



# TL 9000 PERFORMANCE DATA AND ANNUAL REPORTS WEBINAR PART 1 OF 2

28 October 2020

Presented by Tom Yohe, TL 9000 Expert and TIA QuEST Forum Advisor

**The Presentation will start soon! There may be silence before we start.**



# About TIA QuEST Forum

## Who

Non-biased, Non-profit  
Global  
Proven track record

## What

TL 9000, Sustainability, Customer Experience, Supply Chain Security, Culture of Quality  
Networking/Best Practices Conferences  
Benchmarking and Measurements

## Why

Improve business performance  
Supply Chain Management  
Common quality language/standards for the ICT industry

# What Is TL9000 ?

Created by the QuEST Forum

Globally recognized quality standard, designed to improve communications products: hardware, software and services

Built on ISO 9001 and its quality management principles

Includes requirements for continual improvement, customer satisfaction and reporting of industry standard measurements





**Tom Yohe**

**TL 9000 Expert and TIA  
QuEST Forum Advisor**

Tom is semi-retired and currently provides TL 9000 expertise and other support to TIA QuEST Forum. Tom's prior work experience in Reliability Engineering and Quality includes 7 years in Avionics prior to moving to Telecommunications. He has experience in all areas of reliability engineering, especially field performance monitoring. His last full-time position was as Quality Director for a multi-national telecommunications repair and reverse logistics company. Involved in the development of the TL 9000 Handbooks since the initial meetings in 1998, he is active in the Oversight and IGQ Work Groups.

Tom earned a BSEE from the University of Kansas. A former senior member of the ASQ, he was an officer of the Dallas Chapter of the IEEE Reliability Society for many years. Tom is a TIA QuEST Forum Fellow.

# ACCESSING AND USING TL 9000 DATA REPORTS

Tom Yohe

TIA QuEST Forum

October 2020

# OUTLINE

- ▶ TL 9000 Industry trend data
  - ▶ What, when, and how
- ▶ Outputs
  - ▶ Monthly Average, Best in Class, Worst in Class, & Industry Average
- ▶ Annual Data
- ▶ How to access and use

## REFERENCES

- ▶ TL 9000 Measurement Outputs and Calculations
- ▶ Located on tl9000.org

[http://www.tl9000.org/tl\\_resources/TL\\_9000\\_Measurement\\_Outputs\\_and\\_Calculations.pdf](http://www.tl9000.org/tl_resources/TL_9000_Measurement_Outputs_and_Calculations.pdf)

## REFERENCES

- ▶ How to Use QuEST Forum TL 9000 Measurement Performance Data Reports
  - ▶ Posted on [tl9000.org](http://tl9000.org) website
  - ▶ Contains insight into how to interpret / use the data
- ▶ Both documents maintained by the IGQ Working Group



WHAT, HOW, AND WHEN




## WHAT IS PUBLISHED?

- ▶ Monthly Average
- ▶ Best in Class
- ▶ Worst in Class
- ▶ Industry Average

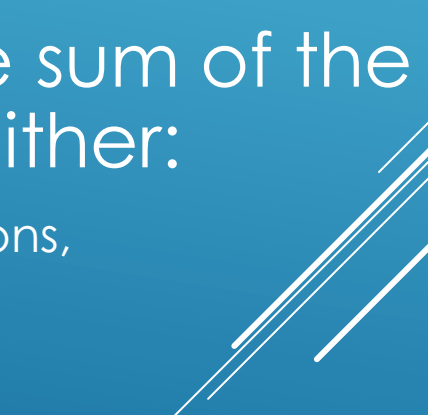
# MONTHLY AVERAGE

- ▶ Composite average
- ▶ For a given measure
  - ▶ All submitted values are summed
  - ▶ Resulting sums are used in the formula for the measurement
- ▶ Represents overall performance based on all of the data submitted for the month
- ▶ Same method all measurements


