



PYTHIA TECHNOLOGIES
data transformation solutions

Quick Start Guide

CS0-AC2

Version 20220418

INTRODUCTION

The panel provides Modbus/TCP/RTU (monitoring and control) and BACnet/IP/MSTP (monitoring only). The module is configured via the PTT_CM04P_AC02_Tools.exe tool which can be downloaded from <https://www.pythiatech.com/downloads>.

CS0-AC2 Documentation and Tools (zip)

[Download](#)

Default Communication Settings

- IP Address: 169.254.254.1, 255.255.0.0, 169.254.254.254
- Modbus/BACnet MSTP Address: 2
- Serial Configuration: 19200, 8, N, 1

Note: Configure your PC with a static IP address on the same subnet. For example: 169.254.254.10, 255.255.0.0. Gateway is not required with direct connect.

Default Panel configuration

- Unit 1 = Primary, N.O. connection
- Unit 2 = Standby, N.O connection
- Failover = Enabled
- Latch Primary Alarm = Enabled
- Latch Primary On = Enabled
- Auto Changeover = Enabled, Wednesday @ 9am
- Temperature Staging = Disabled

CONFIGURATION

To see the available commands and options, type "PTT_CM04P_AC02_TOOLS" and press enter.

To see additional for information for each command option, type

Ex: PTT_CM04P_AC02_TOOLS IPHELP

To see current module configuration,

IPGETCONFIG <ip_address>

Ex: PTT_CM04P_AC02_TOOLS IPGETCONFIG 169.254.254.1

Step 1: Configure module IP address if required.

IPSETIP <existing_ip_address> <new_ip_address> <new_netmask> <new_gateway>

Ex: PTT_CM04P_AC02_TOOLS IPSETIP 169.254.254.1 192.168.1.1 255.255.255.0 192.168.1.254

Step 2: Configure module time. Module will sync with current PC time.

IPSETTIME <ip_address>

Ex: PTT_CM04P_AC02_TOOLS IPSETTIME 169.254.254.1

Step 3: Configure each Unit Cycle Time – default is 10-minutes.

IPSETUNITSCYCLETIME <ip_address> <cycle_minutes>

Ex: PTT_CM04P_AC02_TOOLS IPSETUNITSCYCLETIME 169.254.254.1 5

Step 4: Configure Primary unit's Alarm Delay as "0-600 seconds" - default is 10-seconds.

IPSETALARMDELAY <ip_address> <delay_seconds>

Ex: PTT_CM04P_AC02_TOOLS IPSETALARMDELAY 169.254.254.1 30

Step 5: Configure Primary unit to Latch On in alarm as "0=NO (default)", "1=YES".

IPSETLATCHPRIMARYON <ip_address> <latch_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETLATCHPRIMARYON 169.254.254.1 1

Step 6: Configure each unit's Mode as "0=OFF (default)", "1=ON", "2=STANDBY" or "3=PRIMARY".

IPSETUNIT1MODE <ip_address> <unit_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETUNIT1MODE 169.254.254.1 3

IPSETUNIT2MODE <ip_address> <unit_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETUNIT2MODE 169.254.254.1 2

Step 7: Configure each unit's wiring Connection as "0=Normally Open (default)", "1=Normally Closed".

IPSETUNIT1CONNECTION <ip_address> <unit_connection>

Ex: PTT_CM04P_AC02_TOOLS IPSETUNIT1CONNECTION 169.254.254.1 0

IPSETUNIT2CONNECTION <ip_address> <unit_connection>

Ex: PTT_CM04P_AC02_TOOLS IPSETUNIT2CONNECTION 169.254.254.1 0

Step 8: Configure Failover as "0=DISABLED", "1=ENABLED (default)".

IPSETFAILOVER <ip_address> <fail_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETFAILOVER 169.254.254.1 1

Step 9: Configure Auto Changeover as "0=Disabled (default)", "1=Day of Week" "2=Day of Month" "3=Days".

IPSETAUTOCHANGEOVER <ip_address> <auto_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETAUTOCHANGEOVER 169.254.254.1 3 **Days

Step 10A: Configure Auto Changeover Period as "Day of Week(0-6 0=Sunday)", "Day of Month(1-31)", "Days(1-62)".

