Antaris NIR Instrument ; Checking the System

The following procedure verifies instrument performance to make sure it meets system specification, including passing ValPro tests.

Make sure you have a user who logs on with Administrative privileges and has access to all menu drop down items i.e. Administration, Logs, Standards, Maintenance, Service

Example of *RESULT Operation*



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Click on Administration > Manage Users

Make sure the individual logged on has access to all of the check boxes below for the menu drop down items:

📅 Manage Users 🧫
Select user log on:
john Add Remove
User Information
ID: {0462DD80-54FF-4D0C-B7C8-81D7F6A12B25}
Name: john
Les au lista
PC or domain: john-PC
■ Run production workflows
Run workflows off-line
Access Standards menu
Access Logs menu
Access deministration menu
Access Trend tab setup option

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Select the Maintenance menu and then select Instrument Status from the available options.

Instrument Status

Administration	Logs Standards	Maintenance Servi	28
		Test Sample	
		Test Background	
		Ouick Collect	
Go		Tostrument Status	Select Workflow ValPro Qualification Verify Workflow Log Off
		Align Instrument	
AMER/ali.yilmaz		Instrument Check	
-		Update Service Log	
		About RESULT	
ValPro:	Verification:		
Mature find	Matura	1	- JESULI
Nociednied	Not required		
Signature Status:	Unsigned	1	Convict © 2000-2009 Thems Eicher Scientific Inc. All rights reserved
		-	Copyright © 2000-2009 Thermo Fisher Scientific Inc. All rights reserved.
			PESIII T 3 SD3 Build 517 Hot Fir 1
			RESULT 5 575 Build 517 HOLFK 1
		~	
<	(5)		0
and an	1000		

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unity lab services by Thermo Fisher Scientific

Instrument Status Report Options

🕱 Instrument Status Report (Options	×			
Report Options ✓ Show status summary ✓ Show instrument serial numbers ✓ Show current values (power supply, temperature) ✓ Show detailed detector information ✓ Show validation wheel information ✓ Show attenuator information					
 Show external validation stan Show device specific informa Show gas cell options 	 Show external validation standards information Show device specific information Show day cell options 				
Clear All Select All					
✓ Save report to disk ✓ Use digital signature ✓ Create service log entry					
	ОК	Cancel			

Select All then OK

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Carefully review the report and make sure all Instrument Status Values Pass, verify serial numbers, check installed sampling modules, etc. By Default a copy of the completed Instrument Status report is saved to C:\RESULTData\Archive\Maintenance. An example of a file in the folder is *Instrument Status 4C8D2AEB-3A7A-424A-A180-13333076109A6.htm. Provide Technical Support with the most recent dated file in the folder.*

Instrument Status Report

Administration Logs Stands	ards <u>M</u> aintenance Se <u>r</u> vice				
			Select Workflow V	alPro Qualification Verify	Workflow Log Off
USMAD-SERTRAIN2/Administrator	Report Spectra Trend				
	Date of report:	3/2/2007 4:1	0:27 PM (GMT-06	:00)	
ValPro: Verification:	Operator name:	Administrator			
Not required Not required	Antaris serial number:	AHY060021	5		
Instrument Status	Software Configuration				
🗎 Instrument Sta 03-02-2007 16:1	RESULT version: 3.0 Build 197				
	Instrument Status				
	Autosampler Add-in: device not connec	ted			
	Laser is within manufacturers specification Laser alignment is within manufacturers specification Source is within manufacturers specification Power is within manufacturers specification Instrument is scanning.	ons. specifications. tions. ions.			
	Title	Actual	Minimum	Maximum	Pass/Fail
	Plus 5 (volts)	5.08	4.5	5.5	Pass
	Plus 12 (volts)	11.95	10.8	13.2	Pass
	Minus 12 (volts)	-12.02	-13.2	-10.8	Pass
	Laser X (volts)	7.9	4	12	Pass
Report Instrument Status	Laser Y (volts)	7.8	4	12	Pass
Archive Results End Workflow Instrument Status	Laser R (volts)	8	4	12	Pass
<	Laser current (amps)	0.64	0.2	1.3	Pass

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Select the Maintenance menu and then select Align Instrument.