# BEST IN CLASS

- ▶ Best performance - smoothed data
  - ▶ Single certified registration
  - ▶ Submitted data for each month of smoothing period
  - ▶ To be included in Best In Class the sum of the Registrations submissions must be either:
    - >=2% of the sum of the denominators for all submissions or
    - >= threshold value for the categorywhich ever is smaller
  - ▶ FRT/OFR based on NPR denominators
- 

# WORST IN CLASS

- ▶ Worst performance - smoothed data
  - ▶ Single certified registration
  - ▶ Submitted data for each month of smoothing period
  - ▶ To be included in Worst In Class the sum of the Registrations submissions must be either:
    - >=2% of the sum of the denominators for all submissions,
    - >= threshold value for the category, or
    - >= 5% of sum of numerators for all submissions
- 

# INDUSTRY AVERAGE

- ▶ Composite average of all data for the smoothing period from the eligible data
  - ▶ Therefore, includes only certified registrations that have submitted data for each month of the smoothing period and have over 2% of the reported population or meets floor threshold number
  - ▶ FRT and OFR based on average value calculation for comparability to BIC/WIC
- 

# DATA RULES

- ▶ Data from certified registrations only
- ▶ At least three separate companies
- ▶ Process governed by Section 3.5.1 e) in the Measurements Handbook

- ▶ All data converted to identical basis
  - ▶ Calendar month
  - ▶ Most current revision
- ▶ Last 24 months calculated each time
- ▶ Multiple submissions from same registration (TL ID) aggregated
- ▶ Multiple registrations from same company not combined (except for 3 company rule)

BASICS



# COMPOSITE AVERAGE EXAMPLE NPR1

Submission	#1	#2	#3	#4	#5
Np1	2	5	4	2	3
NPRs	15	30	20	16	30

- ▶ Np1 sum =  $2+5+4+2+3 = 16$
- ▶ NPRs sum =  $15+30+20+16+30 = 111$
- ▶ Monthly Average NPR1 =  $12*16/111$   
= 1.73

- ▶ Want Best In Class and Worst In Class based on sustained performance
- ▶ Data smoothed by using composite average for six- or twelve-month period
- ▶ Calculated by TL registration ID for smoothing period
- ▶ No number calculated if data not available for each month of the period

SMOOTHED OUTPUTS



- ▶ Six months

- ▶ NPR, FRT, OFR, OTI, OTIP, MTRS, SFQ, eSPR, CCRR

- ▶ Twelve months

- ▶ OTS, SO, SONE, SSO, GSI, FR, BRR, SQ

- ▶ Report after six months for new category

SMOOTHING PERIODS

Value set to 100% if there is no data

No problems due  
for FRT

No problems  
overdue for OFR

Composite average would penalize  
perfect monthly performance

Smoothed number based on  
average of the monthly calculated  
values

## FRT & OFR EXCEPTION

# AVERAGE VALUE EXAMPLE

Month	1	2	3	4	5	6
Fr2c	0	0	1	0	0	0
Fr2d	0	0	1	1	0	0
FRT2	100	100	100	0	100	100

- ▶ Average value =  $500/6 = 83.3\%$
- ▶ Composite value =  $\frac{1}{2} = 50.0\%$

# ELIGIBILITY FLOORS

- ▶ Vary by product category and measurement
- ▶ Example – 3.2.4 DSL
  - NPR – 500 NE's
  - FRT – 500 NE's (from NPR)
  - OTI – 600 items
  - SONE – 500 NE's
  - FR – 50,000 FRU's

