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ADAM-5510 Series

PC Based Programmable Controller

Startup Manual

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1 System Requirements

1.1 Host Computer Requirements

- IBM PC compatible computer with 486 CPU (Pentium is recommended).
- Microsoft Windows 95/98/NT4.0 SP4/2000 or higher versions.
- Borland C++ 3.0 for DOS
- At least 32 MB RAM.
- 20 MB of hard disk space available
- VGA color monitor.
- CD-ROM.
- Mouse or other pointing devices.
- At least one standard RS-232 port (e.g. COM1, COM2).

1.2 ADAM-5510 Series Requirements

- One ADAM-5510 Series main unit, i.e., ADAM-5510M, ADAM-5510E, ADAM-5510/TCP or ADAM-5510E/TCP.
- One ADAM-5510 Series Startup Manual
- One core clamp for power supply connection.
- One ADAM Products Utilities CD.
- Power supply for ADAM-5510 Series (+10 to +30 VDC unregulated)
- One RS-232 straight through DB-9 cable
- One null modem adaptor or cable with DB-9 connectors

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1.3 I/O Module Requirements

At least one I/O module is needed to use the system. A variety of I/O modules are available to meet different application requirements. Table 1.1 gives a current listing of these modules for your reference.

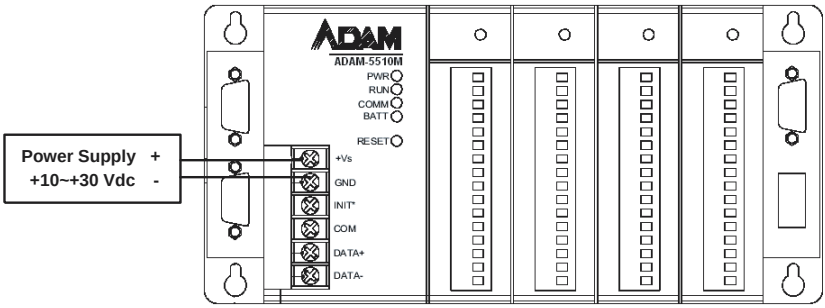
Table 1.1: I/O Module Support List

Module	Name	Specification	Reference
Analog I/O	ADAM-5013	3-ch. RTD input	Isolated
	ADAM-5017	8-ch. AI	Isolated
	ADAM-5017H	8-ch. High speed AI	Isolated
	ADAM-5018	7-ch. Thermocouple input	Isolated
	ADAM-5024	4-ch. AO	Isolated
Digital I/O	ADAM-5050	7-ch. D I/O	Non-isolated
	ADAM-5051	16-ch. DI	Non-isolated
	ADAM-5051D	16-ch. DI w/LED	Non-isolated
	ADAM-5051S	16-ch. Isolated DI w/LED	Isolated
	ADAM-5052	8-ch. DI	Isolated
	ADAM-5055S	16-ch. Isolated DI/O w/LED	Isolated
	ADAM-5056	16-ch. DO	Non-isolated
	ADAM-5056D	16-ch. DO w/LED	Non-isolated
	ADAM-5056S	16-ch. Isolated DO w/LED	Isolated
	ADAM-5056SO	16-ch. Iso. DO w/LED (source)	Isolated
Relay Output	ADAM-5060	6-ch. Relay output	Isolated
	ADAM-5068	8-ch. Relay output	Isolated
	ADAM-5069	8-ch. Power Relay output	Isolated
Counter/Frequenc	ADAM-5080	4-ch. Counter/Frequency	Isolated
Serial I/O	ADAM-5090	4-port RS232	Non-isolated

