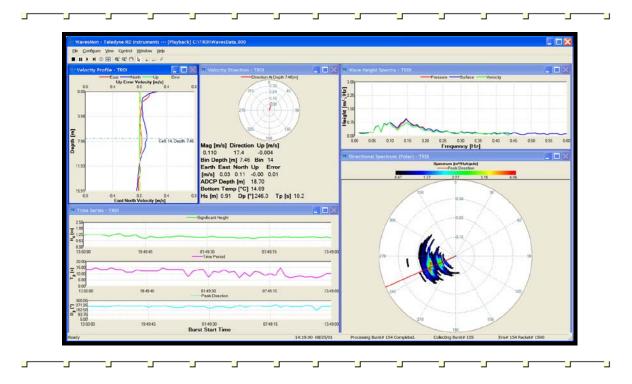
WavesMon v3.07 Quick Start Guide



P/N 957-6233-00 (May 2010)



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<u>NOTES</u>



WavesMon Quick Start Guide

Introduction

Thank you for purchasing the Waves upgrade for your WorkHorse ADCP. This Quick Start Guide will lead you through the steps required for a successful waves deployment. Please read the entire guide, and then follow the instructions in the order they are presented. Additional information can be found in the WavesMon User's Guide that is supplied on CD-ROM.



NOTE. To purchase a printed copy of the WavesMon User's Guide, contact our Customer Service department at rdifs@teledyne.com or call (858) 842-2600 and order P/N 957-6232-00.

The latest versions of our software can be downloaded through our Customer Support section on our web site (<u>http://www.rdinstruments.com/support/support.aspx</u>). You must register before you are able to download.

How to Contact Teledyne RD Instruments

If you have technical issues or questions involving a specific application or deployment with your instrument, contact our Field Service group:

Teledyne RD Instruments	Teledyne RD Instruments Europe
14020 Stowe Drive Poway, California 92064	2A Les Nertieres 5 Avenue Hector Pintus 06610 La Gaude, France
Phone +1 (858) 842-2600	Phone +33(0) 492-110-930
FAX +1 (858) 842-2822	FAX +33(0) 492-110-931
Sales - rdisales@teledyne.com	Sales – <u>rdie@teledyne.com</u>
Field Service – <u>rdifs@teledyne.com</u>	Field Service – <u>rdiefs@teledyne.com</u>
Client Services Administration –	rdicsadmin@teledyne.com

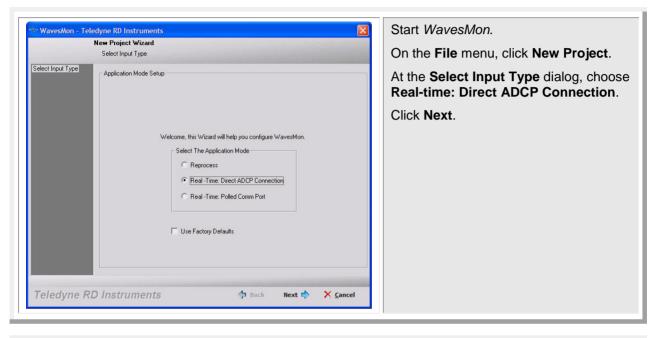
Client Services Administration – <u>rdicsadmin@teledyne.com</u> Web: <u>http://www.rdinstruments.com</u> 24 Hour Emergency Support +1 (858) 842-2700

Collecting Real-Time Data with WavesMon

WavesMon is designed for real-time data collection and processing of wave data gathered by a WorkHorse ADCP.

Real-time: Direct ADCP Connection

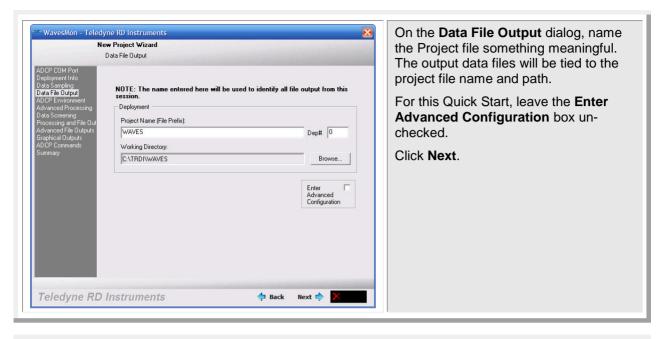
Use this option if the ADCP is connected to the computer running WavesMon.