# ZERO DENOMINATOR RULES

- ▶ Numerator and denominator are zero

$$0/0$$

- ▶ Numerator >zero and denominator = zero

$$n/0$$

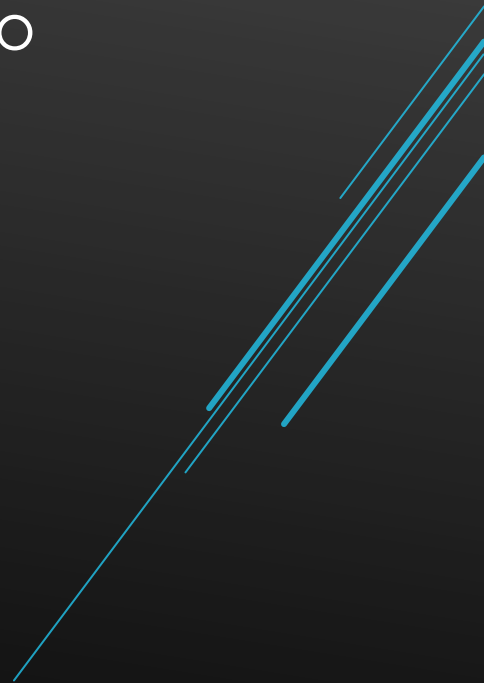
- ▶ Possible interpretations

0

100%

Not Valid

No Data



# ZERO DENOMINATOR RULES


Measurement	0/0	n/0
NPR1,2,3	Not valid	Not valid
NPR4	No data	n/1
FRT2,3,4	100%	Not valid
OFR2,3,4	100%	Not valid
OTI	No data	Not valid
OTS	No data	Not valid
SO1-4	No data	Not valid
NEO1-4	No data	Not valid



# ZERO DENOMINATOR RULES

Measurement	0/0	n/0
SSO	No data	n/1
MTRS	No data	Not valid
ERI, YRR, LTR	No data	Not valid
BRR	No data	Not valid
GSI	Not valid	Not valid
SFQ	No data	n/n
eSPR1,2,3	No data	Not valid
SQ	No data	n/n

# SCHEDULE

- Published two business days after the data is due each month
  - Contains 24 months of data
  - Because data due 7 weeks after month end, report ends two months prior
  - July 2020 report contains data from June 2018 through May 2020
- 

Log in

- Log in at [questforum.org](http://questforum.org) or [tl9000.org](http://tl9000.org)

Select

- Select “Member’s Area” from left menu

Select

- Select “Performance Data Reports” under “Resources” from center menu

Read

- Read usage agreement and select “I Agree”

Access

- View online or download single product category or download all product categories

## ACCESS – MEMBERS

# NON- MEMBERS - PURCHASE

		<b>One Category</b>	<b>All Categories</b>
<b>Introductory Pricing</b>	QuEST Forum Affiliate (Liaison Member, TL 9000 Registered Company)	\$250	\$1,250
	Not a QuEST Forum Affiliate	\$500	\$2,500
<b>Long-Term Pricing</b>	QuEST Forum Affiliate (Liaison Member, TL 9000 Registered Company)	\$500	\$2,500
	Not a QuEST Forum Affiliate	\$2,500	\$15,000

# IMPORT INSTRUCTIONS

- ▶ Open the comma delimited file in Excel.
  - ▶ Select all the text in the file and Copy.
  - ▶ Open an Excel file containing your data.
  - ▶ Paste the PDR information into its own tab.
- 
- ▶ Or can import into Access or other database program

# DOWNLOAD CSV FILE FROM PDR AREA

## ProductCategory 7.1.1

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Measurement-NPR4	5/2011	6/2011	7/2011	8/2011	9/2011	10/2011	11/2011	12/2011	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	1/2013	2/2013	3/2013	4/2013
MonthlyAverage	0.383387	0.417412	0.373731	0.270972	0.347069	0.289173	0.295687	0.276105	0.175262	0.188887	0.248735	0.232065	0.27926	0.25375	0.240781	0.23501	0.520797	0.524594	0.525022	0.524499	0.299758	0.475125	0.42015	0.32059884
BestInClass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WorstInClass	194.625	226.3448	177.6	126.1017	88.14545	76.78723	67.98139	58.78992	60.78603	65.71429	75.14634	90.44776	113.3714	122.9388	118.1539	103	94.28371	80.24	72.34483	71.52899	71.46835	69.90044	80.53333	90.15126
IndustryAverage	0.188897	0.138575	0.119008	0.108397	0.354513	0.228055	0.209592	0.189126	0.176096	0.168675	0.1671	0.169901	0.177414	0.184539	0.187327	0.187044	0.205959	0.240176	0.269144	0.249778	0.327853	0.405162	0.401477	0.38206868
MonthlyAveCount	79	81	80	82	82	80	84	85	87	84	87	82	86	81	84	82	80	82	80	82	78	78	77	79
BestInClassCount	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	9	10	10	10	9	
WorstInClassCount	11	10	10	10	10	11	11	11	11	11	11	11	11	10	9	9	10	10	11	12	12	12	11	
IndustryAveCount	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	9	10	10	10	9	