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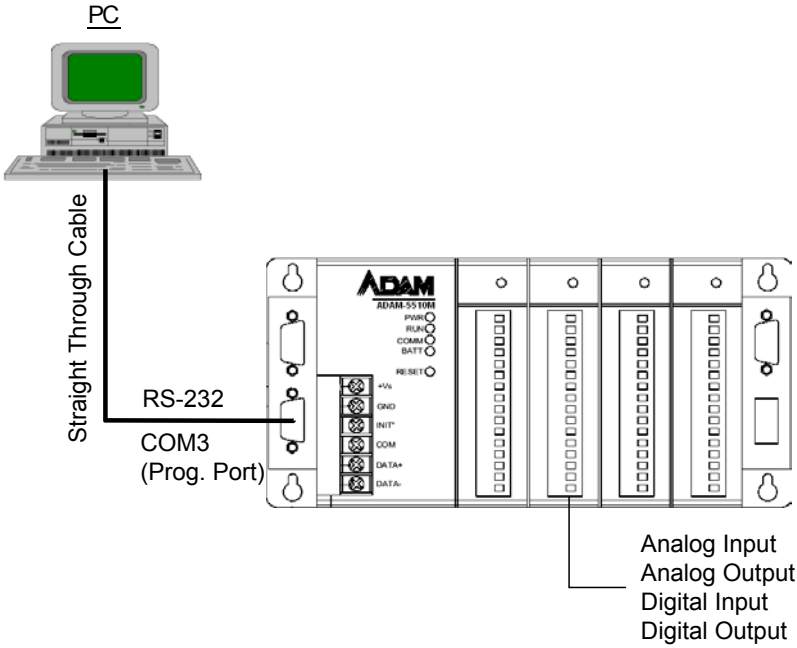
2 Hardware Installation

2.1 Power Wiring



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2.2 Programming Port Wiring



PC COM Port		Straight Through Cable	ADAM-5510 Series COM3	
CD	**1**		**1**	**N/A**
RX	**2**	———	**2**	**TX**
TX	**3**	———	**3**	**RX**
DTR	**4**		**4**	**N/A**
GND	**5**	———	**5**	**GND**
DSR	**6**		**6**	**N/A**
RTS	**7**		**7**	**N/A**
CTS	**8**		**8**	**N/A**
RI	**9**		**9**	**N/A**

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2.3 Jumper Settings

DIP Switch of ID Address:

DIP	SW1	SW2	SW3	SW4	SW5
ON	1	2	4	8	16
OFF	0	0	0	0	0

ID Address = Value of (SW1+SW2+SW3+SW4+SW5)

COM Port Selection for Configuration Tool:

DIP	SW6
ON	COM1/RS-232
OFF	COM2/RS-485

SW7 and SW8 are reserved for future use.

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3 I/O Module Configuration

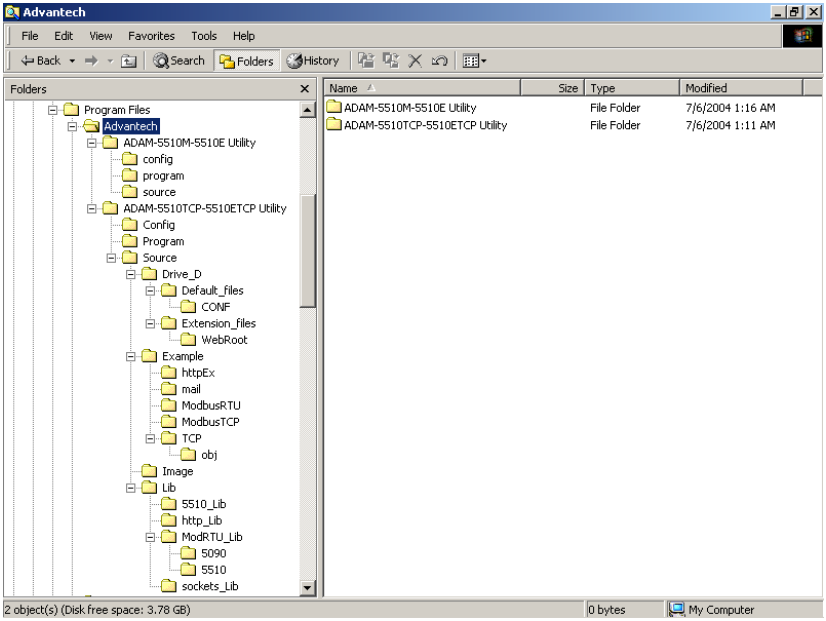
3.1 Install ADAM-5510 Series Utility

1. Insert the ADAM Products CD and setup the ADAM-5510 Series Utility.
2. After the ADAM-5510 Series Utility has been installed, you will find two directories under “C:\Program Files\Advantech\” directory. They are named “ADAM-5510M-5510E Utility” and “ADAM-5510TCP-5510ETCP”.

