

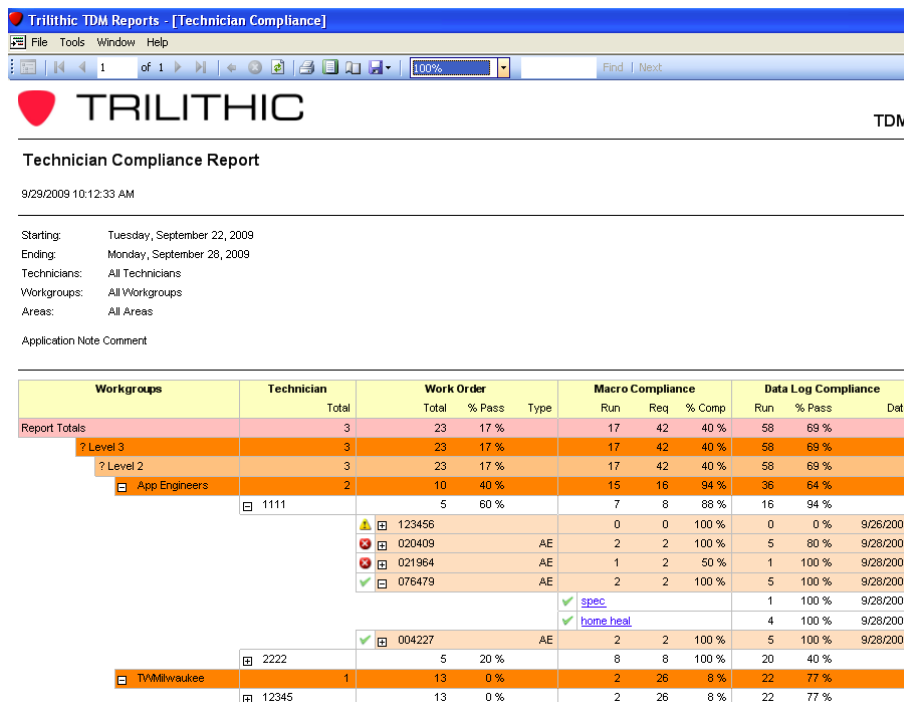
Troubleshooting Technician Compliance with TDM

Introduction

The following document will provide tips and techniques for troubleshooting technician compliance on a TDM server. The user will need access to TDM Administration Pages, TDM Reports, TDM Data Access, and WorkBench. Access to the flat file may be needed in some instances.

Technician Compliance Overview

In short, the workforce management function of TDM answers two questions: Did the technician run the autotests required for the job and did those tests pass? Macro compliance answers just the question: Did the technician run the autotest? Data log compliance answers the question: Did those tests pass? Work order compliance answers the question: Did the technician run the autotest AND did the test pass? Below is an example of a Technician Compliance Report:



Trilithic TDM Reports - [Technician Compliance]

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TRILITHIC TDM

Technician Compliance Report

9/29/2009 10:12:33 AM

Starting: Tuesday, September 22, 2009
 Ending: Monday, September 28, 2009
 Technicians: All Technicians
 Workgroups: All Workgroups
 Areas: All Areas
 Application Note Comment

Workgroups	Technician	Work Order			Macro Compliance			Data Log Compliance			
		Total	Total	% Pass	Type	Run	Req	% Comp	Run	% Pass	Date
Report Totals		3	23	17 %		17	42	40 %	58	69 %	
? Level 3		3	23	17 %		17	42	40 %	58	69 %	
? Level 2		3	23	17 %		17	42	40 %	58	69 %	
App Engineers		2	10	40 %		15	16	94 %	36	64 %	
1111			5	60 %		7	8	88 %	16	94 %	
			123456			0	0	100 %	0	0 %	9/26/2009
			020409		AE	2	2	100 %	5	80 %	9/26/2009
			021964		AE	1	2	50 %	1	100 %	9/26/2009
			076479		AE	2	2	100 %	5	100 %	9/26/2009
									1	100 %	9/26/2009
									4	100 %	9/26/2009
			004227		AE	2	2	100 %	5	100 %	9/26/2009
2222			5	20 %		8	8	100 %	20	40 %	
TVMHvaukee		1	13	0 %		2	26	8 %	22	77 %	
12345			13	0 %		2	26	8 %	22	77 %	

In the example above, we can see the three columns: Work order, Macro Compliance and Data Log Compliance. If we look at the row for Tech 1111 we see that his Work Order Compliance is 60%. This means that of the 5 work orders he was assigned, 3 had the required autotests run and all steps within those tests passed. (3 divided by 5 =60%).