IPSETAUTOCHANGEPERIOD <ip_address> <auto_period>

Ex: PTT_CM04P_AC02_TOOLS IPSETAUTOCHANGEPERIOD 169.254.254.1 30 **Days

Step 10B: Configure Auto Changeover Hour as "0-23 (default=0)".

IPSETAUTOCHANGEOVER <ip_address> <auto_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETAUTOCHANGEHOUR 169.254.254.1 12

Step 10C: Configure Auto Changeover Minute as "0-59 (default=0)".

IPSETAUTOCHANGEMIN <ip_address> <auto_minute>

Ex: PTT_CM04P_AC02_TOOLS IPSETAUTOCHANGEHOUR 169.254.254.1 30

Step 11: Configure Temperature Staging as "0=DISABLED (default)", "1=ENABLED".

IPSETTEMPSTAGE <ip_address> <tempstage_mode>

Ex: PTT_CM04P_AC02_TOOLS IPSETTEMPSTAGE 169.254.254.1 1

Step 11A: Configure Temperature Staging Temperature 1 as "45-95 (default=75)".

IPSETTEMPSTAGE1 <ip_address> <temperature>

Ex: PTT_CM04P_AC02_TOOLS IPSETTEMPSTAGE1 169.254.254.1 70

Step 11B: Configure Temperature Staging Temperature 2 as "45-95 (default=80)".

IPSETTEMPSTAGE2 <ip_address> <temperature>

Ex: PTT_CM04P_AC02_TOOLS IPSETTEMPSTAGE2 169.254.254.1 78

Step 11C: Configure Temperature Staging Temperature Range as "0-10 (default=5)".

IPSETTEMPSTAGERANGE <ip_address> <tempstage_range>

Ex: PTT_CM04P_AC02_TOOLS IPSETTEMPRANGE 169.254.254.1 2

COMMANDS

SHOWDEFAULTS

SHOWMODBUSREGISTERS

SHOWBACNETOBJECTS

IP Commands:

IPHELP

IPSCAN

IPGETCONFIG <ip_address>

IPSETIP <existing_ip_address> <new_ip_address> <new_netmask> <new_gateway>

IPSETMODBUS <ip_address> <modbus_address>

IPSETBAUD0 <ip_address> <new_baud_rate0>

IPSETBAUD1 <ip_address> <new_baud_rate1>

IPSETREBOOT <ip_address>

IPSETBUZZER <ip_address>

IPSETBUZZERVOLUME <ip_address> <buzzer_volume>

IPSETTIME <ip_address>

IPSETUNITSCYCLETIME <ip_address> <cycle_minutes>

IPSETLATCHPRIMARYALARM <ip_address> <latch_mode>

IPSETLATCHPRIMARYON <ip_address> <latch_mode>

IPSETALARMDELAY <ip_address> <delay_seconds>

IPSETUNIT1MODE <ip_address> <unit_mode>

IPSETUNIT1CONNECTION <ip_address> <unit_connection>

IPSETUNIT2MODE <ip_address> <unit_mode>

IPSETUNIT2CONNECTION <ip_address> <unit_connection>

IPSETFAILOVER <ip_address> <fail_mode>
 IPSETAUTOCHANGEVER <ip_address> <auto_mode>
 IPSETAUTOCHANGEPERIOD <ip_address> <auto_period>
 IPSETAUTOCHANGEHOUR <ip_address> <auto_hour>
 IPSETAUTOCHANGEMIN <ip_address> <auto_minute>
 IPSETTEMPSTAGE <ip_address> <tempstage_mode>
 IPSETTEMPSTAGE1 <ip_address> <temperature>
 IPSETTEMPSTAGE2 <ip_address> <temperature>
 IPSETTEMPSTAGERANGE <ip_address> <tempstage_range>

Options:

<baud_rate0>
 9600 19200 38400
 <baud_rate1>
 9600 19200 38400 56000 115200
 <modbus/mstp_address>
 Modbus=1-254 MSTP=1-126
 <buzzer_volume>
 1=LOW 2=MED 10=HIGH (1-10)
 <cycle_minutes>
 0-59
 <latch_mode>
 0=No 1=Yes
 <delay_seconds>
 0-599
 <unit_mode>
 0=Off 1=On 2=Standby 3=Primary
 <unit_connection>
 0=Normally Open 1=Normally Closed
 <fail_mode>
 0=Disabled 1=Enabled
 <auto_mode>
 0=Disabled 1=Day of Week 2=Day of Month 3=Days
 <auto_period>
 Day of Week(0-6) Day of Month(1-31) Days(1-62)
 <auto_hour>
 0-23
 <auto_minute>
 0-59
 <tempstage_mode>
 0=Disabled 1=Enabled
 <temperature>
 45-95
 <tempstage_range>
 0-10

