On behalf of your SCOUT200 Leadership and Development Teams.

SCOUT200 v22.2

What's New in SCOUT200 v22.2

# SCOUT200 version 22.2 [Nov 2022]

Bently Nevada presents the v22.2 release of the SCOUT200 SI Collector App, delivering key new capabilities:

> Cross Channel Phase Measurement Set Machine Speed from Spectral Peak 123 RPM 🎽 至 ¢ X-Phase Disp 10Hz ÷ ∻ 🗎 💽 59.8 mm/s rms 59.46 @ 3000 CPM 160 8.997 Hz (540 CPM) 140 100 80 60 40 897 15% 55.98 140 120 kCPN 20 40 60 80 II PAUSE 1 DI

Bently Nevada remains focused on delivering the world's premier plantwide machinery management solutions through bi-annual product releases.

Thank you,

Nigel Leigh.

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Sonu Jain, Technical Product Manager

Bently Nevada

Nigel Leigh, Product Line Manager







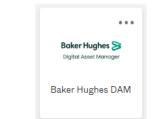


### **1. V22.2 CAPABILITY OVERVIEW**

SCOUT200 v22.2 Capabilities							
<u>Feature</u>	<u>Description</u>	<u>Section</u>					
Cross Channel Phase	SI Collector app now allows you to measure Cross Channel Phase. This displays amplitude, phase and coherence data in a Spectrum, a Table, and a Polar Plot. Cross Channel Phase reports can be saved as pdf files from the app.	2					
Set Machine Speed from Spectral Peak	The SI Collector app now allows you to use a spectral peak to set the speed for all points on a machine train.	3					
Receive Balance jobs into System 1	System 1 can now receive balance jobs from SCOUT200 via both Instrument Mode and Remote Comms (in addition to the existing File mode). The Balance jobs tab displays all the Balance jobs performed on the selected machine.	4					

Note: A video providing an overview of the v22.2 SCOUT200 enhancements is in the Bently Nevada Tech Support Training Library. A valid M&S agreement is required to access the video. Steps to follow:

- Go to bntechsupport.com and either login or register for access.
- Select the tile labelled "Digital Asset Manager, Baker Hughes DAM"
- Select "Assets"
- Select Asset Type = Videos
- In the main search bar (top center), enter "SCOUT200"





#### **2. CROSS CHANNEL PHASE**

With Cross Channel Phase, you can perform Phase analysis to diagnose machine faults such as misalignment, resonance, soft foot, and looseness.

The Cross Channel Phase measurement option is now available on the Measure screen. Very few parameters need to be set to take the measurement. The most important is the approximate "Frequency of Interest", which is typically the frequency of some excessive vibration in the machine train. It does not need to be the machine running speed.

Additionally, you can choose the measurement type (Accel, or Vel, or Disp), the required filter bandwidth (to exclude nearby frequencies), and the number of averages (to give stable readings).

While recording, a spectrum plot shows the live vibration from each sensor. You can zoom-in on this spectrum and drag the cursor to adjust the frequency of interest. It'll automatically snap to the closest peak. The app then updates the amplitude, phase and coherence data in the table and polar plot. The polar plot includes a tail of smaller dots for the previous readings, so you can easily see if the measurement is stable.

Press the Report button to save a pdf report of this measurement. The app will prompt you to enter the machine name and sensor locations etc (and it remembers these values for your next measurement at a nearby location). This useful detail is included in the reports.

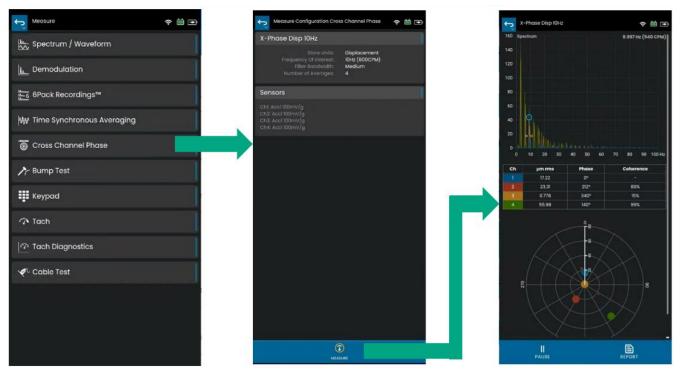


Figure 2-1 Cross Channel Phase

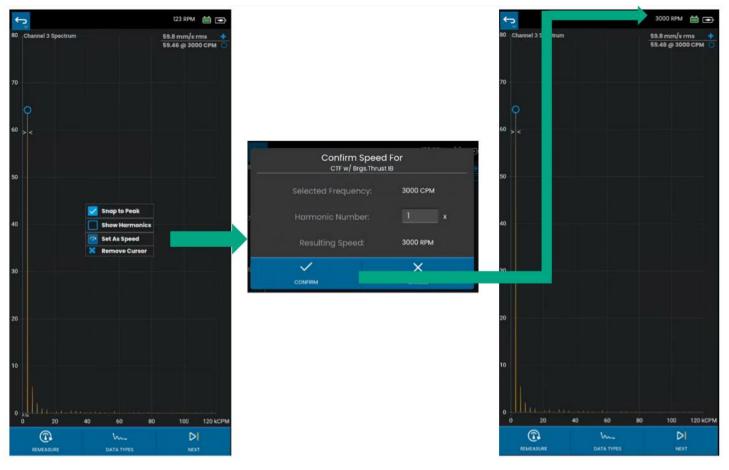


#### **3. SET MACHINE SPEED FROM SPECTRAL PEAK**

With v22.2, a long press on a spectrum cursor now brings up the option to "Set As Speed". This allows you to use a spectral peak to set the speed for an entire machine train. A confirmation dialog also allows you to use a harmonic peak, for example if blade-pass is a very distinct peak. This speed is then applied to all measurements at this point.

But the app goes further, applying the correct running speed for *all points* on the machine train, even when gearboxes or pulleys etc. are present. It does this using the machine properties that were configured in System 1.

Note that Set As Speed is only available for Async measurements, as Sync-sampled measurements require a tachometer, so the machine speed is already known.







#### **4.RECEIVE BALANCE JOBS IN SYSTEM 1**

System 1 v22.2 can now receive balance jobs from SCOUT200 via both Instrument Mode and Remote Comms (in addition to the existing File mode). The balance job data is received along with vibration data during the normal Receive process. System 1 displays balance jobs in the **Balance Job** tab under the **Case History** tab, for the selected machine.

File Portable Tools	Help			🛇 Display 💥 Configure				
Machines	Devices	Status	Events	Plots	Case History			
Scout_200_RemoteComm		Reviews	Plot Records	Notes	Balance Job			
<ul> <li>[]] Train_A_1</li> <li>[]] Train_B_2</li> </ul>		Path			Asset Name	Tag Name	Balance Speed	Device
[30]		Scout_200_Remoted	Comm > Train_B_2		Train_B_2	MotorBeltCTF	4200 rpm	SCOUT200
		Scout_200_RemoteComm > Train_A_1			Train_A_1	MotorFanSetBeltDriven	4200 rpm	SCOUT200
		Scout_200_Remoted	Comm > Train_A_1		Train_A_1	MotorFanSetBeltDriven	4200 rpm	SCOUT200

Figure 4-1: Balance Job data received in System 1



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