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If we look at his Macro Compliance we see that in the 5 jobs he was assigned he ran 7 of 8 required autotests, or macros, for a Macro Compliance percentage of 88%. If we look at his Data Log Compliance we see that the total number of steps (scan, MER, modem stats, hum, etc.) in the macros that he did run is 16. Of those 94% passed. In summary, this tech is for the most part running the required autotests and leaving the home with passing results. If we look at the row for Tech 2222, we see that he is consistently running his autotests but is not leaving the home with passing results.

The Flat File

How does TDM know what jobs are assigned to what tech? For technician compliance to report properly billing system information is dropped onto the server on a daily basis. This information is commonly known as the "flat file". A flat file is simply a comma delimited text file containing the tech ID, job type, work order number, job date, job status, and other information. An example is below:

```
SYS, PRIN, AGENT, SCHED_DATE, TECH, JOB_NO, MGMT_AREA, JOB_TYPE, HSI_HEAD_END, VOI_HEAD_END, SUB, CUST, NODE,
8772,1000,5070,12/23/2009 0:00,7000,144333,9,KD,3,3,8.77E+15,1.21E+12,JK122 ,C,4,SIK DELIVERY,
8772,1000,6000,1/1/1900 0:00,0,146476,20,KI,91,91,8.77E+15,1.21E+12,20XX2 ,C,49,SIK PICK UP,12,
8772,1000,5900,12/30/2009 0:00,0,157664,9,DR,17,17,8.77E+15,1.21E+12,RD101 ,C,NH
8772,1000,5290,1/1/1900 0:00,0,158569,9,KI,22,22,8.77E+15,1.21E+12,BE42 ,C,49,SIK PICK UP,12/
8772,1000,5130,12/25/2009 0:00,542,162799,9,TC,7,7,8.77E+15,1.21E+12,MR31 ,C,778, TROUBLE CALL,
8772,1000,6110,12/25/2009 0:00,788,164495,20,R4,90,90,8.77E+15,1.20E+12,05J02 ,C,204,QOS CABLE
8772,1000,5420,12/25/2009 0:00,202,165415,9,R7,9,9,8.77E+15,1.21E+12,HL61 ,C,4.32E+11,QOS-ALL
8772,1000,5900,12/25/2009 0:00,410,165601,9,TT,17,17,8.77E+15,1.21E+12,RD143 ,C,801656,ALL OUT
8772,1000,5900,12/25/2009 0:00,428,165652,9,TT,16,16,8.77E+15,1.21E+12,PA62 ,C,883,ALL OUT TC,
8772,1000,5390,12/25/2009 0:00,214,165657,9,R7,23,23,8.77E+15,1.21E+12,IH23 ,C,548896899,QOS-
8772,1000,5900,12/25/2009 0:00,438,165697,9,HT,17,17,8.77E+15,1.21E+12,RE83 ,C,656548,HSI TROU
8772,1000,5270,12/25/2009 0:00,154,165709,9,R7,6,6,8.77E+15,1.20E+12,AF83 ,C,548899,QOS-ALL OI
8772,1000,5500,12/25/2009 0:00,565,165732,9,R7,8,8,8.77E+15,1.20E+12,EF81 ,C,883,QOS-ALL OUT
8772,1000,6210,12/25/2009 0:00,793,165961,20,TC,90,90,8.77E+15,1.21E+12,15B04 ,C,758, TROUBLE C
8772,1000,5770,12/25/2009 0:00,371,165964,9,TT,5,5,8.77E+15,1.21E+12,CG61 ,C,778,ALL OUT TC,1:
8772,1000,5370,12/25/2009 0:00,248,165986,9,TT,23,23,8.77E+15,1.21E+12,IB61 ,C,778,ALL OUT TC,
8772,1000,5340,12/25/2009 0:00,238,166002,9,R7,9,9,8.77E+15,1.21E+12,HE22 ,C,430435,QOS-ALL OI
8772,1000,5070,12/25/2009 0:00,425,166012,9,R7,3,3,8.77E+15,1.20E+12,JJ82 ,C,750,QOS-ALL OUT
8772,1000,5900,12/25/2009 0:00,410,166065,9,TT,17,17,8.77E+15,1.21E+12,RC82 ,C,802,ALL OUT TC.
```