AC WavesMon - Teledo Na ADCP CDM Port Deployment Info Data Sampling Data Site Dutpat ADCP Environment Advanced Processing Data Storening Processing and File Outp Advanced Forceming Processing and File Outp Advanced Forceming Summary	Project Wizard ADCP COM Port Input Communication Setup For Direct ADCP Connection Connected to: [j] [BREAK Wakeup A] WorkHorse Broadband ADCP Version 16.27 RD Instruments (c) 1996-2005 Al Flights Reserved. >CB811 > Connected with ADCP Communi	Comm Port COM 1 V Baudrate 115200 V Databits 8 V Parity None V Stopbits 1 V Connect Auto Detect ications Timing akeup Timeout 3 V sec 1 Timeout 3 V sec	Enter the ADCP's communication set- tings. Try to select the fastest Baud rate that can reliably communicate with the ADCP. Click the Connect button to test the communication settings. You should see the wake-up message in the Con- nected to: box. Click Next .
Teledyne RD	Instruments 🔶 Bad	k Next 🖒 🗙 <u>C</u> ancel	

	w Project Wizard Deployment Info		Select the ADCP's System Frequency
DCP COM Pott pelogment Info Jata Sampling Jata File Output JDCP Environment dvanced File Outputs Jata Screening trocessing and File Out dvanced File Outputs JDCP Commands ummary	ADCP Type and Location System Frequency System Type • 1200 kHz • Verticat Up - Looking • 300 kHz • Verticat Up - Looking • 300 kHz • Verticat Up - Looking • 0ther Options • Horizontal • Other Options • Moored (Dynamic) Mounting	ADCP Environment Depth 10 m Altitude Above Bottom 0 m Magnetic Variation 0 deg	Select the System Type. Enter the ADCP Environment information. The Depth is the estimated depth of water from the ADCP face to the surface. The Altitude is the distance of the ADCP face from the seafloor. Enter the Magnetic Variation to correct the data from magnetic north to true north.
			If the ADCP is using a Moored (Dynar ic) Mounting , then check the box. (Note, this will force the ADCP to use UVW rather than array processing) Click Next .

N	lew Project Wizard Data Sampling	parameters.
DCP COM Part eployment Info ats Sanoping oto File Output OCP Environment dvanced Processing ats Screening ats Screening ats Screening aphical Outputs OCP Commands Jummary	Waves and Currents Sampling Waves Sampling Butst Duration 20 min Time Between Start of Bursts 60 min Samples per Burst 2400 Currents Sampling Time Between Averaged Ensembles 10 min Start Time C Now C Later 4/21/2006 10.28.14 AM	Waves Sampling – enter the Burst Duration and the Time Between start of Bursts. The recommended setting is 20 minutes Burst Duration with 60 minutes Time Between start of Bursts and 2400 Samples per Burst. Currents Sampling – enter the Time Between Averaged Ensembles. The recommended setting is 5 minutes.
eledyne RD	Instruments 💠 Back Next 💠 🔀	Start Time – Click Now to start pinging as soon as the commands are sent, or Later to delay pinging. To make data analysis easier, it is recommended to delay the start time until the hour mark. Click Next.



N	lew Project Wizard Summary	To save the Configuration and Dep-
CP COM Part playment Info ta Sampling ta Sie Output CP Environment vanced Processing ta Screening cessing and File Out vanced File Outputs phical Outputs CP Commands mmary	Configuration and Deployment Summary	Save Summary Click Finish.
eledyne RD	Instruments 💠 Back Finish 4	



NOTE. If any ADCP command fails, a warning message will be displayed. Click **Stop** and review/correct the problem.

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Real-Time: Polled Comm Port

The **Polled Mode** configures *WavesMon* to listen to the COM port only. While in the Polled Mode, data will continue to be collected. However, the user will not be able to send commands to the ADCP.

	New Project Wizard	
	Select Input Type	On the File menu, click New Project .
Select Input Type	CApplication Mode Setup	At the Select Input Type dialog, choose Real-time: Polled Comm Port .
		Click Next.
	Welcome, this Wizard will help you configure WavesMon.	
	Select The Application Mode	
	○ Reprocess	
	C Real -Time: Direct ADCP Connection	
	Real -Time: Polled Comm Port	
	Use Factory Defaults	
Taladuna P	D Instruments 🔅 🖓 Back Next 🖒 🗙 Cancel	

C WavesMon - Teledyne RD Ins New Project ADCP COM	Wizard	Enter the ADCP's communication set- tings. Try to select the fastest Baud rate that can reliably communicate with the
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ADCP Environment Advanced Processing Data Screening Processing and File Out Advanced File Dutputs Graphical Outputs ADCP Commands Summary	Input Communication Setup For Polled Mode Comm Port COM 1 Baudrate 115200 Databits 8 Parity None Stopbits 1	Click Next.
Teledyne RD Instru	ments 💠 Back Next 🕸 🔀	

