PMS Interfacing with Netcom Reference Guide

Disclaimer

Content

1 Overview

Installed on an INNCOM server, the Netcom software program handles serial communication between the INNCOM server computer and devices such as a property's Property Management System (PMS) server and F239-based riser bridges.

This document covers setting up a serial PMS connection between the INNCOM server and a hotel's server where the INNCOM server is running the IWAN software suite, particularly the Netcom, WinP5PT and INNControl II software programs.

As of 05-Nov-2008, Netcom only supports RS-232 serial communication with the following PMS vendors:

Micros Opera, (also called Opera)

Fidelio

Libeca

Agilysys

Fosse (Marriot)

Hilton 21, Hilton

OnQue

Springer Miller (RS-232 Serial)

Scientific-Atlanta

Visual One /Comtrol (Scientific-Atlanta)

Maestro (Scientific-Atlanta)

Encore

HIS

HSI

HSS

MSI

Galaxy

LMS/IAD

Typical serial cable wiring examples are displayed on page 3 showing details on the serial cable used to connect the Inncom and PMS servers.

2 PMS Support Protocols

Table 1 lists the INNCOM PMS protocol that must be activated in Netcom to support the particular PMS vendor.

Table 1 Inncom PMS Protocols Supported By InnControl 2 / Netcom

PMS Vendor	Inncom PMS Protocol Used	Connection Method to Netcom	Netcom Version Required
Micros Opera, (also called Opera)	BAT	RS232 Serial Only	Netcom V 1.21 or later*
Fidelio	BAT	RS232 Serial Only	Netcom V 1.21 or later*
Libeca	BAT	RS232 Serial Only	Netcom V 1.21 or later*
Agilysys	BAT	RS232 Serial Only	Netcom V 1.21 or later*
Hilton 21, Hilton	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
OnQue	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
Springer Miller (RS-232 Serial)	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
Scientific-Atlanta	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
Visual One/Comtrol	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
Maestro (Scientific-Atlanta)	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
Encore	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
Fosse (Marriot)	Sci-Atlanta	RS232 Serial Only	Netcom V 1.23 or later
HIS	PM	RS232 Serial Only	Netcom V 1.15 or later*
HSI	PM	RS232 Serial Only	Netcom V 1.15 or later*
HSS	PM	RS232 Serial Only	Netcom V 1.15 or later*
MSI	PM	RS232 Serial Only	Netcom V 1.15 or later*
Galaxy	PM	RS232 Serial Only	Netcom V 1.15 or later*
LMS/IAD	PM	RS232 Serial Only	Netcom V 1.15 or later*

* If even or odd parity is required for the RS-232 serial communication with the PMS server computer, Netcom version 1.23 or later is required.

3 Connectors

Typical serial cable wiring examples showing details on the serial cable used to connect the Inncom and PMS servers are presented below.

