

5. Run *profiler* from the command prompt or double-click *profiler.exe* from Microsoft Windows Explorer.

By default, Modbus Profiler uses the communication port specified in the [Connection] section of the *profiler.ini* file. If *profiler* fails to connect using this communication port, you are prompted with a list of alternate communication ports. You may also edit the **Port=** value in the [Connection] section of the *profiler.ini* file to change the default value.

6. Modbus Profiler creates an output file named *profiler.csv* in the directory where the Modbus Profiler tool is located.

Before the program exits, you are prompted to view the data.

The comma delimited file can be easily imported into Microsoft Excel for viewing of the Modbus data. This data is used to create the necessary template files on your Building Management System for polling the desired UPS information.



**NOTE** *Modbus Profiler does not provide Modbus data for the Powerware 9315 Series UPS. Powerware 9315 configuration-specific profiles are available in the directory where the Modbus Profiler tool is located (refer to the 950\*.pdf files).*

## Example Modbus Profiler Output Files

The following tables are sample Modbus Profiler output files for a Powerware 9315 Reverse Transfer (RT) Single Module UPS. Refer to the Master Modbus Register Map for a complete list of the Status, Alarm, and Meter data for all Powerware UPS equipment (open the *reg\_map.pdf* file in the directory where the Modbus Profiler tool is located).

**Table 4. Read Input Status - Modbus Function Code 02 (Inputs Start at 10000)**

Register	Name	Value	Format	Unit
1	On Battery	0	BOOL	Status
10	On Bypass	1	BOOL	Status
11	System Normal	0	BOOL	Status
16	UPS Off	0	BOOL	Status
<b>NOTE</b> <i>Registers 1–16 are mutually exclusive.</i>				
112	Rectifier Status	1	BOOL	Status

Register	Name	Value	Format	Unit
113	Rectifier Input Status	1	BOOL	Status
114	Bypass Status	0	BOOL	Status
115	Bypass Input Status	1	BOOL	Status
116	Input Circuit Breaker Status (CB1)	1	BOOL	Status
117	Battery Disconnect Status	1	BOOL	Status
118	Inverter Disconnect Status	1	BOOL	Status
119	Inverter Status	1	BOOL	Status
120	UPM Normal	0	BOOL	Status
121	UPM On Battery	0	BOOL	Status
122	UPM Bypass (Off Line)	0	BOOL	Status
123	UPM Notice	0	BOOL	Status
124	UPM Alarm	0	BOOL	Status
125	UPM Standby	0	BOOL	Status
144	Inverter AC over voltage	0	BOOL	Status
145	Inverter AC under voltage	0	BOOL	Status
146	Inverter under or over frequency	0	BOOL	Status
147	Bypass AC over voltage	0	BOOL	Status
148	Bypass AC under voltage	0	BOOL	Status
149	Bypass under or over frequency	0	BOOL	Status
150	Input AC over voltage	0	BOOL	Status
151	Input AC under voltage	0	BOOL	Status
152	Input under or over frequency	0	BOOL	Status
153	Output AC over voltage	0	BOOL	Status
154	Output AC under voltage	0	BOOL	Status
155	Output under or over frequency	0	BOOL	Status
158	Building Alarm 6	0	BOOL	Status
159	Building Alarm 5	0	BOOL	Status
160	Building Alarm 4	0	BOOL	Status
161	Building Alarm 3	0	BOOL	Status

Register	Name	Value	Format	Unit
162	Building Alarm 2	1	BOOL	Status
163	Building Alarm 1	0	BOOL	Status
169	Output overload	0	BOOL	Status
172	DC link over voltage	0	BOOL	Status
173	DC link under voltage	0	BOOL	Status
174	Rectifier failed	0	BOOL	Status
176	Battery contactor fail	0	BOOL	Status
177	Bypass breaker fail	0	BOOL	Status
191	Battery current limit	0	BOOL	Status
194	Output current over 100%	0	BOOL	Status
199	Shutdown imminent	0	BOOL	Status
200	Battery low	0		Status
212	Battery DC over voltage	0	BOOL	Status
214	Power supply failure	0	BOOL	Status
229	Network not responding	0	BOOL	Status
241	Emergency shutdown command	0	BOOL	Status
249	Bypass not available	0	BOOL	Status
251	Battery contactor open	0	BOOL	Status
252	Inverter contactor open	0	BOOL	Status
270	Battery totally discharged	0	BOOL	Status
295	Battery not charged	0	BOOL	Status
312	UPS On Battery	0	BOOL	Status
313	UPS On Bypass	1	BOOL	Status
314	Load Dumped (Load Power Off)	0	BOOL	Status
337	Fan Failure	0	BOOL	Status
345	Transformer Over Temperature	0	BOOL	Status
361	Input Breaker Failed	0	BOOL	Status

**Table 5. Read Input Registers - Modbus Function Code 04 (Input Registers Start at 30000)**

Register	Meter Name	Scale	Unit
1	OUTPUT VOLTS AB	/10	Volts
2	OUTPUT VOLTS BC	/10	Volts
3	OUTPUT VOLTS CA	/10	Volts
4	INPUT VOLTS AB	/10	Volts
5	INPUT VOLTS BC	/10	Volts
6	INPUT VOLTS CA	/10	Volts
10	BYPASS VOLTS AB	/10	Volts
11	BYPASS VOLTS BC	/10	Volts
12	BYPASS VOLTS CA	/10	Volts
19	INPUT CURRENT PHASE A	/10	Amps
20	INPUT CURRENT PHASE B	/10	Amps
21	INPUT CURRENT PHASE C	/10	Amps
22	OUTPUT TRUE POWER	/10	kW
23	INPUT TRUE POWER	/10	kW
24	OUTPUT APPARENT POWER	/10	kVA
25	INPUT APPARENT POWER	/10	kVA
26	OUTPUT POWER FACTOR	/100	—
27	INPUT POWER FACTOR	/100	—
28	OUTPUT FREQUENCY	/10	Hz
29	INPUT FREQUENCY	/10	Hz
30	INVERTER FREQUENCY	/10	Hz
31	BYPASS FREQUENCY	/10	Hz
33	BATTERY CURRENT	/10	Amps
34	BATTERY VOLTAGE	/10	Volts
35	% BATTERY LEFT	/10	%
36	BATTERY TIME REMAINING	/10	Minutes
60	INVERTER VOLTS PHASE A	/10	Volts
61	INVERTER VOLTS PHASE B	/10	Volts

Register	Meter Name	Scale	Unit
62	INVERTER VOLTS PHASE C	/10	Volts
66	LOAD CURRENT PHASE A	/10	Amps
67	LOAD CURRENT PHASE B	/10	Amps
68	LOAD CURRENT PHASE C	/10	Amps
69	LOAD CURRENT PHASE A BAR CHART	/10	Amps
70	LOAD CURRENT PHASE B BAR CHART	/10	Amps
71	LOAD CURRENT PHASE C BAR CHART	/10	Amps
72	OUTPUT VA BAR CHART	/10	kVA
79	OUTPUT VOLTS A	/10	Volts
80	OUTPUT VOLTS B	/10	Volts
81	OUTPUT VOLTS C	/10	Volts