Align Instrument



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Click the Start button.

R Align Instrument		
Select Start to begin the alignment process. This will take several r	ninutes	-
Select Stark to begin the alignment process. This will take several h	In the cost	-
		X
 		>
Create service log entry upon completion		
	Start	Cancel

The Align Instrument will start and when it is complete record the alignment complete value for review at a later time. Alignment values between 6 and 7 are typical for a working Antaris system.

Alignment Complete

🖬 Align Instrument	
Set up instrument for align process. Align laser Alignment complete: 6.92	
	×1
Create service log entry upon completion	OK Start Cancel

Select OK to close Alignment Instrument window.



Select the *Maintenance* menu and then select *Instrument Check*.

Instrument Check



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Select *Transmission Sample under the Sample type pull-down menu*, Archive spectra data and Archive reports boxes and then click OK.

Instrument Check

R Instrument Check	$\mathbf{\times}$
Sample type:	
Transmission Sample	•
Options Image: Archive spectral data Image: Archive reports Archive base name: Instrument Check Transmission Sample Image: Bequire digital signature Create service log entry upon completion	-
OK Cancel	

An Instrument Check includes four spectrums an Interferogram, Single Beam, 100% Line and a Polystyrene sample. Identify the resulting spectra. This is a visual test. There are no pass/fail limits.







Repeat the Instrument Check process for all beam paths available.

Instrument Check Integrating Sphere (not highlighted)

🕫 Instrument Check		
Sample type:		
Transmission Sample		-
Transmission Sample Integrating Sphere Sample Tablet Sample SoftGel Sample Fiber Optic Sample Blend Analyzer Sample Hequire digital signature Create service log entry upon completion	ОК	Cancel

The Spectra and Reports are saved in the C:\RESULT Data\Archive folder. This is the default path, but customers may change this path in Result Options. In the example below one would be interested in the Instrument Check.spa format files. Send the most recent dated Instrument Check spa files to Technical Support

RESULT Data\Archive Folder

Name		Date modified	Type	Size
Instrument Check Eiber Ontic Sample 100% Line 5727E7C5-DAFE-	4FDB-9C3E-F008C1F09236 spa	3/20/2017 3:51 PM	OMNIC	70 KR
Instrument Check Fiber Optic Sample 100% Enc 97277 C9 DATE	51-4928-B5B8-11B97FEA345D.spa	3/29/2017 3:51 PM	OMNIC	41 KB
Instrument Check Fiber Optic Samp Type: OMNIC	8-A719-E27E52DFA861.htm	3/29/2017 3:51 PM	Chrome HTML Do	1 KB
Instrument Check Fiber Optic Samp	B07A-C805C9659BDF.htm	3/29/2017 3:51 PM	Chrome HTML Do	1 KB
Instrument Check Fiber Optic Sample Polystyrene C/3B12/1-9253	-416F-9DF4-2BAFE900E92C.spa	3/29/2017 3:51 PM	OMNIC	79 KB
💽 Instrument Check Fiber Optic Sample Polystyrene Plot 5359AAEF-	8280-41AF-AFC7-CDEE507F47E9.png	3/29/2017 3:51 PM	PNG image	3 KB
🚰 Instrument Check Fiber Optic Sample Single Beam 96F15690-C86	0-4C6C-A396-113069724933.spa	3/29/2017 3:51 PM	OMNIC	47 KB
Instrument Check Fiber Optic Sample Single Beam 536F0E11-2237	7-4703-B5EE-98D426DF3AC9.htm	3/29/2017 3:51 PM	Chrome HTML Do	1 KB
🕵 Instrument Check Fiber Optic Sample 100% Line Plot 44307FBD-9	EE1-45C8-BD18-3C68DC5C1769.png	3/29/2017 3:51 PM	PNG image	3 KB
📭 Instrument Check Fiber Optic Sample Single Beam Plot 6809972C	-0228-4BCF-8D3D-9F083E8FA65B.png	3/29/2017 3:50 PM	PNG image	4 KB
📭 Instrument Check Fiber Optic Sample Interferogram Plot 89AF9A	14-B726-4521-9649-04AB59D44B33.png	3/29/2017 3:50 PM	PNG image	2 KB
Instrument Check Integrating Sphere Sample 100% Line 6B54E918	-405D-432E-A8DF-D2FD3A18D00E.spa	3/29/2017 3:48 PM	OMNIC	79 KB
Instrument Check Integrating Sphere Sample 100% Line 877ADBB	C-C5ED-44CE-8A27-035AD69E9029.htm	3/29/2017 3:48 PM	Chrome HTML Do	1 KB
Instrument Check Integrating Sphere Sample Interferogram 73329	EEA-7E9A-442D-A759-0BB7EE45A54C.htm	3/29/2017 3:48 PM	Chrome HTML Do	1 KB
Instrument Check Integrating Sphere Sample Interferogram 53995	50F-F004-4DCA-B139-C4EB33A46646.spa	3/29/2017 3:48 PM	OMNIC	41 KB