Below is the same information viewed with Excel so you can see how the columns line up with the column headers:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	SYS	PRIN	AGENT	SCHED_DATE	TECH	JOB_NO	MGMT_AREA	JOB_TYPE	HSI_HEAD_END	VOI_HEAD_END	SUB	CUST	NODE	STAT	COMPL_CDE
2	8772	1000	5070	12/23/2009 0:00	7000	144333	9	KD	3	3	8.77E+15	1.21E+12	JK122	C	4
3	8772	1000	6000	1/1/1900 0:00	0	146476	20	KI	91	91	8.77E+15	1.21E+12	20XX2	C	49
4	8772	1000	5900	12/30/2009 0:00	0	157664	9	DR	17	17	8.77E+15	1.21E+12	RD101	C	NH
5	8772	1000	5290	1/1/1900 0:00	0	158569	9	KI	22	22	8.77E+15	1.21E+12	BE42	C	49
6	8772	1000	5130	12/25/2009 0:00	542	162799	9	TC	7	7	8.77E+15	1.21E+12	MR31	C	778
7	8772	1000	6110	12/25/2009 0:00	788	164495	20	R4	90	90	8.77E+15	1.20E+12	05J02	C	204
8	8772	1000	5420	12/25/2009 0:00	202	165415	9	R7	9	9	8.77E+15	1.21E+12	HL61	C	4.32E+11
9	8772	1000	5900	12/25/2009 0:00	410	165601	9	TT	17	17	8.77E+15	1.21E+12	RD143	C	801656
10	8772	1000	5900	12/25/2009 0:00	428	165652	9	TT	16	16	8.77E+15	1.21E+12	PA62	C	883
11	8772	1000	5390	12/25/2009 0:00	214	165657	9	R7	23	23	8.77E+15	1.21E+12	IH23	C	548896899
12	8772	1000	5900	12/25/2009 0:00	438	165697	9	HT	17	17	8.77E+15	1.21E+12	RE83	C	656548
13	8772	1000	5270	12/25/2009 0:00	154	165709	9	R7	6	6	8.77E+15	1.20E+12	AF83	C	548899
14	8772	1000	5500	12/25/2009 0:00	565	165732	9	R7	8	8	8.77E+15	1.20E+12	EF81	C	883
15	8772	1000	6210	12/25/2009 0:00	793	165961	20	TC	90	90	8.77E+15	1.21E+12	15B04	C	758
16	8772	1000	5770	12/25/2009 0:00	371	165964	9	TT	5	5	8.77E+15	1.21E+12	CG61	C	778
17	8772	1000	5370	12/25/2009 0:00	248	165986	9	TT	23	23	8.77E+15	1.21E+12	IB61	C	778