1. Inncom server has DB-9 Female serial port connector and PMS server has DB-9 Female serial port connector.

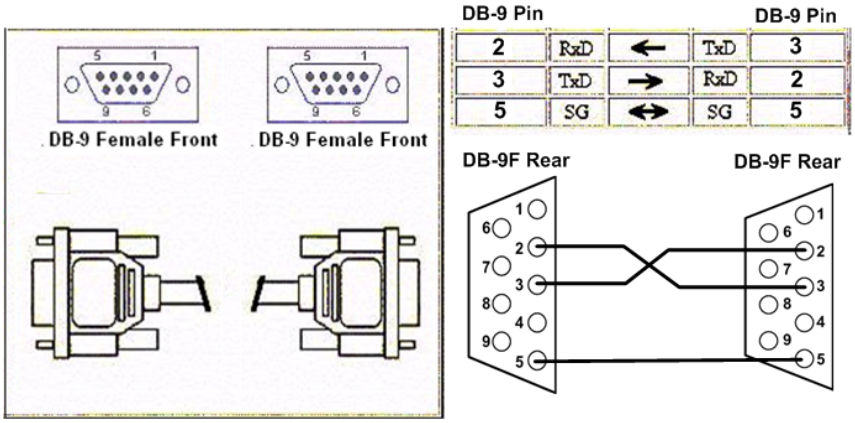


Figure 1 DB-9 Female/DB-9 Female

2. Inncom server has DB-9 Female serial port connector and PMS server has DB-25 Female serial port connector

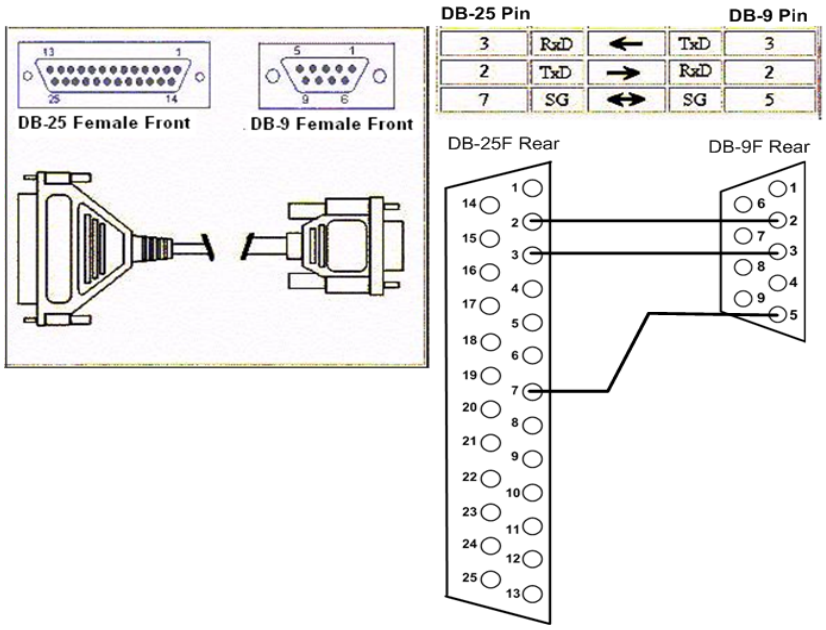
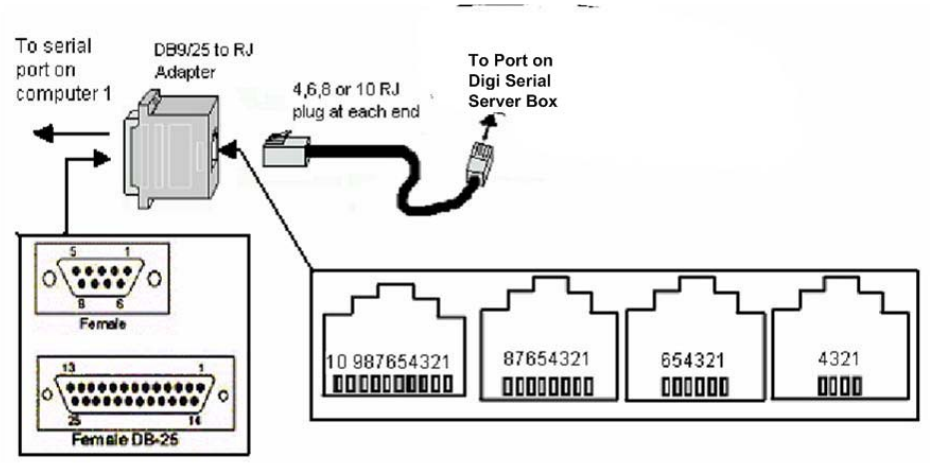


Figure 2 DB-9 Female/DB-25 Female

3. Inncom server has DB-9 Female serial port connector and PMS server has Digi Serial Port Adapter Box. Pin out the DB9/RJ adapter according to the table below and use a "straight-through" RJ ribbon cable to connect the desired port on the Digi adapter box to the DB-9/RJ adapter.