## ProductCategory 7.1.1

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Measurement-RT4	5/2011	6/2011	7/2011	8/2011	9/2011	10/2011	11/2011	12/2011	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	1/2013	2/2013	3/2013	4/2013
MonthlyAverage	95.30438	92.74317	97.22615	97.24178	96.93093	96.53007	96.64787	96.29962	93.16314	95.03529	92.49813	93.79458	94.52415	96.13942	94.20425	95.61001	95.58432	96.19003	96.02001	95.33147	97.09842	95.05911	95.13432	94.57398
BestInClass	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
WorstInClass	14.58333	14.58333	17.22222	23.88889	23.88889	20.55556	17.38895	17.38895	9.04719	2.38952	2.38952	2.38952	50	4.166667	4.166667	9.722222	25.78283	26.77751	6.25	13.94231	18.10897	18.10897	23.66453	23.66453
IndustryAverage	66.47481	59.56138	69.72827	70.82809	80.02667	80.75945	82.40878	85.39434	82.86124	80.77457	76.75415	81.00801	88.72413	75.54463	72.92841	84.13528	86.4672	87.75451	80.2162	84.20881	86.95595	86.64546	84.88936	85.19263
MonthlyAveCount	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	86	88	87	84	86
BestInClassCount	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	9	10	10	9	
WorstInClassCount	12	11	11	11	11	10	11	12	11	11	11	11	11	10	9	9	10	10	11	11	11	11	10	
IndustryAveCount	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	9	10	10	10	9	

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Measurement-OF4	5/2011	6/2011	7/2011	8/2011	9/2011	10/2011	11/2011	12/2011	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	1/2013	2/2013	3/2013	4/2013
MonthlyAverage	94.20937	92.04488	92.66002	94.01322	92.55679	92.95313	95.15781	91.80869	92.2377	92.86447	92.02891	91.72041	95.10115	96.40251	89.99913	90.34554	91.07274	92.22004	94.44502	89.80624	93.33843	92.9635	91.28314	90.83744
BestInClass	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
WorstInClass	37.91012	31.95119	33.44692	33.17719	27.39779	24.95075	23.15436	21.9021	20.0849	19.20517	9.553792	5.837742	5.379807	5.379807	3.561449	3.511837	4.924266	4.594338	4.060151	7.036341	6.890254	9.602811	9.75831	9.470284
IndustryAverage	81.5077	81.2722	82.71114	80.46389	70.37762	72.93057	74.03133	74.44305	70.9026	69.31221	67.71477	68.79463	64.64838	66.24651	70.19218	67.76663	68.16167	68.56485	72.49123	74.30792	74.81272	73.71063	69.33866	67.88321
MonthlyAveCount	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	86	88	87	85	86
BestInClassCount	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	9	10	10	9	
WorstInClassCount	10	9	10	9	9	10	11	11	11	11	10	10	9	10	9	10	9	10	10	12	13	12	11	
IndustryAveCount	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	9	10	10	10	9	