   If you are using ADAM-5510M or ADAM-5510E, you have to use the files under the “ADAM-5510M-5510E Utility” directory.

   If you are using ADAM-5510/TCP or ADAM-5510E/TCP, you have to use the files under the “ADAM-5510TCP-5510ETCP Utility” directory.

   The directory structure is shown below:.

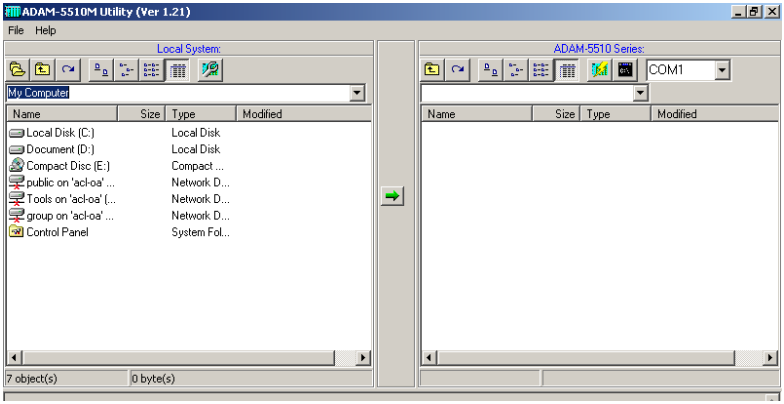


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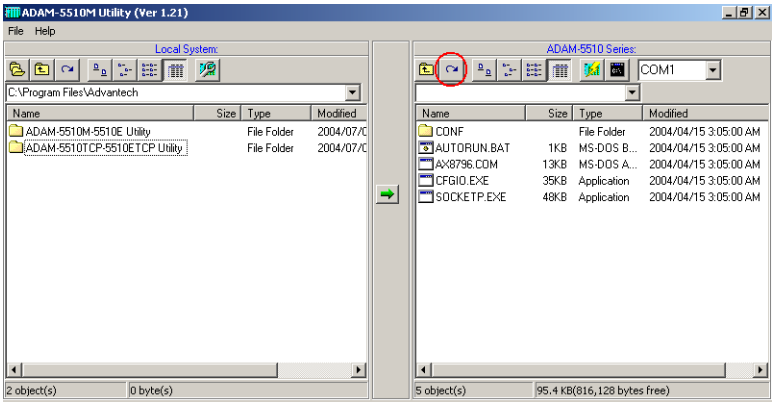
3.2 Configure I/O Modules by ADAM-5510 Series Utility

The following steps will use ADAM-5510/TCP as an example to demonstrate how to configure the ADAM-5017 Analog Input Module.

1. Please click the “Program” directory under “ADAM-5510TCP-5510ETCP Utility” and run “ADAM5510.EXE”, which is the ADAM-5510 Series Utility. You will see the following figure.