Modular Adapter DB Pinout	DB9	DB25	RJ45 10 Pin	RJ12 8 Pin	RJ12 6 Pin	RJ11 4 Pin	Modular Adapter RJ Socket Pinout
Rx	2	3	5	4	3	2	Tx
Tx	3	2	6	5	4	3	Rx
Gnd	5	7	7	6	5	4	Ground

Figure 3 DB-9 Female/Digi Serial Port Adapter

4 Configuration

1. Determine the type of PMS interface used by the property (refer to Table 1) and determine if this type of PMS is currently supported by the NETCOM version installed. If supported, note the Inncom PMS Protocol used for the particular PMS type in Table 1. For example, if the PMS vendor is Hilton 21 , the PMS protocol is Sci-Atlanta. If the Netcom version is too old and does not support the particular PMS interface, upgrade the Netcom software to a newer version that does support the PMS type.
2. Open the **Netcom.cfg** script file using Notepad or other text editor. Browse to *C:\Inncom\Scripts* (or the path to where the Netcom script file is located) , double-click on **Netcom.cfg** and select the option to open it with the text editor.
3. Look down through the contents of the file to the ComPortDriver section. Typically, there will already be several ComPortDriver line items; a line is NOT active if a semicolon (;) proceeds it. In the example shown below, none of the line items are active.

   - To activate a PMS link, remove the semicolon at the beginning of the appropriate line (uncomment) for the desired PMS type. Edit/change the COM # and serial port settings. The ONLY sections of the particular line item that should be changed are the Com Port#, Baud Rate, Data Bits, Parity and Stop Bits. These items are indicated by bold text in the examples below. DO NOT CHANGE any other section of the line. The examples shown below should work for most applications.
   - Typically the PM and BAT protocols use 9600 baud, 8 data bits, no parity and 1 stop bit. Please confirm with the particular property to confirm the settings.
   - The Sci-Atlanta protocol is typically either 9600 baud, 8 data bits, no parity and 1 stop bit or 1200 baud, 7 data bits, odd parity and 1 stop bit. Please confirm with the particular property to confirm the settings.

```
;-----------------------------------------------------------------------
; ComPortDriver
;-----------------------------------------------------------------------
; Installs a number of statically configured COM port drivers.
;-----------------------------------------------------------------
; Parameters:
;  com_port (COM1, COM2, ...), keep the com_port a unique!
;  logical_name ("TCS", "PMS90", ...), keep the logical_name a unique!
;  share_flag (0=non shared, 1=shared)
;  static_flag (0=dynamic, 1=static)
;  baud_rate (300, 600, ..)
;  data_bits (7, 8)
;  parity ( n (none), e (even), o (odd) )) — make sure the n , e , or o is lower case
;         Netcom version must be 1.23 or later to support even or odd parity
;  stop_bits (1, 2)
;  protocol (see NetComDef.h)
;  DriverID (protocol specific)
;-------------------------------------------------------------------
;ComPortDriver=COM1,"PMPMS90",   0,1,9600,8,n,1,5,0
;ComPortDriver=COM2,"BAT_OUT",   0,1,9600,8,n,1,6,0
;ComPortDriver=COM3,"TCS",       1,0,9600,8,n,1,3,0
;ComPortDriver=COM4,"COM4",      0,0,9600,8,n,1,1,0
;ComPortDriver=COM5,"BIGCOM",    0,1,9600,8,n,1,4,0
;ComPortDriver=COM1,"B271R_1",   0,1,9600,8,n,1,7,1
;ComPortDriver=COM1,"BATPMS90",  0,1,9600,8,n,1,8,0
;ComPortDriver=COM1,"SCI_ATL",   0,1,9600,8,n,1,9,0
;ComPortDriver=COM1,"FPS",       0,1,9600,8,n,1,10,0
```

Un-comment the following line if **HIS , HSI , HSS , MSI , Galaxy or LMS/IAD:**
ComPortDriver=COM**1**,"PMPMS90", 0,1,**9600,8,n**,**1**,5,0

Un-comment the following line if **Micros Opera , Fidelio , Agilysys or Libeca:**
ComPortDriver=COM**1,**"BATPMS90", 0,1**,9600,8,n,1,**8,0

Un-comment the following line if **Hilton 21 (or Hilton or Hilton OnQue) , OnQue , Scientific Atlanta, Fosse ,Encore,Maestro or VisualOne/Comtrol.** Note that the Baud Rate, Stop Bits and Parity are typically are one of the following:

ComPortDriver=COM**1,**"SCI_ATL", 0,1**,1200,7,o,1**,9,0
OR
ComPortDriver=COM**1**,"SCI_ATL", 0,1**,9600,8,n,1**,9,0

4. Once the appropriate change has been made to the selected line in the ComPortDriver section and the line is un-commented , SAVE the **Netcom.cfg** file to its current location (typically *C:\Inncom\Scripts\Netcom.cfg*), overwriting the existing file.