	Project Wizard Data File Output NOTE: The name entered here will be used to identify all file output from this session. Deployment Project Name (File Prefix): Warking Directory: Cr\TRDIVWAVES Browse Enter Advanced Configuration	On the Data File Output dialog, name the Project file something meaningful. The output data files will be tied to the project file name and path. For this Quick Start, leave the Enter Advanced Configuration box un- checked. Click Next .
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	New Project Wizard Summary	e Configuration and Dep-
DCP CDM Port leployment Info leada Samping leada Samping leata File Output DCP Environment dvanced Processing and File Out dvanced File Outputs DCP Commands UCP Commands ummary	Configuration and Deployment Summary Deployment Summary 1200 KHz Upward ADCP, Firmware Vers. 0.00 in 10.0 Meters Depth Start Time is Now Bursts Will be Collected 1 Every 60.00 Minutes Each Burst Contains 2400 Samples Collected at 2.0Hz 43 Depth Cells of 0.35 Meters Width, Starting 0.00 Meters beyond the Transducer. Wave Processing Summary Maximum could Frq. 0.50 Hz. Minimum Included Wave Period 2.00 s. Height and Directional Spectrum have 128 Freq Bands from 0 to 1.0 Hz 	ummary, click Save Sum-

	ing data.
∰ ∉ ∉ (% ⊾	The screen will update as data is received (check the Status bar to see what the program is doing).

Reprocess Data with WavesMon

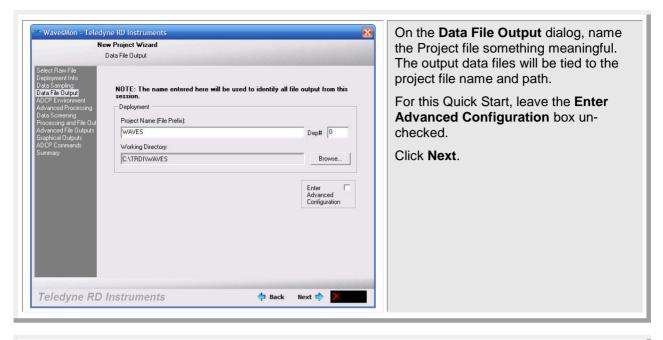
WavesMon can also be used for reprocessing the wave data gathered by a Self-Contained ADCP with Waves enabled. A sample data file named *WaveData.000* is included on the Waves CD. The file is not installed to your computer by default due to the large file size (approximately 90 MB).

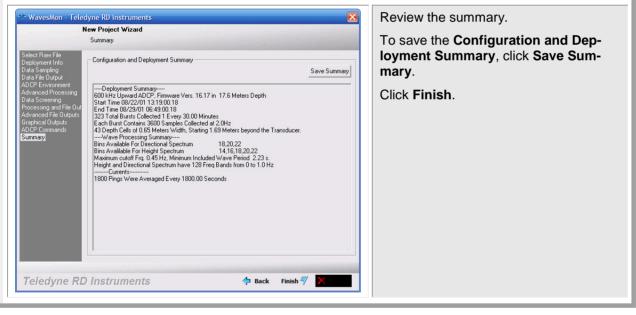
New Pro	oject Wizard	
	Input Type	On the File menu, click New Project .
elect Input Type Applic	cation Mode Setup	At the New Project Wizard dialog, choose Reprocess .
		Click Next.
	Welcome, this Wizard will help you configure WavesMon.	
	Select The Application Mode	
	Reprocess	
	Real -Time: Direct ADCP Connection Real -Time: Polled Comm Port	
	Use Factory Defaults	
eledyne RD Inst	truments 🗇 Back Next 💠 🗙 <u>C</u> ano	

	lew Project Wizard Select Raw File	cessing dialog box, select the data file
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	New Project Wizard Deployment Info				the ADCP was deployed.
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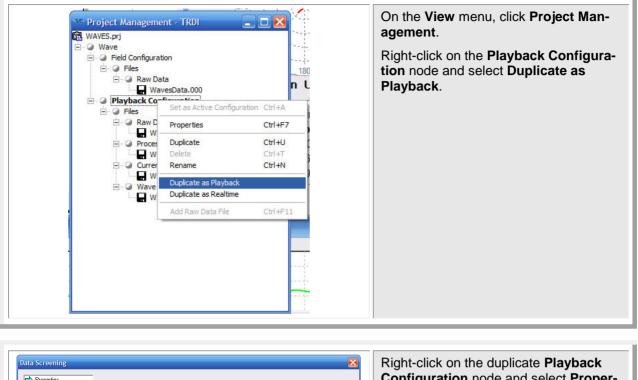
	ew Project Wizard Data Sampling		The Data Sampling screen shows the Waves and Currents Sampling para- meters used during data collection. No
elect Raw File epiloyment Info da Sampling ata File Dutput DCP Environment dvanced Piccessing ata Screening rocessing and File Out dvanced File Outputs DCP Commands ummary	- Waves and Currents Sampling Waves Sampling Burst Duration Time Between Start of Bursts Samples per Burst Currents Sampling Time Between Averaged Ensembles	30 min 30 min 3600 330 rein	changes are allowed. Click Next .
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File	Configure	View	Control	Window	Help		Click the ▶ button to begin processing.
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Adjusting Playback Settings



