Generator Alarm
		1D29	Generator Battery Fault
		1D30	Surge Suppressor Fault
		1D31	Engineer On Site
		1D32	Front Door Open



# Site Equipment & Sensors

Transmitters, Hydro Transfer Switches, Generator, Fuel Tank Level indicator, Ventilation systems, Audio Switchers, Silence/AES Detectors, UPS, Voltage Samples, Hydro Surge Protector, Dehydrator, Antenna Coax Line Pressure, Antenna Coax Air Flow, STL equipment, Fire Detection Panels, Temperature Sensors, RF Load, PPM Encoders and Monitors, Liquid Sensors, RF Power meters, Tower Light Controllers, Lightning, Detectors, DA Frames, Modulation Monitors

# Site Equipment & Sensors

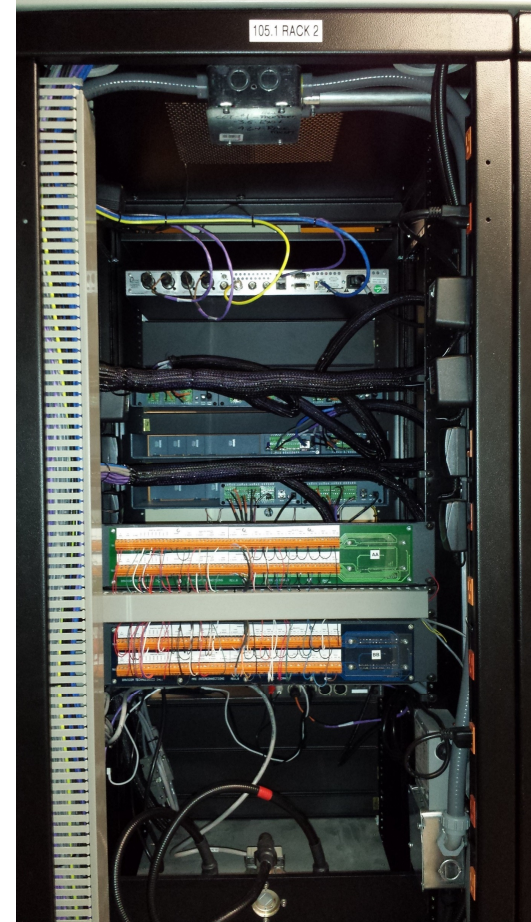
Transmitters, Hydro Transfer Switches, Generator, Fuel Tank Level indicator, Ventilation systems, Audio Switchers, Silence/AES Detectors, UPS, Voltage Samples, Hydro Surge Protector, Dehydrator, Antenna Coax Line Pressure, Antenna Coax Air Flow, STL equipment, Fire Detection Panels, Temperature Sensors, RF Load, PPM Encoders and Monitors, Liquid Sensors, RF Power meters, Tower Light Controllers, Lightning, Detectors, DA Frames, Modulation Monitors

# System Planning

1. System Size – Before you order your Davicom do a system layout to determine the size of unit you need
2. Location of Davicom I/O Panel

# I/O Panel Location

Wall  
Cabinet



Back of  
equipment rack

# System Planning

1. System Size – Before you order your Davicom do a system layout to determine the size of unit you need
2. Location of Davicom I/O Panel
3. Documentation
  - Wirelists
  - Drawings
  - Etc.





# Off-Site prep work

1. Program the Davicom
2. Pre-make any assemblies that will be required
3. Pre-make cable harness
4. Why not build the whole site!!!



# Site Installation

1. Cable Pull & termination
2. Sensors installation
3. Programing changes
4. System Testing
5. Update Documentation



# Site Installation

**MAC Unit 1 - Master I/O Board 1**

Metering - Card AA		Status In - Card AA		Command - Card AA	
1A1	TX A Forward Power	1D1	TX A On Air	1R1	Select TX A On Air
1A2	TX A Reflected Power	1D2	TX A RF On	1R2	TX A RF On
1A3	TX A PA Volts	1D3	TX A Wattmeter VSWR	1R3	TX A VSWR Reset
1A4	TX A PA Total Current	1D4	TX A Fire Shunt Trip	1R4	TX A RF Off
1A5	TX A Exhaust Temperature	1D5	TX A Summary Alarm	1R5	TX A Reset
1A6	TX B Forward Power	1D6	TX A Preset 1	1R6	TX A Preset 1
1A7	TX B Reflected Power	1D7	TX A Preset 2	1R7	TX A Preset 2
1A8	TX B Exhaust Temperature	1D8	TX A Interlock Open	1R8	
		1D9	TX A Exciter A / B	1R9	TX A Exciter A / B
		1D10	TX A Ext Alarm - Audio, I-L, Ethernet	1R10	TX A Increase Power
		1D11	TX A High Temperature Alarm	1R11	TX A Decrease Power
		1D12	TX A High Reflected Power Alarm	1R12	MAC BDT Start
		1D13	TX A IPA/PA Fault Alarm	1R13	MAC BDT Stop
		1D14	TX A AC Power Alarm/Power Supply Alarm	1R14	MAC BDT Failsafe
		1D15	TX B On Air	1R15	Select TX B On Air
		1D16	TX B RF On	1R16	TX B RF On