## ProductCategory 7.1.1

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Measurement-QT5	5/2011	6/2011	7/2011	8/2011	9/2011	10/2011	11/2011	12/2011	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	1/2013	2/2013	3/2013	4/2013
MonthlyAverage	88.43734	85.41039	82.94407	83.67049	82.02461	83.92577	83.01034	92.14612	82.1531	83.27564	80.51703	81.86315	86.27863	84.17347	83.43876	83.2081	95.57918	95.38203	92.51232	96.52103	94.81602	93.71743	83.88871	90.52375
BestInClass	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
WorstInClass	78.53449	73.1634	70.5701	66.53622	58.89951	55.74662	53.00766	50.50305	48.41286	46.32651	45.11831	44.45968	44.68023	44.91512	45.97193	46.99719	51.24347	55.48704	58.63043	59.04002	62.34004	64.67404	66.47347	68.57823
IndustryAverage	89.44564	87.90624	87.20121	86.2843	84.23422	84.03301	82.5221	82.00382	83.76743	83.26251	82.35191	81.81899	81.95663	81.91249	83.20169	84.26876	85.38581	85.5174	86.51962	87.33331	87.91523	87.91523	89.07208	89.07208
MonthlyAveCount	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	86	88	87	85	84
BestInClassCount	6	6	7	7	7	7	8	6	6	7	7	7	7	8	8	8	8	8	8	8	8	7	7	8
WorstInClassCount	6	6	7	7	7	7	8	6	6	7	7	7	7	8	8	8	8	8	8	8	8	7	7	7
IndustryAveCount	6	6	7	7	7	7	8	6	6	7	7	7	7	8	8	8	8	8	8	8	8	7	7	8

## ProductCategory 7.1.1


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Measurement-SQ	5/2011	6/2011	7/2011	8/2011	9/2011	10/2011	11/2011	12/2011	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	1/2013	2/2013	3/2013	4/2013
MonthlyAverage	6.170851	5.774582	6.0152	5.843799	3.944468	4.86456	4.849571	4.596721	5.810466	4.388994	3.807983	4.897703	4.371104	4.358823	5.686309	6.131387	5.212734	8.071679	7.733965	7.639347	5.21041	5.402487	4.776516	6.94478
BestInClass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WorstInClass	78.53449	55.19081	55.19266	55.47722	56.88767	60.29465	59.39733	59.79418	58.39316	56.11407	55.03334	52.41524	52.2853	53.4047	53.07403	52.992	53.52113	53.37605	53.36787	54.83228	54.08764	53.75779	52.8042	51.155224
IndustryAverage	2.377643	2.365821	2.312515	2.377602	2.122643	3.285862	3.38694	4.481758	1.964193	1.657527	1.105681	1.122472	1.103846	1.092091	1.148941	1.173343	1.165036	1.161743	1.166071	1.216559	1.404466	1.396731	1.450057	1.488333
MonthlyAveCount	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	86	88	87	85	84
BestInClassCount	9	9	9	9	9	9	9	10	9	8	7	7	7	7	6	6	6	6	6	6	7	7	7	7
WorstInClassCount	14	13	13	13	13	13	12	12	13	12	12	12	12	12	12	11	11	11	11	11				