5. Shutdown and restart Netcom for the change to take effect. Netcom runs as a Service. Use the Watchdog application manager if installed on the computer to doensure that it is. Alternatively, the Windows Task Manager to stop , then manually re-start Netcom.

6. If the correct serial cable has already been connected, use the **Tracer.exe** program to monitor serial traffic between the Inncom server and the PMS server; verify that PMS commands are correctly being sent by the PMS server and are being accepted by the Inncom server. **Tracer.exe** should be located in the *C:\Inncom\Bin* folder. A desktop shortcut may already have been created for **Tracer** (Figure 4); double-click it to start the program. Otherwise, browse to the *C:\Inncom\Bin* folder (Figure 5) and double-click on **Tracer.exe**.

Figure 4 Tracer.exe shortcut

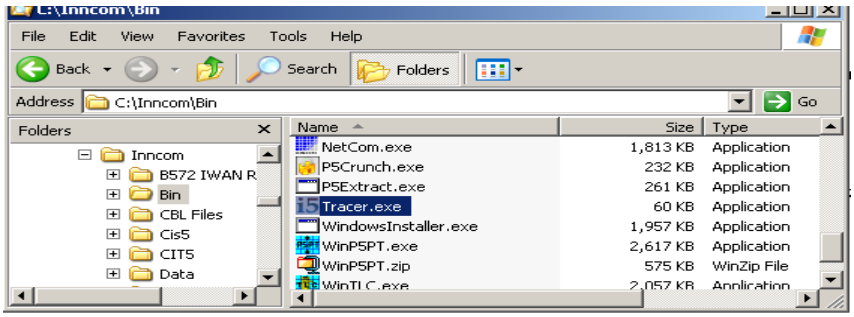


Figure 5 Tracer.exe Location

The Tracer window shown in Figure 6 should open.

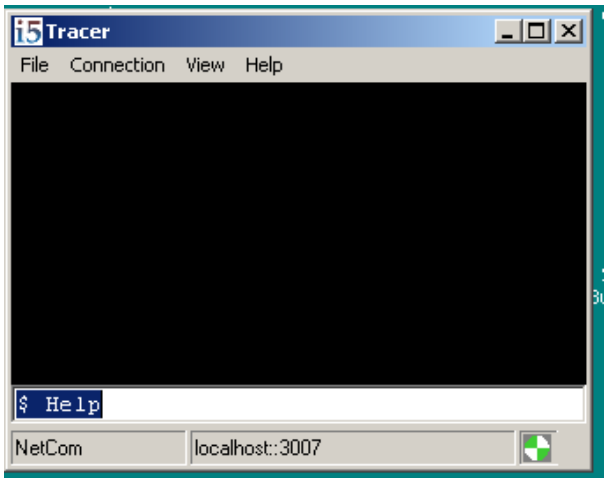


Figure 6 Tracer Window

To trace the PMS related messages, enter "$ trace pms" in the text entry field at the bottom of the Trace window, then hit the Enter key (Figure 7).