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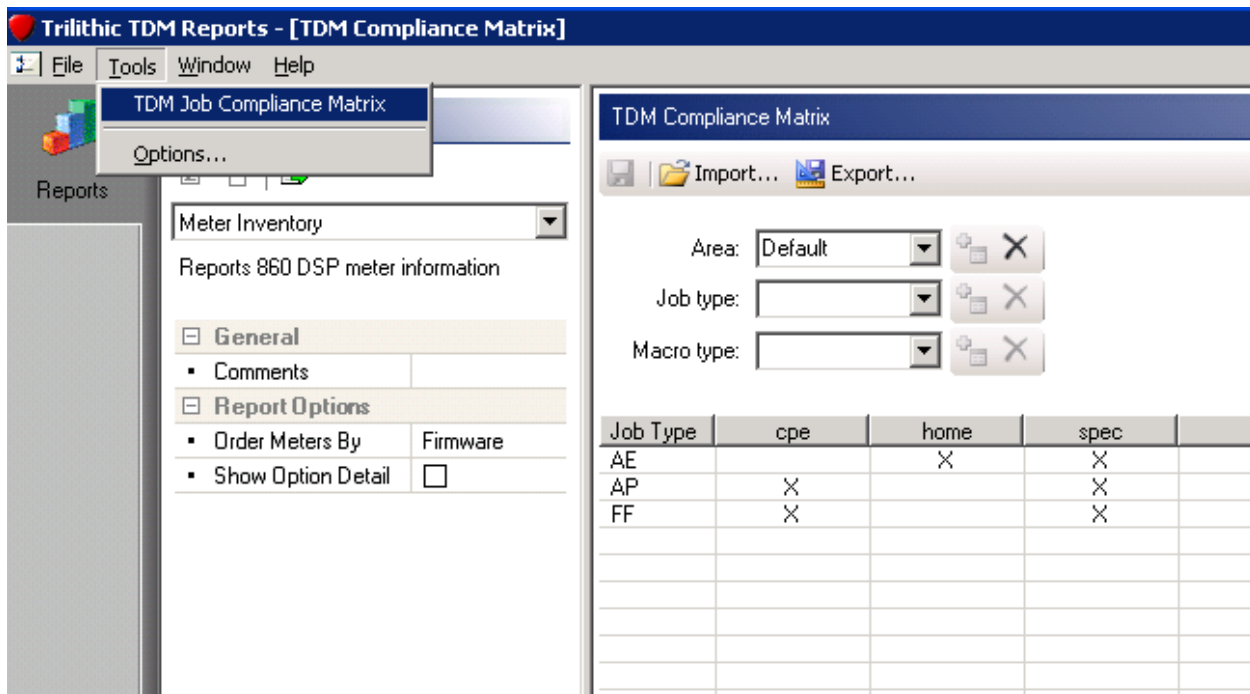
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When the TDM server processes a flat file, it first looks for rows of data where the tech ID matches the operator name of any 860 that is authorized in the list of 860s in TDM Administration. It then imports the relevant data into the database. When a compliance report is generated TDM uses this data to determine what jobs were assigned to what techs on what date.

Flat files are stored on the server, typically in a file named TDM Task Drop.

The TDM Job Compliance Matrix

How does TDM know what autotests, or macros, are required for each job? The flat file information for each work order also contains the job type. Based upon the job type for a given work order the TDM user can specify what macros are required to be ran for each job type. This is done in the TDM Job Compliance Matrix. For access to the compliance matrix, TDM Reports must be opened directly on the server. Select Tools and TDM Job Compliance Matrix to view. Below is an example of the compliance matrix:



Job Type	cpe	home	spec
AE		X	X
AP	X		X
FF	X		X

In the above example we can see that for the job type AE, the macro “home” and the macro “spec” are both required. For the job type AP, the “cpe” and “spec” macros are both required.

Note: The macro names are “begins with” fields. In other words if the tech uploads a macro named cpe4, cpesouth, cpebasic, etc. it will satisfy the cpe macro requirement.

Based on the billing system information, or flat file, and the compliance matrix TDM now knows what macros are required for each work order assigned to each technician on any given date.

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Troubleshooting Tips

Below are some examples of issues that can occur on the TDM server along with possible causes and fixes:

No Required Jobs are Showing Up for a Technician or Technicians

Possible Causes:

- A. The flat file is not reaching the server. Check the flat file location on the server for daily files.
- B. The technician or technicians are not in the flat file. Search the flat file for the tech's ID. If not there contact billing system person and have tech(s) added to flat file.
- C. The tech name in the flat file does not exactly match the operator name in the 860. Correct the operator name in the meter.
- D. The TDM Job Compliance Matrix is not configured correctly. Make sure that in the compliance matrix the correct macro(s) are required for the specific job types.

Technician's Uploaded Jobs are Not Showing Up

Possible Causes:

- A. The date and time on the meter is wrong. Correct meter.
- B. The technician is not saving data to a Task. Check the Transaction History (TDM Administration) for the tech and look for 123456~00.log format in uploaded files. 123456.log indicates data is not being saved to Task.
- C. The Technician entered the wrong Task ID.
- D. The Technician ran the test on the wrong date.
- E. Data is hanging in the Inbox. Check technicians Inbox on the TDM Administration page. If log files are found here this can be an indication of a faulty channel plan (ex. Two different frequencies with the same channel number or two different channel numbers with the same frequency)

Work Order are Showing Up Twice in Reports

Possible Cause:

- A. Two different 860s have the same operator name. Go to the 860 link in TDM Administration and rename the meter that is not being used by the technician.

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