## Product(s): MV1000

Doc. No. MV.YAI-PN.036

IYASKAWA

#### How to take Inverter trace data using Drive Wizard Plus MV

If the drive faults have not been solved by standard troubleshooting practices, please take "Inverter Trace Data" and send the files to mvsupport@yaskawa.com for Yaskawa technical assistance.

The Trace function provides a high-speed and low-speed data trace using either an mtd or .csv file extension/format. The .mtd file allowed future viewing of saved data trace files within DriveWizard Plus MV, while the .csv file allows one data trace data to be viewed in Excel.

The High-Speed Trace Function acquires 3800 data samples before the fault and 200 samples after the fault using a sampling rate of 250 us.

The Low-Speed Trace Function acquires 450 data samples before the fault and 50 samples after the fault using a sampling rate of 50 ms.

#### Trace Data Steps

#### Step 1: Connect to the MV1000 using USB or RS-232 serial (keypad port) connection.



The MV1000 has two PC connection methods: USB (preferred) and Serial.

For more information on DriveWizard connection cables, search "DriveWizard Cables" at Yaskawa's Solution Center or click on the below link:

https://solutioncenter.yaskawa.com/selfservice/viewdocument.do?noCount=true&externalld =10071&sliceId=1&isLoadPublishedVer=&docType=kc&docTypeID=DT\_FREQUENTLYAS KEDQUESTIONS\_1&stateId=3182&ispopup=true&cmd=displayKCPopup&dialogID=64889

## Title: DriveWizard Plus Trace Data Download Procedure

## Product(s): MV1000

Doc. No. MV.YAI-PN.036

YASKAWA

<u>&ViewedDocsListHelper=com.kanisa.apps.common.BaseViewedDocsListHelperImpl&open</u> <u>edFromSearchResults=true</u>

USB (Preferred):

A USB connection can be made using a USB Type A to Type B cable. The Type B connection would connect to the above USB Type B port.



#### Serial:

A serial connection can be made by switching the Local/Remote Switch to the remote position (down). Then, using cable UWR00468-2, connect the PC to the MV1000's Remote RS-232 Keypad Port. A serial to USB Type A connector is required to connect from the nine-pin subminiature D connection to the PC's USB port. Cables UWR00468-1 and UWR01076-1 are acceptable alternatives.



Product(s): MV1000

Doc. No. MV.YAI-PN.036

YASKAWA

## Step 2: Boot-Up the "Drive Wizard Plus MV" Application Software.

DriveWizard Pluc MV		- 0 X
Ele View Connect Tool Heb		
		YASKAWA ELECTRIC CORPORATION
Function Tree • 4 ×		All Monitor • 4 ×
- Drive		Category All
- K Parameter Edit	Connect X	Parameter No. Name Value Unit
- The Direct Parameter edit		
	묵매 🛛 🔍	
El Cel Montor		
ID Monitor	Connect Cancel	
Sciloscope	communication interface *	
Trace	COM	
III Event Log		
S Motor Tune		
- E C Test Run	None (USB connection axis information is	
Pattern Run	retrieved in the lump).	
O Trouble Shooting		
	Protocol Setting	
		User monitor 🕹 All Monitor
Direct Parameter edit		- a ×
No. Name Working v Units D	rive's value Drive's unit Min Max Default	
Pearly .		CAP NUM SCRL

## Step 3: With DriveWizard Plus MV launched, connect to the drive.

Select your communication interface (USB or COM), then select Connect.

USB:

Serial:





## Product(s): MV1000

Doc. No. MV.YAI-PN.036

#### **Step 4: Acquire Trace**

To acquire the trace data, double click "Trace" from the function tree. The following screen should appear.