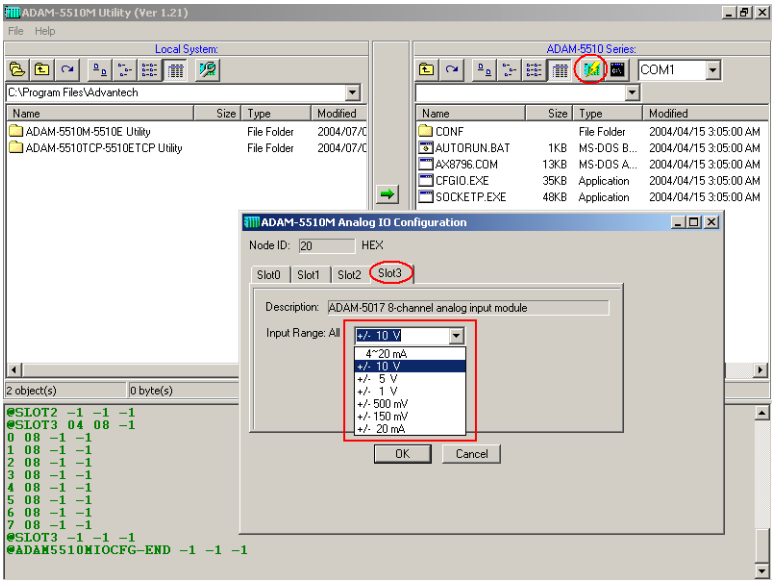


2. Click the refresh button to check if the drive D: of ADAM-5510TCP is detected correctly.

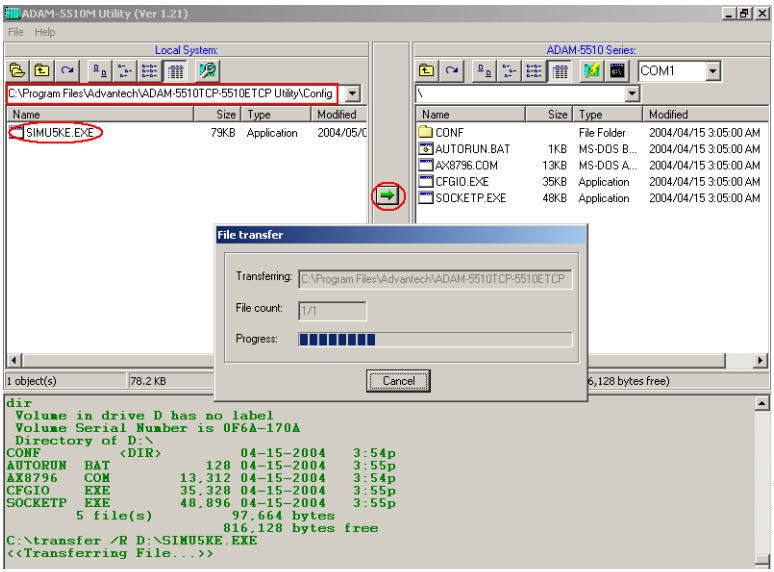


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3. Click the refresh button to check if the D drive of ADAM-5510TCP is detected correctly.



4. Download the I/O Module Configuration Tool “SIMU5KE.EXE” under the “Config” directory onto drive D: of ADAM-5510/TCP.



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5. Set DIP SW6 as ON.

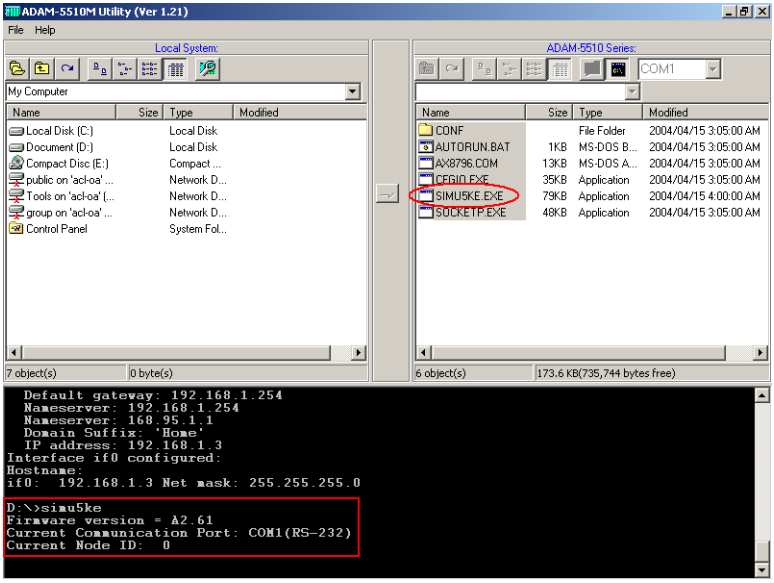
COM Port Selection for Configuration Tool:

DIP	SW6
ON	COM1/RS-232

6. Set DIP SW1 to SW5 as OFF.
ID Address = 0

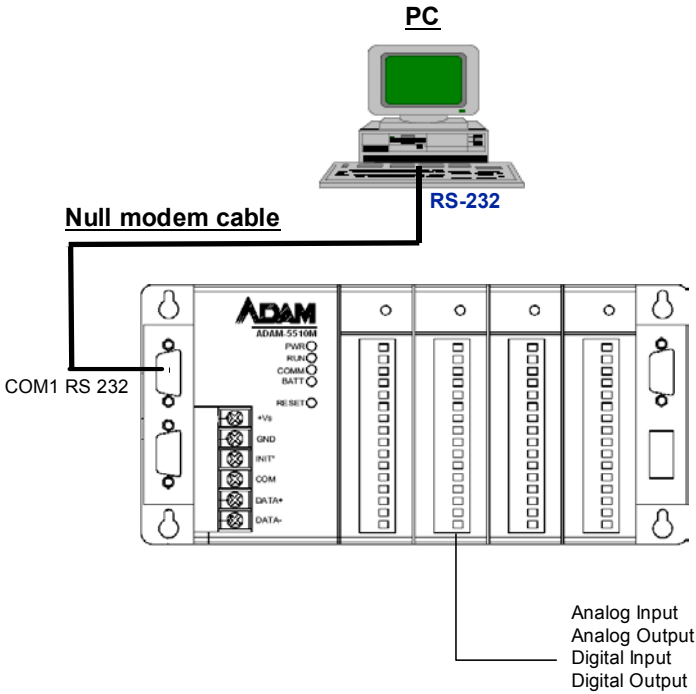
DIP	SW1	SW2	SW3	SW4	SW5
OFF	0	0	0	0	0

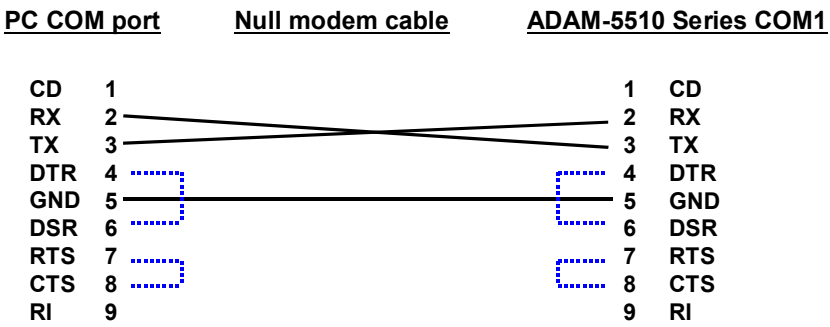
7. Run “SIMU5KE.EXE” and check the Communication Tool does use COM1/RS-232 port.



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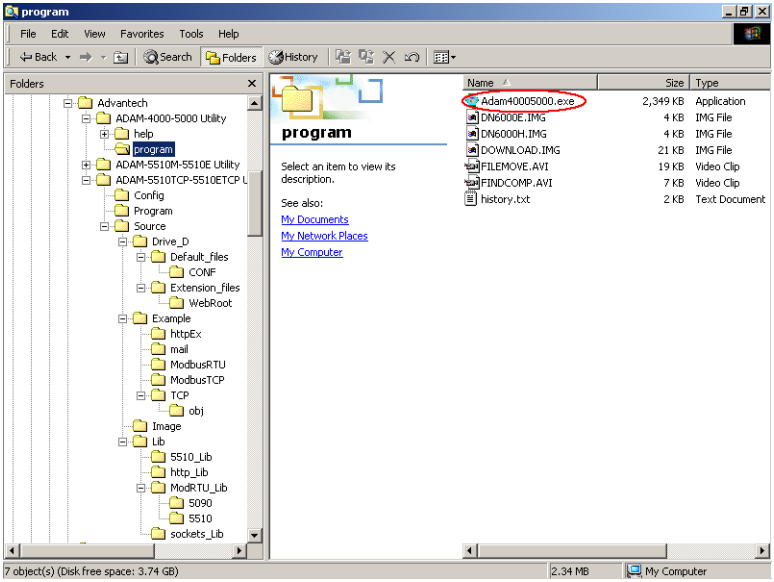
8. Connect the Host PC to COM1/RS-232 on ADAM-5510/TCP by a null modem cable.



