



A better way
to track parts & labor



An easy way to Save you Time, Money and Aggravation

Gone are the long frustrating hours generating customer invoices, trying to read Tech's hurried handwriting and often overlooked 'Take it now, remember to record it later' lost parts billing. If your Techs can punch a clock to get paid, they can scan a bar code on the parts they take, and all their 'parts and labor' activity is correctly tracked.

TSO is like a giant, well-organized, central repository for all Parts and Labor that are used.

Below is just a small sampling of how that centralized data can be filtered/sorted/output to get most any information you need. This is in addition to exporting all the data to Excel, if you want to do further DIY reporting and graphing.

Parts - by Tail # to invoice the Customer

Date	Tech	Aircraft	PN (Task if Labor)	Qty	Description	COST	Ext	Comp
For Tail # : N42130 N42130								
05/25/23			12019VAS	1	SUPERIOR SL8313 GASKE	\$0.78	\$0.78	
05/25/23			08358VAS	1	KLJXON CIRCUIT BREAKER	\$22.79	\$22.79	
05/25/23			08358VAS	1	KLJXON CIRCUIT BREAKER	\$22.79	\$22.79	
05/25/23			08358VAS	1	KLJXON CIRCUIT BREAKER	\$22.79	\$22.79	
05/25/23			08358VAS	1	KLJXON CIRCUIT BREAKER	\$22.79	\$22.79	
05/25/23			74-2-1ED	-1	1 AMP KLJXON CIRCUIT BRE	\$20.76	-\$20.76	
05/25/23			08358VAS	1	KLJXON CIRCUIT BREAKER	\$20.11	\$20.11	
05/25/23 11:13am				1	KLJXON CIRCUIT BREAKER	\$20.11	\$20.11	
05/25/23 1:34pm				1	CERTFD MS21044C06	\$0.26	\$0.26	
05/25/23 1:34pm				1	AN526-632R7 CAD MACHIN	\$0.05	\$0.05	
05/25/23 2:44pm				2	BUTT SPLICE/Female, tin plat	\$0.59	\$1.18	
05/25/23 2:54pm				1	2-1/4 TO RAISED FACE CO	\$18.50	\$18.50	
05/30/23 3:46pm				6	POLY FLO TUBING 1/4 inch ti	\$0.21	\$1.26	
05/30/23 3:47pm				6	Clock IN	\$0.21	\$1.26	
05/30/23 3:47pm				44	Stranded Wire, 22 GA Red	\$0.20	\$8.80	
05/30/23 3:47pm				52	M22759/16, 22-0 TEFZEL WI	\$0.16	\$8.37	
05/30/23 3:48pm				32	CAN BUS CABLE/24G 2C TV	\$5.85	\$187.20	
05/30/23 3:48pm				16	Shielded 3 wire 22GA	\$1.60	\$25.60	
05/30/23 3:50pm				24	EDMO Stock # 22TG2T14 win	\$0.62	\$14.88	
05/30/23 3:51pm				25	SOLDER SLEEVE/1/4, Outsic	\$0.46	\$11.41	
SubTotal for N42130								
								\$440.76
								24 Transactions

TSO prints a unique barcoded label as every part is received. (top inset at left)

This label immediately goes on the box/bag that waits until it is pulled for use on a Plane. (bottom inset at left)

When a Tech takes the part, they simply scan this bar code at the 'Smart Time Clock' and all the information about this Part is correctly recorded.

That includes the PN, Description, Cost, Price, Vendor, PO#, and even Serial Number if available.

Since TSO knows what Plane/Discrepancy the Tech is working on, that is also recorded for this disbursement and this report could be further subtotaled by those Squawk/Discrepancies.

'Labor hours' are listed similarly, so you can get Parts and Labor in one report to prepare a customer invoice.

Labor By Employee, for Payroll

For	MJS	MATT	SABAN		
3/20/2023 Monday					
03/20/23 8:24am	MJS	N33SC	[5] GI-275 Installation	2.03	2.03
03/20/23 10:26am	MJS	N9158Q	[5] Replace CBs	0.25	0.25
03/20/23 10:41am	MJS	N33SC	[5] GI-275 Installation	0.33	0.33
03/20/23 11:01am	MJS	N9158Q	[5] Replace CBs	0.03	0.03
03/20/23 11:03am	MJS	N9158Q	[6] Remove Vac System	0.05	0.05
03/20/23 11:06am	MJS	N9158Q	[2] INSTALL GARMIN GDU720 EIS	0.10	0.10
03/20/23 11:12am	MJS	N9158Q	[2] INSTALL GARMIN GDU720 EIS	0.87	0.87
03/20/23 12:04pm	MJS	N1539W	[4] Install GFC 500 Autopilot Pitch, Roll	1.92	1.92
03/20/23 1:59pm	MJS	N33SC	[8] Investigate moving JPI	3.68	3.68
03/20/23 5:40pm	MJS	N33SC	[8] Investigate moving JPI	12.01	0.00
SubTot for : 3/20/2023 Monday				21.27	9.26
3/21/2023 Tuesday					
03/21/23 7:52am	MJS	N33SC	[8] Investigate moving JPI	4.67	4.67
03/21/23 12:32pm	MJS	N33SC	[8] Investigate moving JPI	0.90	0.90
03/21/23 1:26pm	MJS	N33SC	[8] Investigate moving JPI	3.38	3.38
03/21/23 4:49pm	MJS	N33SC	[8] Investigate moving JPI	12.01	0.00
SubTot for : 3/21/2023 Tuesday				20.96	8.95
3/22/2023 Wednesday					