COMMANDS HELP

IPHELP
 Show HELP for IP commands
 IPSCAN
 Scan available IP addresses for module - local subnets only
 IPGETCONFIG <ip_address>
 Get module configuration
 IPSETIP <existing_ip_address> <new_ip_address> <new_netmask> <new_gateway>

Set module IP address configuration
IPSETMODBUS <ip_address> <modbus_address>
Set module Modbus address
IPSETBAUD0 <ip_address> <new_baud_rate0>
Change module baud rate
IPSETBAUD1 <ip_address> <new_baud_rate1>
Change module baud rate
IPSETREBOOT <ip_address>
Reboot module
IPSETBUZZER <ip_address>
Silence Buzzer
IPSETBUZZERVOLUME <ip_address> <buzzer_volume>
Configure Buzzer Volume
IPSETTIME <ip_address>
Sync module time with PC time
IPSETUNITSCYCLETIME <ip_address> <cycle_minutes>
Configure units cycle On/Off time
IPSETLATCHPRIMARYALARM <ip_address> <latch_mode>
Configure latch primary alarm
IPSETLATCHPRIMARYON <ip_address> <latch_mode>
Configure latch primary on
IPSETALARMDELAY <ip_address> <delay_seconds>
Configure alarm delay
IPSETUNIT1MODE <ip_address> <unit_mode>
Configure unit 1 mode
IPSETUNIT1CONNECTION <ip_address> <unit_connection>
Configure unit 1 wiring connection
IPSETUNIT2MODE <ip_address> <unit_mode>
Configure unit mode
IPSETUNIT2CONNECTION <ip_address> <unit_connection>
Configure unit 1 wiring connection
IPSETFAILOVER <ip_address> <fail_mode>
Configure failover operation
IPSETAUTOCHANGEOVER <ip_address> <auto_mode>
Configure autochangeover operation
IPSETAUTOCHANGEPERIOD <ip_address> <auto_period>
Configure autochangeover period
IPSETAUTOCHANGEHOUR <ip_address> <auto_hour>
Configure autochangeover hour
IPSETAUTOCHANGEMIN <ip_address> <auto_minute>
Configure autochangeover minute
IPSETTEMPSTAGE <ip_address> <tempstage_mode>
Configure temperature staging operation
IPSETTEMPSTAGE1 <ip_address> <temperature>
Configure stage 1 temperature
IPSETTEMPSTAGE2 <ip_address> <temperature>
Configure stage 2 temperature
IPSETTEMPSTAGERANGE <ip_address> <tempstage_range>
Configure temperature range

EXAMPLE CONFIGURATION

Model: CM04P (74-10)
Serial #: 000214C5
Firmware Version: 53.1
Hardware Version: 10
Current Module Time: Tuesday 11-03-2020 13:21:32

IP Mode: STATIC
IP Address: 169.254.254.1
Netmask: 255.255.0.0
Gateway: 169.254.254.254

Modbus/BACnet MSTP Address: 2
Baud Rate0: 19200
Protocol0: BACnet MSTP
Baud Rate1: 19200
Protocol1: Modbus/RTU

Setpoints:
Buzzer = On
Buzzer Volume = 3
Unit Cycle Time = 10
Primary Alarm Delay = 5
Latch Primary Alarm = Yes
Latch Primary On = Yes
Unit 1 Mode = Primary
Unit 1 Connection = Normally Open
Unit 2 Mode = Standby
Unit 2 Connection = Normally Open

Failover Mode = On
Autochangeover Mode = Day of Week
Autochangeover Period = 3
Autochangeover Hour = 09
Autochangeover Minute = 00
Temperature Staging Mode = Off
Temperature Stage 1 = 75
Temperature Stage 2 = 80
Temperature Range = 5

Status:
Unit 1 = On
Unit 2 = Off
Unit Hold = Off
Summary Alarm = Off
Unit 1 Alarm = Off
Unit 2 Alarm = Off
Buzzer = Off
Temperature = 73.94
Stage = 0

Contacts

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