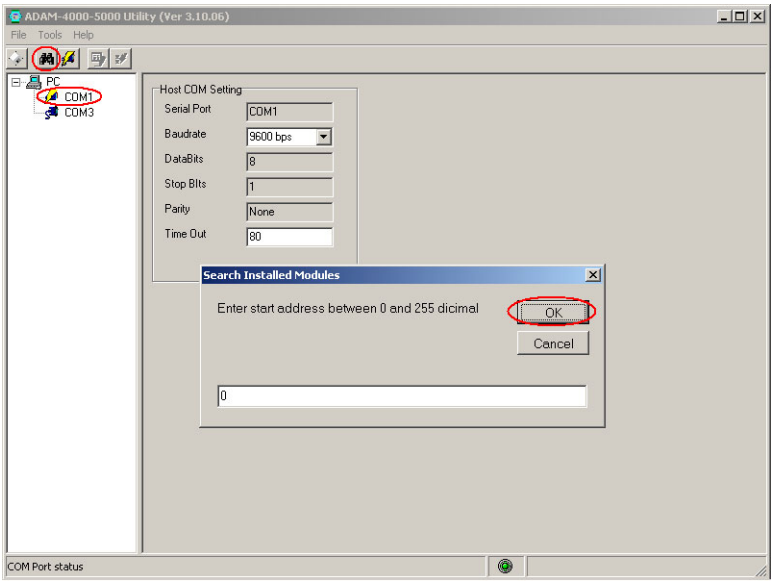


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9. Insert the ADAM Products CD and setup the ADAM-4000-5000 Utility.

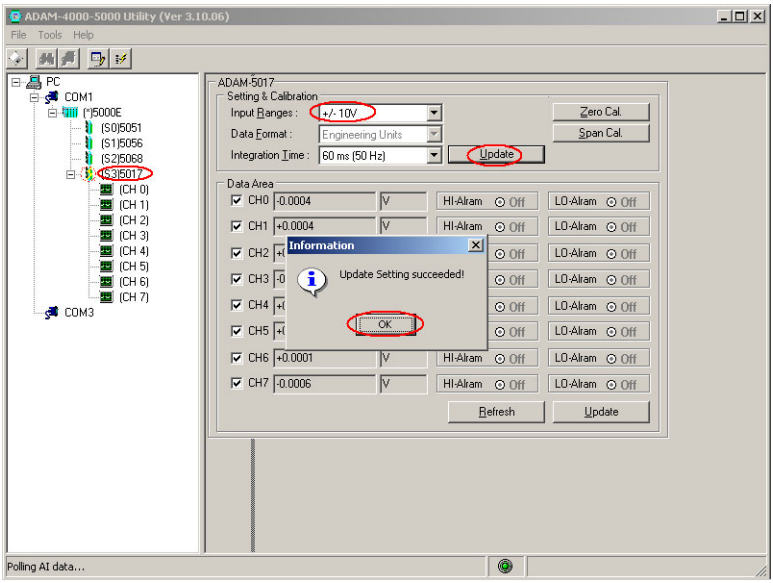


10. Close the ADAM-5510 Series Utility and run ADAM-4000-5000 Utility “ADAM40005000.EXE”.



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11. Search the ADAM-5510/TCP Module and configure the input range of the ADAM-5017 Analog Input Module.



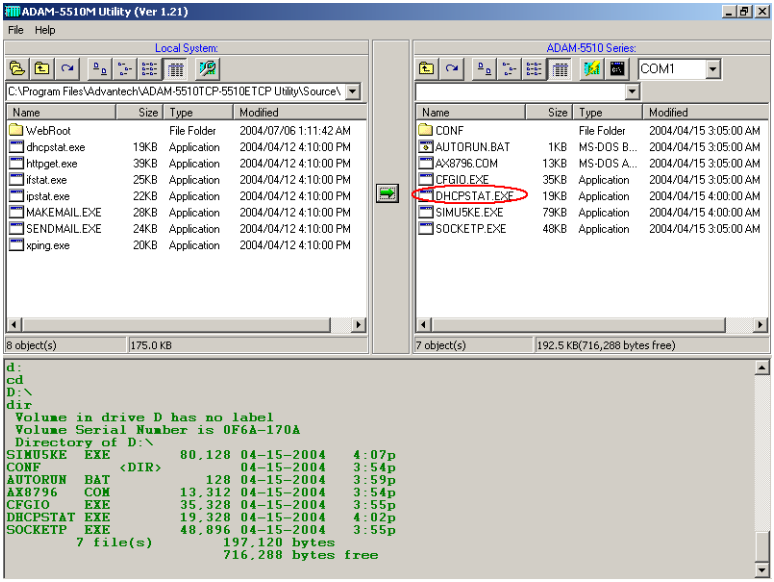
12. Close the ADAM-4000-5000 Utility and reset the ADAM-5510/TCP.