To record all time spent, Techs can either scan in on the Computer's Time Clock or simply 'Clock In' from their phone's email.

From their phone, Techs record what Task they are working on, can Add Squawks as they find them, document them with pictures, and:

Add detailed explanation of what they find while working on a plane, that they would never do if they have to get up and walk to their work bench to write it down.

Now, they just pull out their phone, *dictate* their comments into their standard eMail program, and keep working.

Sorted by Tech/Date above, you get Payroll Time Cards. When sorted by Tail # this tells you exactly how much time was billed against each Discrepancy of each Plane, making your billing chore a 2-minute task.



Job Cost "Dossier"

Date Tech Aircraft Task Description Labor Actual Billable
For Tail# : N335C N335C


Task [1] // Admin/Notes //

03/09/23 10:48am HGF
 04/07/23 10:38am MJS
 04/07/23 2:25pm MJS
 04/12/23 1:42pm MJS

SubTot for : Task [1]

Task [2] // Admin/Notes //


03/09/23 11:00am MJS (see Description below) 0.13 0.13
 Cracked Tail Brace Location



Culmination of Parts, Labor, and Pictures

< [N335C]_#9328_H1002_126

03/09/23 11:20am MJS (see Description below) 0.17 0.17
 Close up of cracked tail brace



Comprehensive Status Report

Culmination of Parts, Labor, and Pictures

The start of most all jobs is a clear definition of what needs to be done on the aircraft. This is the essence of the American Bonanza Society Service Clinics which use TSO as their documentation tool of choice. You then review this clearly-documented 'squawk list' with the customer, getting approval for agreed upon repairs. But a well-documented 'diagnosis' is the first step.

From there, you add Parts and Labor to this growing, central repository of information about this aircraft to document what you did, what parts you used, and how much time you spent..

This report combines the Activity Slips of "Parts" and "Labor" above, along with pictures, into a comprehensive report of

"Everything that is going on with this plane"

You no longer need to spend 10-40 minutes on a phone call trying to describe verbally the work needed, as the customer has everything in front of them from this PDF that you send them up front.

Additionally, TSO acts like your Knowledge Bank of information about this plane for *future* visits, since you can look up on the next year's visit: "How bad has it gotten since last year?" with only a few mouse clicks.

When the invoice comes out and the customer asks "Where did all the money go?", you have this dossier that subtotals the parts and labor *per Discrepancy* to explain it all.

// Admin/Notes //			
[1]	// Admin/Notes //	\$0.00	15.64 3.03
cold compressions			
[2]	cold compressions	\$0.00	0.30 0.30
drain engine oil			
[3]	drain engine oil	\$0.00	0.37 0.37
check engine and magneto timing			
[4]	check engine and magneto t	\$0.00	0.20 0.20
clean fuel controller screen			
[5]	clean fuel controller screen	\$0.00	0.27 0.27
service spark plugs			
[6]	service spark plugs	\$0.00	2.25 1.15
change oil filter			
[7]	change oil filter	\$0.00	0.2 0.20

Among the many 'little things' is the "Task Completion" report, which is just a standard TSO report wherein Techs have indicated "Task Complete" as appropriate. In this way, the shop foreman can tell at a glance what work has been completed and what is yet to be done. And you can even run this report from your phone and get it emailed to you as a PDF report.!

Speaking of which, TSO automatically emails you weekly status reports every Saturday, showing the work done the past weeks, and the Open Jobs still in the shop for the upcoming week – by Tail Number and by Employee.

Scanning out a Part, from the TSO barcoded label.



This ~ 15 second activity is all your Techs need to do, for every Part ever taken!



And replacing "Clock In" or "Clock Out" for a Part Number, you now have time clock entries.

<https://panatechcomputer.com/tso-video-disburse-scan>

Creating the Barcode label in the first place:



Here is a slow, 'chatty' step-by-step explanation.

Even being chatty, the video is barely 1 minute long. In real time you could do this in about 15 seconds

<https://panatechcomputer.com/tso-video-garmn-rcv%2FLabel>




The American Bonanza Society and Continental Motors use TSO to document Service Clinic findings.

Scan the QR code to see videos, sample reports, and more

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