Data Screening Properties Select Raw File Data Screening Data Screening Velocity [m/s] Surface Track [m] Min Screening Processing and File Advanced Flo Output Max Change 0.2 Pct Good Thresh 90 90 90 screening Height 0 Screening Height 0	Configuration node and select Proper- ties. Make changes as needed to the proper- ties. For details, see the Waves User's Guide.
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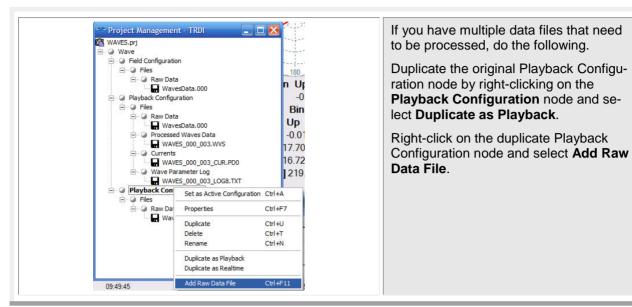
Batch Processing Data Files

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Look in: 🔁 My Data

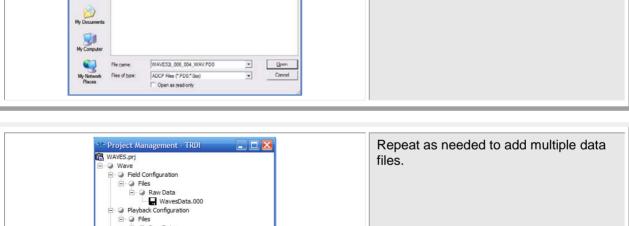
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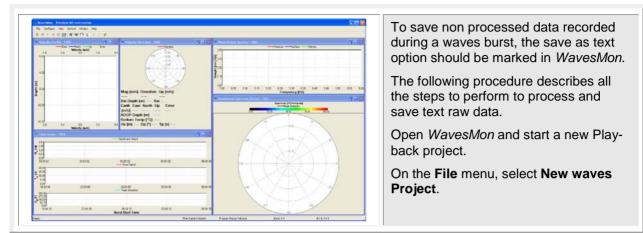
Select the waves raw data file (*.000 or *.PD0).

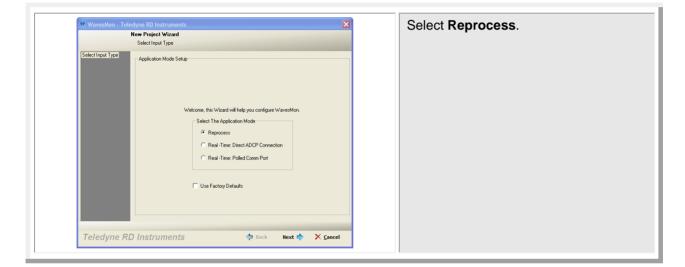
Click Open.



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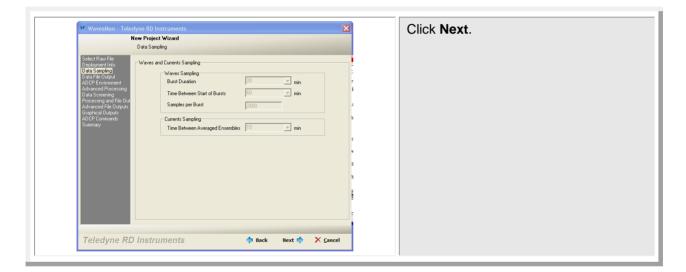
Export Raw Wave Burst Data





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Data Screening Processing and File Out Advanced File Outputs Graphical Outputs	Depth Correction m Depth From	Remove Top Cell Scan Depth Cells Available	
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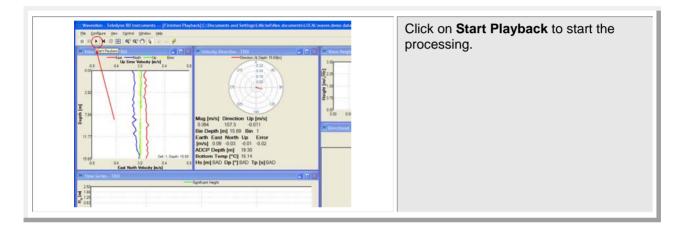
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