# HIGHLIGHT ALL DATA IN FILE AND CLICK "COPY"

ProductCategory 7.1.1																											
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Measuren	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:			
MonthlyA	0.383387	0.417412	0.372731	0.270972	0.347069	0.289173	0.295687	0.276105	0.175262	0.188987	0.248735	0.232065	0.27926	0.25375	0.240781	0.235021	0.520797	0.524594	0.525022	0.524499	0.299738	0.475125	0.42015	0.320599			
BestinClas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WorstinCl	194.625	226.3448	177.6	126.1017	88.14545	76.78723	67.98139	58.78992	60.78603	65.71429	75.14634	90.44776	113.3714	122.9388	118.1539	103	94.28571	80.24	72.34483	71.92899	71.46835	69.90604	80.53333	90.15126			
IndustryA	0.188897	0.138575	0.119008	0.108397	0.354313	0.228055	0.209592	0.189126	0.176096	0.168675	0.1671	0.169901	0.177414	0.184359	0.187527	0.187044	0.209959	0.240176	0.269144	0.294978	0.327853	0.405162	0.401477	0.382087			
MonthlyA	79	81	80	82	82	80	84	85	87	84	87	82	86	81	84	82	80	82	80	82	78	78	77	79			
BestinClas	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	9	10	10	10	9	9		
WorstinCl	11	10	10	10	10	11	11	11	11	11	11	11	10	9	9	10	9	10	10	11	12	13	12	11	11		
IndustryA	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	9	10	10	10	10	9	9		
ProductCategory 7.1.1																											
Copyright 2013 by QeEST Forum for licensed use only. Derived from TL 9000 certified data on 20 June 2013																											
Measuren	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:			
MonthlyA	95.30438	92.74317	97.22615	97.24178	96.93093	96.53807	96.64787	96.29962	93.16314	95.03529	92.49813	93.79458	94.52415	96.13942	94.20425	95.61001	95.58432	96.39003	96.02001	95.33477	97.09842	95.05911	95.13432	94.57398			
BestinClas	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
WorstinCl	14.58333	14.58333	17.22222	23.88889	23.88889	20.55556	17.38095	17.38095	9.047619	2.380952	2.380952	2.380952	50	4.166667	4.166667	9.722222	25.78283	26.77751	6.25	13.94231	18.10897	18.10897	23.66453	23.66453			
IndustryA	66.47481	59.56138	69.72827	70.82809	80.02667	80.75945	82.40878	85.39434	82.86124	80.77457	76.75415	81.00801	88.72413	75.54463	72.92841	84.13528	86.4672	87.75451	80.2162	84.20881	86.95595	86.65446	84.88936	85.19263			
MonthlyA	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	87	88	87	85	84	86		
BestinClas	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	9	10	10	10	9	9		
WorstinCl	12	11	11	11	10	11	12	11	11	11	11	11	10	9	10	9	10	10	10	11	11	11	11	10	10		
IndustryA	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	9	10	10	10	10	9	9		
ProductCategory 7.1.1																											
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Measuren	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:			
MonthlyA	94.20937	92.04688	92.66002	94.01322	92.55679	92.95313	95.15781	91.80869	92.2377	92.86447	92.02891	91.72041	95.10115	96.40251	89.99913	90.34554	91.07274	92.22024	94.44502	89.80624	93.33843	92.9635	91.28314	90.83744			
BestinClas	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
WorstinCl	37.91012	31.95119	33.44692	33.17719	27.39779	24.15436	21.90621	20.0849	19.20517	5.553792	5.837742	5.379867	3.564149	3.511837	4.924266	4.594338	4.060151	7.036341	6.890254	9.60811	9.758181	9.470824					
IndustryA	81.25077	81.2272	82.71114	80.46389	70.37762	72.93057	74.03133	74.44305	70.9026	69.32221	67.71477	68.79463	64.64838	66.2453	67.76663	70.19218	68.16167	68.56435	72.49123	74.30792	74.8172	73.71063	69.23586	67.88821			
MonthlyA	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	88	87	85	84	86			
BestinClas	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	9	10	10	10	9	9		
WorstinCl	10	9	10	9	9	10	11	11	11	11	10	10	9	10	9	10	10	10	10	12	13	13	12	11	12		
IndustryA	9	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	9	10	10	10	9	9		
ProductCategory 7.1.1																											
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Measuren	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:			
MonthlyA	88.43174	85.41039	82.94457	83.67049	82.02461	83.92577	83.01034	92.16612	82.1531	83.27054	80.51703	81.86315	86.27863	84.17347	83.43876	83.2081	95.57938	95.38293	92.51232	96.52103	94.81602	93.73743	83.88871	90.52375			
BestinClas	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
WorstinCl	78.53149	73.1634	70.55701	66.53622	58.89591	55.74662	53.00766	50.50105	48.41286	46.38251	45.11831	44.45969	44.68023	44.91512	45.97193	46.99719	51.24347	55.48704	58.61043	59.04002	62.34024	64.67404	66.47347	68.57823			
IndustryA	89.44564	87.90624	87.36201	86.2843	84.23422	84.03301	82.5221	82.00382	83.76743	83.26251	82.35191	81.81899	81.9563	81.78783	81.92065	81.91249	83.20169	84.26876	85.38581	85.85174	86.51962	87.33331	87.91523	89.07208			
MonthlyA	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	88	87	85	84	86			
BestinClas	6	6	7	7	7	8	6	6	7	7	7	7	7	8	8	8	8	8	8	8	8	7	7	7	8		
WorstinCl	6	6	7	7	7	8	6	6	7	7	7	7	7	8	8	8	8	8	8	8	8	7	7	7	8		
IndustryA	6	6	7	7	7	8	6	6	7	7	7	7	7	8	8	8	8	8	8	8	7	7	7	7	8		
ProductCategory 7.1.1																											
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Measuren	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:	5/201:	6/201:	7/201:	8/201:	9/201:	10/201:	11/201:	12/201:	1/201:	2/201:	3/201:	4/201:			
MonthlyA	6.170851	5.774582	6.0152	5.843739	3.944468	4.86456	4.849571	4.596721	5.814046	4.388994	3.807983	4.897703	4.371104	4.358823	5.686309	6.131387	5.212734	8.071679	7.739665	7.639347	5.21041	5.408487	4.776516	6.494478			
BestinClas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WorstinCl	78.45934	55.19081	55.19266	55.47272	56.88767	60.29465	59.39373	59.79418	58.39316	56.13407	55.03334	52.41524	52.2853	53.4047	53.07403	52.992	53.52113	53.33765	53.36787	54.83228	54.08764	53.75779	52.8042	51.15522			
MonthlyA	84	85	85	87	86	85	89	92	93	92	95	92	91	89	89	87	87	87	87	88	87	85	84	86			
BestinClas	9	9	9	9	9	10	9	10	9	8	7	7	7	7	6	6	6	6	6	6	6	7	7	7	7		
WorstinCl	14	13	13	13	13	13	12	12	13	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11		
IndustryA	9	9	9	9	9	10	9	10	9	8	7	7	7	7	6	6	6	6	6	6	6	7	7	7	7		
ProductCategory 7.1.1																											
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# OPEN SPREADSHEET AND PASTE DATA