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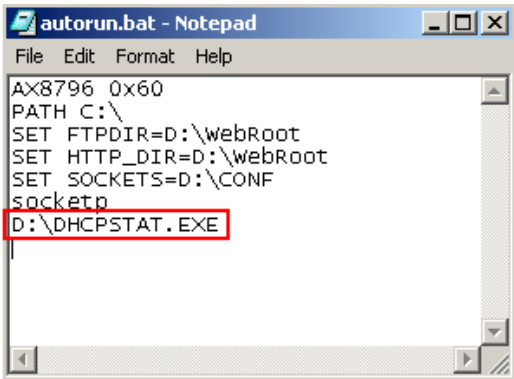
4 Application Execution at Bootup

The following steps will demonstrate how to automatically execute an application after bootup. All that needs to be done is to update “AUTO-RUN.BAT” and run “DHCPSTAT.EXE” automatically after boot up.

1. Download the “DHCPSTAT.EXE” onto ADAM-5510/TCP.

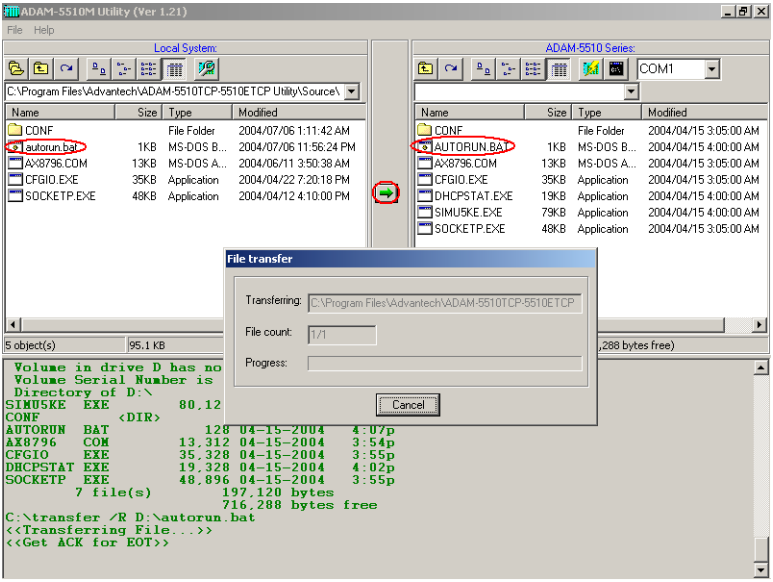


2. Edit “AUTORUN.BAT” under “Source\Drive_D\Default_Files” directory.

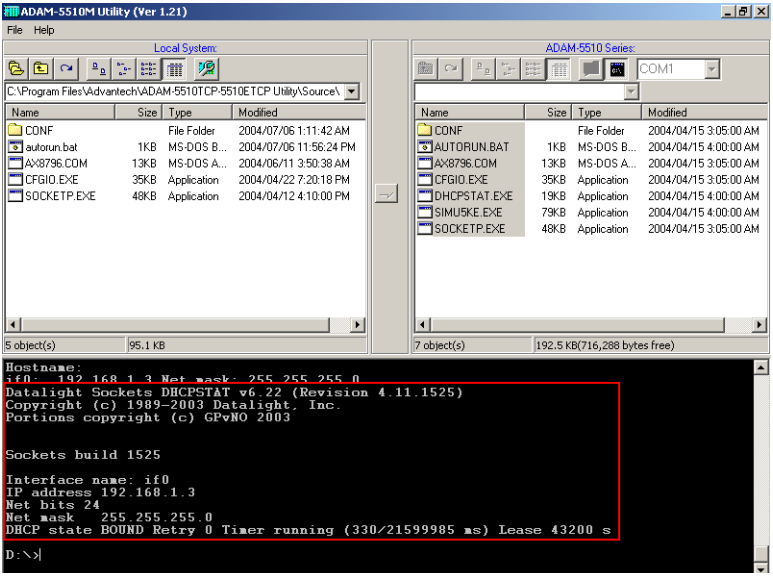


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3. Update “AUTORUN.BAT” to ADAM-5510/TCP in the utility.



4. Reset ADAM-5510/TCP and check if the “DHCPSTAT.EXE” has been executed correctly.



5. You are finished!

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