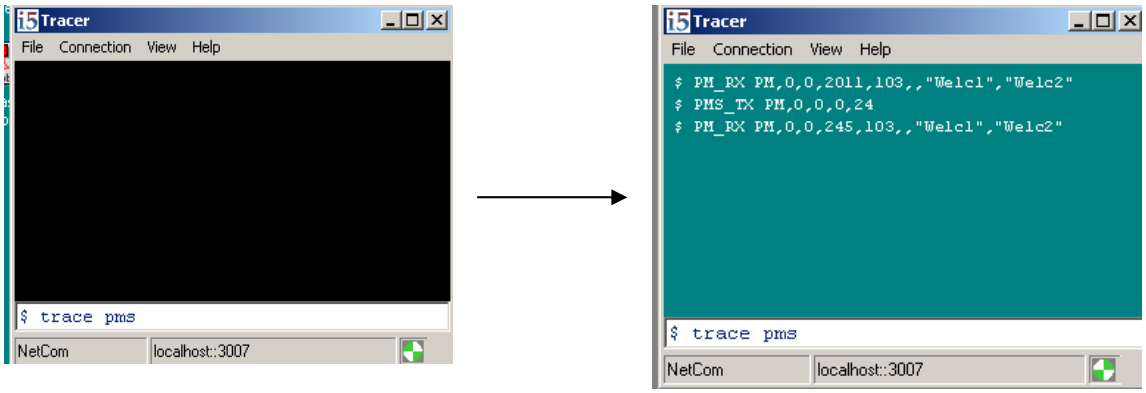


Figure 7 Enter Trace command

7. What should appear in the Trace window for the three types of PMS protocols:

For PM Protocol PMS (HIS , HSI , HSS , MSI , Galaxy or LMS/IAD)
X—Sequence # but typically not used and = 0 YY—Usually Guest Name ZZ—Usually blank

For a room Check-In:	**$ PM_RX PM , X , X , RoomID , 103 , X , "YY" , "ZZ"**
For a room Check-Out:	**$ PM_RX PM , X , X , RoomID , 104**
To set a room to Rented:	**$ PM_RX PM , X , X , RoomID , 101**
To set a room to Un-Rented:	**$ PM_RX PM , X , X , RoomID , 102**

"Beacon" message sent by : Inncom Server to verify PMS Server is online. PMS server should immediately reply with the same message	**$ PM_TX PM , 0 , 0 , 0 , 24**	sent by Inncom
	$ PM_RX PM , 0 , 0 , 0 , 24	reply from PMS server

Complete room update. Inncom requests a complete update of the rental status of all rooms. PMS server replies by sending a series of 101 or 102 commands to set the rental state of all rooms	**$ PM_TX PM , 0 , 0 , 0, 110**	INNCOM requests full room update
	$ PM_RX PM , X , X , 201 , 101	PMS—set room 201 Rented
	$ PM_RX PM , X , X , 202 , 102	PMS—set room 202 Un-Rented
	$ PM_RX PM , X , X , 203 , 101	PMS—set room 203 Rented
	$ PM_RX PM , X , X , 204 , 101	PMS—set room 204 Rented
	$ PM_RX PM , X , X , 210 , 102	PMS—set room 210 Un-Rented

For BAT Protocol PMS (Micros Opera , Fidelio, Agilysys or Libeca)

YY—Usually Guest Name

For a room Check-In:	**$ BAT_RX ZONE=RoomID:PAR=WELCOME1:SET="YY":BAT=CHECKIN**
For a room Check-Out:	**$ BAT_RX ZONE=RoomID:BAT=CHECKOUT**
To set a room to Rented:	**$ BAT_RX ZONE=RoomID:BAT=RENTED**
To set a room to Un-Rented:	**$ BAT_RX ZONE=RoomID:BAT=UNRENTED**

Complete room update. INNCOM requests a complete update of the rental status of all rooms. PMS server replies by sending a series of commands to set the rental state of all rooms	**$ ZONE="HOTEL":MSG="RM_STAT?"**	INNCOM requests full update
	$ ZONE=201:BAT=RENTED	PMS—set room 201 Rented
	$ ZONE=202:BAT=RENTED	PMS—set room 202 Rented
	$ ZONE=203:BAT=UNRENTED	PMS—set room 203 Un-Rented
	$ ZONE=204:BAT=RENTED	PMS—set room 204 Rented
	$ ZONE=2011:BAT=UNRENTED	PMS—set room 2011 Un-Rented

For Sci-Atlanta Protocol PMS (Hilton21 , Hilton OnQue , Hilton , OnQue , Scientific Atlanta , Fosse, Maestro or VisualOne/Comtrol)

XXXX—Room ID. If room ID length <4, a 0 or space can be inserted. 0101 or 101 will work
Y—1 digit checksum that is the right-most digit of the sum of the room ID digits
Room ID = 345 , sum=12 so checksum =2
Room ID = 2050 , sum=7 so checksum =7

To set a room to Rented:	$ PMS_SCIAT_RX EXXXXY
To set a room to Un-Rented:	$ PMS_SCIAT_RX VXXXXY

Examples: Set room 306 Rented $ PMS_SCIAT_RX E03069
Set room 6751 Un-Rented $ PMS_SCIAT_RX V67528