Cell Monitor Cell Monitor Cell Monitor Cell Monitor Cell Monitor Cosciloscope Trace Motor Tune Motor Tune Motor Tune Tots Run Motor Tune Tots Run Motor Tune Tots Run Motor Tune Tots Run Motor Tune	Function Tree	• # X		DriveWizard Plus MV - Trace #31	ool Help			0						-	0 X
Without Status       Without Status         Without Status       Without St						1121	2.11.10.10	s II &	BUISING						
Parameter Edt Direct Parameter edit Montor V Al Montor Cell Montor Status Montor Status Montor Status Montor Movement Montor Status Montor Trace Cell Montor Movement Montor Status Montor Movement Montor Cell Montor Trace Movement Montor Trace Trace Motor Tune Trace Test Run Montor Tune Test Run Montor Tune Test Run Montor Tune	Drive #31(MV1000)			HV1000-S0127								YASK	AWA ELECTR	IC CORPORAT	ion> 🛄
Prince base     Prince	R Parameter Edit			Function Tree • # ×	Trace 4	#31					_		= × /	Il Monitor #31	• a ×
Windowski	Direct Decemptor o	43		Crive #31(MV1000)	0						Operation panel		· • •	Daramater No.	· 80
Image: Status Monitor         Image: Status Monitor <td< td=""><td>Monitor</td><td>on</td><td></td><td>Grand Parameter Edit</td><td>A ST</td><td>* 5</td><td>▲ ▲ 5⊺ 5⊺</td><td>1</td><td></td><td></td><td>Setup Trace Status</td><td></td><td>tory/Overlag</td><td>U1-01 U1-02 U1-03</td><td>Freq. 0.00 F Outp. 0.00 F Outp. 0.0 F</td></td<>	Monitor	on		Grand Parameter Edit	A ST	* 5	▲ ▲ 5⊺ 5⊺	1			Setup Trace Status		tory/Overlag	U1-01 U1-02 U1-03	Freq. 0.00 F Outp. 0.00 F Outp. 0.0 F
Cell Monitor Di Monitor Status Monitor Status Monitor Oscilloscope Coscillos	'관 All Monitor [V] User monitor			Cel Monitor							Trigger List		ping /	2 U1-04 2 U1-05 2 U1-08	Colt. 2 Moto 0.00 F Outp 0 N
Image: Status Monitor         Image: Status Monitor <td< td=""><td>Cell Monitor</td><td></td><td></td><td>Status Monitor</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Data IO</td><td></td><td></td><td>€ 01-07 € 01-08</td><td>Outp 0 k</td></td<>	Cell Monitor			Status Monitor							Data IO			€ 01-07 € 01-08	Outp 0 k
Image: Status Monitor       Image: Status Monitor         Image: Status Monitor       Image: Status Monitor <td>IO Monitor</td> <td></td> <td></td> <td>Cociloscope</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>CH1 Deta1</td> <td></td> <td>8</td> <td>U1-09 U1-10-00 U1-10-01</td> <td>Torq0.0 * DigtOpen DigtOpen</td>	IO Monitor			Cociloscope							CH1 Deta1		8	U1-09 U1-10-00 U1-10-01	Torq0.0 * DigtOpen DigtOpen
Coscilloscope Coscil	Status Monitor	tor	17	Cuning							Display C Hidden			U1-10-02 U1-10-03 U1-10-04	Digt. Open Digt. Open Digt. Open Digt. Open
Control Processor Control Proceson Control Processor Control Processor Control Processor Control				Pattern Run Trouble Shooting							Deta2		8	U1-10-06 U1-10-07 U1-11-00	Digt. Open Digt. Open Digt. Closed
	Trace				-4+ -5-	4	4 .4 5 .5				CH3 Data3		8	U1-11 - 01 U1-11 - 02 U1-11 - 03	Digit Open Digit Open Digit Closed
	III Event Log					Ŧ		-1000 -8	003- 000	-600 -200 0	· · · · · · · · · · · · · · · · · · ·			User moni.	All Monitor
Image: Second					Direct Paramet	er edit #31							_		• # X
Test Run	Motor Tune				No. Name	Working v Units	Drive's val	ue Drive's unit Min	in Max	Default					
	- E C Test Run														
Pattern Run	Pattern Run														
O Trouble Shooting	Trouble Shooting														

## Step 5: Trace Status

From the operation panel, click on "Trace Status" to bring up the Trace Status window.

Operation panel	• <b>p</b>	Trace Status	
	liston	Trace Data Select	
Setup Trace Status	Y/Ov	Trace Hi stopped time	Trace Lo stopped time
	erla	1 24/03/07 15:45:14	1 24/03/07 15:45:14
Trigger List	pping	CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
ch operation		2 24/03/07 14:13:41	2 240307 1413 41
Data VO		CPF02 A/D Conversion Error	CPF02.A/D Conversion Error
CH1			
		3 24/03/06 13:16:22	3 24/03/06 13:16:22
		CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
Display O Hidden		4 24/03/06 11:26:17	4 24/03/06 11:28:17
Data2	_	CPF02.A/D Conversion Error	CPF02 A/D Conversion Error
Display Diiden		5 24/03/06 11:25:34	5 24/03/06 11:25:34
_ submit _ magni		CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
CH3			
Data3			
···· ··· ··· ··· ··· ··· ··· ··· ··· ·			Close

## **Title:** DriveWizard Plus Trace Data Download Procedure

## Product(s): MV1000

Doc. No. MV.YAI-PN.036

**YASKAWA** 

The Trace Status Window provides the last five high-speed trace files (left) and the last five low-speed trace files.