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If you have ValPro

Select the Administration menu and then ValPro Options.



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Select Instrument qualification test and then click OK

Instrument qualification test

1	ValPro Options		X
4			
	General Options		
	Qualification instructions: None	Detach	Attach
	Qualification frequency: Not required		•
	Digital signature		
	Print final reports		
	Align instrument before running ValPro		
	ValPro System Tests		
	Instrument qualification test		
	Software and Algorithm qualification test		
	ValPro Sampling Module Tests		
	Transmission module qualification using external standards		
	Integrating sphere qualification using internal standards (validation wheel)		
	Sable probe qualification using external standards		
	Sabih probe qualification using internal standards		
	Left SablB probe qualification using internal standards		
	Left SabIR probe gualification using external standards		
	Tablet analyzer qualification using internal standards		
	SoftGel analyzer qualification using internal standards		
	Target Blend analyzer qualification using external standards		
	Customer Qualification		
	Workflow path:		
	Workflow filename:		Attach
		OK	Cancel

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Select *ValPro Qualification* to qualify the instrument, Tests Include Signal to Noise (S/N), energy ratio, short term stability etc. If the test is successful, the report will show two green check marks (Pass) in the last section.



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Repeat the ValPro test for the Integrating Sphere (if have this accessory).

Integrating Sphere qualification using internal standards

1	ValPro Options		×
4			
	General Options		
	Qualification instructions: None	Detach	Attach
	Qualification frequency: Not required		•
	Digital signature		
	Print final reports		
	Align instrument before running ValPro		
	ValPro System Tests		
	Instrument qualification test		
	Software and Algorithm qualification test		
	ValPro Sampling Module Tests		
	Transmission module qualification using external standards		
	Integrating sphere qualification using internal standards (validation wheel)		
	Integrating sphere qualification using external standards		
	SablR probe qualification using internal standards SablR scale gualification using internal standards		
	Sabih probe qualification using external standards		
	Left SablB probe qualification using internal standards		
	Let a don't probe qualification using internal standards		
	SoftGel analyzer qualification using internal standards		
	Target Blend analyzer qualification using external standards		
	Customer Qualification		
	Workflow path:		
	Workflow filename:	<u></u>	Attach
		04	Canad
			Cancel

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Repeat ValPro test for the SabIR probe (if have this accessory)

SabIR Probe qualification using internal standards

1	ValPro Options		X
	General Options		
	Qualification instructions: None	Detach	Attach
	Qualification frequency: Not required		•
	Digital signature		
	Print final reports		
	Align instrument before running ValPro		
	ValPro System Tests		
	Instrument qualification test		
	Software and Algorithm qualification test		
	ValPro Sampling Module Tests		
	Transmission module qualification using external standards		
	Integrating sphere qualification using internal standards (validation wheel)		
	SablB probe qualification using internal standards		
	SabIR probe qualification using external standards		
	Left SabIR probe qualification using internal standards		
	Left SabIR probe qualification using external standards		
	Tablet analyzer qualification using internal standards		
	SoftGel analyzer qualification using internal standards		
	Target Blend analyzer qualification using external standards		
	J Lustomer Qualification		
	Workflow path:		
	Workflow filename:		Attach
		ОК	Cancel
			Carloon