- ▶ Put Cursor on Cell A1 in empty spreadsheet – first time
  - ▶ Paste over prior data to update
  - ▶ Data in this tab linked to charts in other tabs
- 





# ANNUAL DATA

- ▶ Available to All Registrants
- ▶ Published once per year for prior calendar year
- ▶ Accessible through the RMS
  - ▶ Log into RMS
  - ▶ Select registration (if you have more than one)
  - ▶ View private registration profile
  - ▶ Double click category number

## ANNUAL INDUSTRY DATA

TL 9000 Annual Performance Data Report  
For The Year  
2012

Product Category 7.1.1  
Installation Service

Go to <http://tl9000.org/pdrs/overview.html>  
for more information about this report

Measurement	Average Value	Data Points	Companies	Best in Class	Average NU Value
NPR4	0.297	1000	92	0	78819
FRT4	94.7	1070	95	100	
OFR4	92.4	1070	95	100	
OTS	86.9	979	91	100	36325
SSO	0.548	861	86	0	40182
SQ	5.32	1070	95	0	17111

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- ▶ Contact UTD for information on setting up XML access to the Trend data
- ▶ Contact button on the web site or e-mail to [contact@questforum.org](mailto:contact@questforum.org)

XML ACCESS



# CONTACT INFORMATION

On tl9000.org -

“TL 9000 Measurements Outputs and Calculations”

“How to Use QuEST Forum TL 9000 Measurement Performance Data Reports (PDRs)”

Tom Yohe – [tyohe@tytl9000.com](mailto:tyohe@tytl9000.com)





**Thank you for participating in the  
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**Next Webinars:**

**TL 9000 Performance Data Reports (PDRs) and  
Annual Reports Part 2 of 2**

Presented by Tom Yohe, TL 9000 Expert

**Wednesday, November 4th @ 12:00 pm EST**

**TL 9000 On Time Delivery Item (OTI) Measurement Webinar**

Presented by Tom Yohe, TL 9000 Expert

**Wednesday, November 11th @ 12:00 pm EST**

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