Trace Hi stopped time	Trace Lo stopped time
1 24/03/07 15:45:14	1 24/03/07 15:45:14
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
2 24/03/07 14:13:41	2 24/03/07 14:13:41
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
3 24/03/06 13:16:22	3 24/03/06 13:16:22
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
4 24/03/06 11:26:17	4 24/03/06 11:26:17
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
5 24/03/06 11:25:34	5 24/03/06 11:25:34
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error
CPFU2.A/D Conversion Error	CPF02.A/D Conversion Error



## Product(s): MV1000

Doc. No. MV.YAI-PN.036

#### Step 5: Download latest trace files.

The trace files are stored from most recent (1) to oldest (5). In most cases, the most recent trace files are required. Both the high-speed and low-speed files should be downloaded.

High-speed download:

Click on high-speed side number 1 to being download. A green circle will appear with "transferring data… please wait" appearing above the chart.

PLEASE NOTE, THE DOWNLOAD MAY TAKE TIME TO COMPLETE.

race Hi stopped time	Trace Lo stopped time	
1 24/03/07 15:45:14	1 24/03/07 15:45:14	
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error	
2 24/03/07 14:13:41	2 24/03/07 14:13:41	
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error	
3 24/03/06 13:16:22	3 24/03/06 13:16:22	
CPF02 A/D Conversion Error	CPF02.A/D Conversion Error	
4 24/03/06 11:26:17	4 24/03/06 11:26:17	_
CPF02 A/D Conversion Error	CPF02.A/D Conversion Error	
5 24/03/06 11:25:34	5 24/03/06 11:25:34	
CPF02.A/D Conversion Error	CPF02.A/D Conversion Error	

Transfering	data Please v	vait.				
		*	*			
5	5 <sub>T</sub>	5	5 <sub>T</sub>			
4-				+		
3-				+		
2+				+		
1-				+		
o+				+		
-1-				+		
-2+				+		
-3 -				<b>.</b>		
-4-						
5.						

To save the trace file, select "Trace" from the top menu and select "Save Trace File." This allows the trace file to be opened again using DriveWizard Plus MV.

<u>File View Connect</u>	T <u>r</u> ace <u>T</u> ool <u>H</u> elp		Save As	×
n n 1 🗆 🔿 🖬	Open Trace File		Save in: 🔁 New folder 🗸 🗸	• 🗢 🖄 🍅
	Save Trace File	-	Name No items match your search.	Date modified
MV1000-S0127	Save as CS <u>V</u> File			
unction Tree	Print Trace Data		File name: 20240403135134.mtd	Save
	Copy to Clipboard.		Save as type: Trace Data File (*.mtd)	Cancel
Parameter Edit	C <u>u</u> rsor		Comment.	
Direct Parameter edi	<u>E</u> xpand			
····· 난 All Monitor	Reduce			

## Title: DriveWizard Plus Trace Data Download Procedure

## Product(s): MV1000

Doc. No. MV.YAI-PN.036

**YASKAWA** 

To save the trace as a CSV file, select "Trace" from the main drop-down list and select "Save as CSV file."



Step 6: Follow the same process to open and save the Low-speed trace file.

1: Select Trace Status from Operation Panel

2. Click "1" button on

eration panel			History
Setup	Trace Status		Overla
Trigger	List		apping
h operation			
Data VO			
CH1 Data1			
		<u>-</u>	
🔾 Display 🔘	Hidden		
CH2 Data2			
Display O	Hidden		
СНЗ			
Data3			
		··· V	

low-spee	ed data trace
Trace Status	
Trace Data Select	
Trace Hi stopped time	Trace Lo stopped time

1 24/03/07 15:45:14	1 240 07 15:45:14
CPP02.A/D Conversion Error	the second rises Error
2 240307 14 13 41	2 240307 14 13 41
CPF82 A/D Conversion Error	CPF92 A/D Conversion Error
3 2403/96 13:16:22	3 2403/06 13:16:22
CPF82 A/D Conversion Error	CPF02.A/D Conversion Error
4 24/03/06 11:20:17	4 240306 11 26:17
CPF02 A/D Conversion Error	CPP02 A/D Conversion Error
5 240305 11:25:34	5 240306 1125:34
CPF02 AID Conversion Error	CP102 A/D Conversion Error

Wait for Trace to download



## 4: Save Low-Speed Trace file



# IYASKAWA

## Title: DriveWizard Plus Trace Data Download Procedure

## Product(s): MV1000

Doc. No. MV.YAI-PN.036

High-speed and low-speed "Trace Data" files should be emailed to mvsupport@yaskawa.com for Yaskawa technical assistance.

## Yaskawa Technical Phone Support:

## **United States**

Phone: 1-800-YASKAWA (927-5292)

dial 2 or 1-847-887-7457, dial 2

Drives Support Hours: 7:00am to 7:00pm (CST) Mon-Fri

Alternate Email: <a href="mailto:technical\_support@yaskawa.com">technical\_support@yaskawa.com</a>

Online: Submit Support Request