**MAC Unit 1 - Master I/O Board 2**

Metering - Card BB		Status In - Card BB		Command - Card BB	
1A9	TX B PA Volts	1D17	TX B Summary Alarm	1R17	TX B RF Off
1A10	TX B PA Total Current	1D18	TX B High Reflected Power Alarm	1R18	TX B Reset
1A11	Transmitter Room Temperature	1D19	TX B Interlock Open	1R19	i-Gen Test Week 1
1A12	Outdoor Temperature	1D20	TX B AC Power Alarm	1R20	i-Gen Test Week 2
1A13		1D21	TX Auto Change Enabled	1R21	TX Auto Change Enabled
1A14	Phase 1 Voltage	1D22	RF Load Run	1R22	RF Load Run
1A15	Phase 2 Voltage	1D23	RF Load Overheat	1R23	Generator Test Start
1A16		1D24	On Hydro	1R24	Generator Test Stop
		1D25	On Generator	1R25	
		1D26	Hydro Fail	1R26	i-MAC Programming Not Auto
		1D27	Generator Running	1R27	i-MAC Alarms
		1D28	Generator Alarm	1R28	i-MAC Local
		1D29	Generator Battery Fault	1R29	i-MAC Call Out Disabled
		1D30	Surge Suppressor Fault	1R30	Entry Alarm Siren
		1D31	Engineer On Site	1R31	Entry Pre Alarm
		1D32	Front Door Open	1R32	Building Entry Alarm

# Tip!



# Virtual Logic Gates

DavLink - Name: CFMO 102.9 Collingwood ID: 1029 - 2016-03-17 21:05:30 - [Virtuals]

File Edit Setup Unit View Tools

Mac 1 - MEXM-1/2 Virtuals Math-Metering FLAG

VIRTUAL INPUTS

1V01 ~davnet test

1V03

1V04 TX Auto Change Enabled

1V05 AC Power OK

1V06 TX-A On-Air

1V07 TX Autochange Ready

1V08 TX-A RF OK

1V09 ~Transfer to TX-B

1V10 ~Start TX B

1V11

1V17 Bell TV Test Ok

1V18

1V19 IP Link(s) Ok

1V20 ~Request Bell TV Audio

1V21 ~Bell TV Audio 102.9 Feed

1V22

1018

1019

1020 ~Request Bell TV Audio

1021 ~Manual Bell 102.9 Audio

1022

Virtual Logic Gates (VLG): Name: CFMO 102.9 Collingwood ID: 1029

VLG Number: 1V10 ☒ Enable ☐ Auto Read Read Write Delete

Descriptions when Active

Default Start TX B

Alternate Start TX B

Descriptions when Normal

Default ~Start TX B

Alternate ~Start TX B

Actions Vocal Description when Active Vocal Description when Normal

Configuration

Action Type: CMD Alarm List:

Logic Operator

☒ AND ☐ OR ☐ NAND ☐ NOR

Operands

1V009

1D15

1V10

Controlled relays: 1 2 3 4 5 6

1R16P 1R04P 1R18P

Signaling On

☒ Alarm

☒ Return to Normal

Delays

Before Action (sec) 5

Before Return to Normal 0

Logging

☐ Custom Log

OK Cancel



# SNMP

DavLink - Name: CFMO 102.9 Collingwood ID: 1029 - 2016-04-03 18:18:40 - [SNMP]

File Edit Setup Unit View Tools Window Help

Mac 1 - MEXM-1/2 Math-Metering Virtuals SNMP FLAGS Mac1-2 Mac3-4

----- SNMP - GET -----

1	BELL AUDIO 1029	00 00 04
2	Minor Alarm Status	2.00
3	Alarm Calls	1.00
4	HVAC Filter Alarm	0
5	HVAC Backup P.S.	0
6	HVAC Damper Fault	0
7	HVAC Cooling Fault	0
8	Codec1 Cable Dropped Packets	8401
9	Codec1 Cable Dropped Pkt (HR)	8029
10	Codec1 DSL Dropped Packets	243
11	Codec1 DSL Dropped Pkt (HR)	243
12	ATS Source A Status	2.00
13	ATS Source B Status	2.00
14	RDS Encoder Status	11 00 00 00
15	Bell Tv	00 00 04
16	RDS Text	CERTO IN F: FINALE BY FRANZ KROMMER (17:59-18
17	Codec1 combined dropped packet	0
18	Codec1 combined dropped pkt(HR)	0
19	Codec2 Combine Dropped Packets	0
20	Codec2 Combine Dropped Pkt(HR)	0

DavLink - Name: CFMO 102.9 Collingwood ID: 1029 - 2016-04-03 18:19:32 - [Math-Metering]

File Edit Setup Unit View Tools Window Help

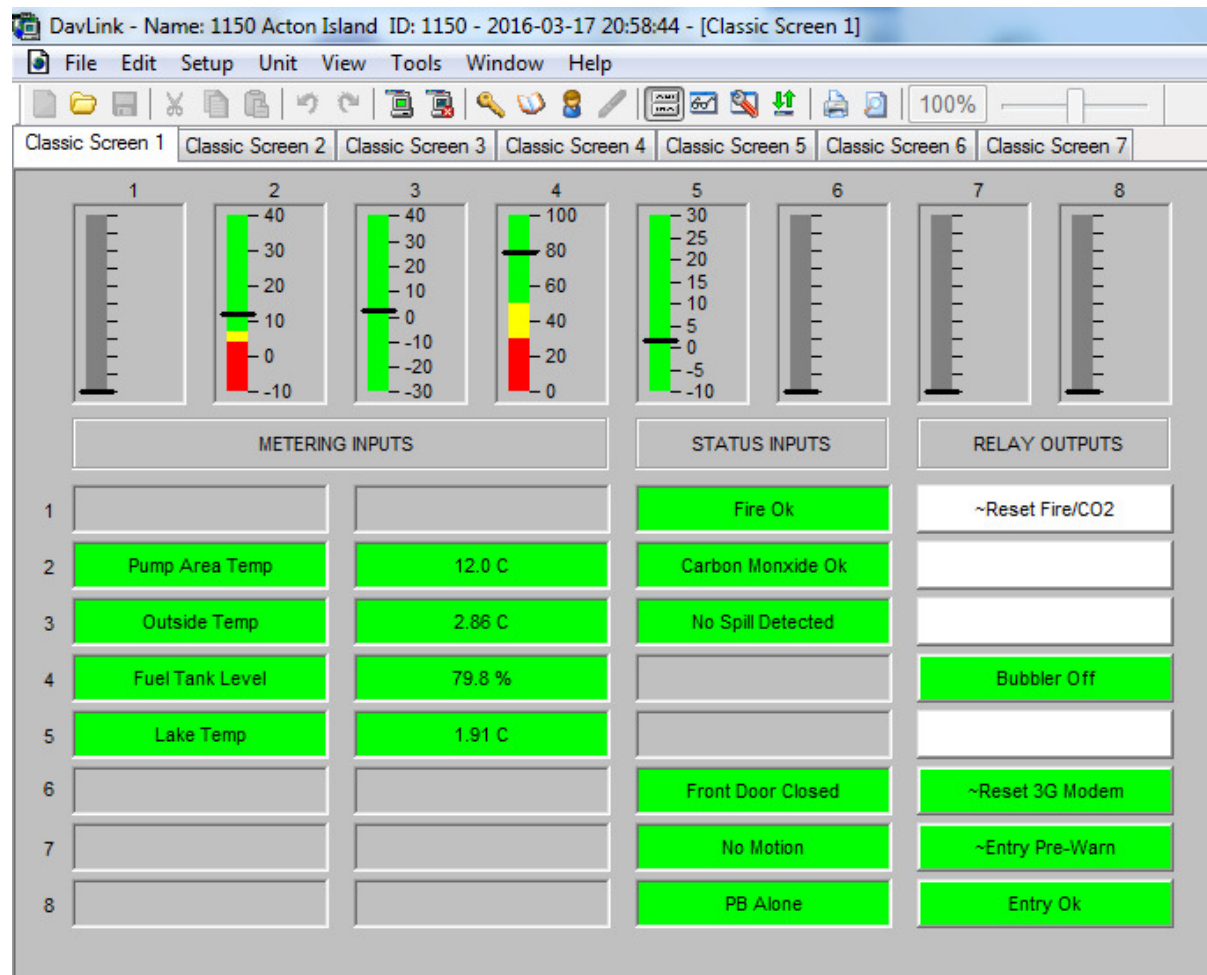
Mac 1 - MEXM-1/2 Math-Metering Virtuals SNMP FLAGS Mac1-2 Mac3-4

MATH METERING FUNCTIONS

**MAC #1**

1	TX-A Low RF	11.0 kW	0 12
2	Hydro Phase 1	125 V	-40 40
3	Hydro Phase 2	122 V	-40 40
4			
5	APTX 1 Cable	401 PKT	0 250
6	APTX 1 DSL	0 PKT	0 100
7	APTX 1 Combined	0 PKT	0 50
8	APTX 2 Cable	456 PKT	0 250
9	APTX 2 DSL	0 PKT	0 100
10	APTX 2 Combined	0 PKT	0 50
11			
12			
13			

# Where can you install a Davicom



# Questions

# Thank you!!

Richard Sondermeyer

[richard.sondermeyer@gsbts.com](mailto:richard.sondermeyer@gsbts.com)

905-814-7902

[www.gsbts.com](http://www.gsbts.com) (project and maintenance)

[www.oakwoodbroadcast.com](http://www.oakwoodbroadcast.com) (equipment resale)

Twitter: @gsbroadcasttech