

# **GeneSys ADMA Support for CANape 19**

## Decoder for GeneSys ADMA Devices

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## **1** Specification

The scope of this document is the integration of GeneSys ADMA in CANape 19 (as of <u>Service Pack 5</u>). For higher CANape versions, separate installers are available. Please find a detailed description of the measurement setup and signals in the GeneSys Technical Documentation for ADMA 3.0.

Only data formats of version V3.3.2, V3.3.3 and V3.3.4 are supported currently for the integration in CANape. If there are any other firmware versions that you wish to use with CANape 19 and onwards, please do not hesitate to contact us.

You will find a description of the supported versions of the addons / signals in the CANape device Manager:

🐺 New Device						×
	Name: 0				22	
	ECU VX1000, Protocols, Diagnostic	Hesai Pandar	lbeoHAD	Ibeo Lux	Quanergy	
CANape Protocol Decoder for GeneSys ADMA 3.3.x decoding	Monitor CAN, Eth, FlexRay, LIN	Radar Raw Data	Velodyne	GeneSys ADMA 3.3.x		
	IO Digital/Analog I/O, GPS					
	<b>Video</b> Cameras, AVB					
	ADAS Radar raw data, LiDAR					
				Next Ca	Incel Help	



### 2 Measurement Setup with CANape 19

#### 2.1 ADMA Software Settings

The data output of the ADMA must be set to Ethernet 1.



Please browse to your ADMA web interface to setup the device and start the measurement. The default address for the ADMA is: 192.168.88.30. Please refer to the GeneSys documents for further information.

On page 3 of the ADMA web interface, head to the "Ethernet data output" section. Make sure you have entered the data as shown in the next illustration:

Ethernet data output	
Data Format	ADMAnet 🗸
Data Format Version	v3.3.4 🗸
Destination IP	255.255.255.255
Destination Port	1021

In this example we broadcast the data. You can also assign a dedicated IP Address here (e. g. 192.168.88.100).

#### 2.2 Hardware Setup

The following illustration will give you an overview on how to setup your hardware to perform a measurement with CANape.



Please attach the Ethernet cable to one of the ports of the VN5640 / any other Vector Ethernet Interface:





#### 2.3 Setup in CANape

#### 2.3.1 Installation of the Driver

To install the plugin with the help of a graphical setup wizard, simply double-click the setup routine (e. g. "Vector\_GeneSys\_ADMA\_3.3.3\_Setup\_2.0.0.exe") and follow the instructions.

Naming convention of setup files:

Vector\_GeneSys\_ADMA\_{firmware version}\_Setup\_{plugin version}.exe

The files will be installed into: \$CANape\_DIR/Exec64/Plugins/ProtocolDecoder/GeneSys/

The setup will create the following structure:

```
> CANape > Exec64 > Plugins > ProtocolDecoder > GeneSys
```

GeneSys_ADMA	10.03.2022 10:06	A2L-Datei	243 KB
GeneSys_ADMA.dll	01.06.2022 13:22	Anwendungserwei	2.532 KB
GeneSys_ADMA_3_3_2	10.03.2022 10:06	A2L-Datei	243 KB
GeneSys_ADMA_3_3_3	10.03.2022 10:06	A2L-Datei	244 KB
GeneSys_ADMAConfig	21.03.2022 15:49	JSON File	1 KB

#### 2.3.2 Handling the Devices

This section will describe the setup of the ADMA Unit in CANape. First, open the Vector Hardware Config and the Ethernet device configuration, design a network (named Ethernet1 in the picture) and a link to an Ethernet port on your VNxxxx:





-	VN5640 S/N 005011 - Vector Ethernet Device Configuration	– 🗆 X
File Home		0
Write New Segments	Ports Properties VLAN Filter Windows Configuration	
Segments 4	A X 🗄 Layout 🐉 Uplink 💌 🔄 Properties	Į ×
Used:	1/12 Ethernet1	
Switch	Link	Ethernet1
	Port13 [13]	Lised: 0/22
	Name	Identifier
Link	Add	Add
Physical Used: [1] [2] [3] Virtual Used: [3]	■ x 1/12 0/64	

In this example the ADMA is connected to ETH13 on the VN5640. We set this channel to CANape Ethernet 1. Please start CANape and create a new device from the section "ADAS  $\rightarrow$  GeneSys ADMA":





In the next step you will have to add the Ethernet network you created before:

Name:       myAdma         Comment:       Comment:         Select the network for your device.       ITransport Layer Type         Ethemet       Itemet         Network settings       Network settings         Network settings       Network settings         Network:       Network         Network:       Network         Network:       Network         Network:       Network	🐺 New Device		×
Networks: New preconfigured network Channel:	New Device	Neme: myAdma Comment: TransportLayer Type Ethernet TransportLayer Instances	×
Back OK Cancel Help		Networks: New preconfigured network. Channel:	New network



* *		
음 * General	General	
	Network	
	Name: myEthernet	
	Channel:	
	Communication VLAN Databases	
	Security	
	Use Security Security Manager	
	Security Profile: Vo security profile V Refresh Profiles	
	JP Settings	
	IP Settings Use static IPv4 address ∽	
	IP Settings Use static IPv4 address ✓ IP address: 192.168.0.2	
	IP Settings Use static IPv4 address ↓ IP address: 152.168.0.2 Subnet mask / Prefix: 255.255.0	
	IP Settings Use static IPv4 address IP address: 192.168.0.2 Subnet mask / Prefix: 255.255.255.0 M&F Satisfier	
	IP Settings Use static IPv4 address  IP address: Subnet mask / Prefoc  MAC Settings  (D f Ethomet Advance (D fuel)	
	IP Settings       Use static IPv4 address       ✓         IP address:       192.166.0.2	
	IP Settings Use static IP-4 address IP address: 192.168.0.2 Subnet mask / Prefix: 255.255.0 MAC Settings	
	JP Settings       Use static IPv4 address       v         IP address:       192.168.0.2	
	IP Settings       Use static IPv4 address       v         IP address:       192.168.0.2       v         Subnet mask / Prefbc       255.255.0       v         MAC Settings       v       v         IV use MAC ID of Ethernet Adapter (Default)       v       v         Use MAC Address:       v       v	
	IP Settings Use static IPv4 address IP address: 192 166.0.2 Subnet mask / Prefoc 255.255.0 MAC Settings Use MAC ID of Ethernet Adapter (Default) Use MAC Address:	

Please note the tooltip and name your network as in the Vector hardware configuration:

Settings for ETH_Network		
* * Connerel		
General	General	
	Network	
	Name: myEthernet	
	Channel:	
	Communication VLAN Databases	
	Security Security Manager	
	Security Profile: No security profile V Refresh Profiles	
	IP Settings Use static IPv4 address	
	IP address: 192.168.0.2	
	Subnet mask / Prefix: 255 255 255 0	
	MAC Settings	
	Use MAC ID of Ethernet Adapter (Default)	
	Use MAC Address:	
	<	

Make sure the segment and the device are corresponding to your hardware setup.

Please enter the correct settings in the next step. Find an explanation below the illustration.



Network		
Name:		
Logical channel:	Ethernet1	
Information		
Company:	Vector Informatik GmbH	
Version:	20.0.0.0	
Connection Protoco	ol Settings	
Filter		
Protocol:	UDP v	
Source IP:	192.168.88.30	
Source port:	1021	
Destination IP:	0.0.0.0 or 0 = disabled	
Destination port:	1021	

The Protocol must be UDP as this is the format the ADMA will send.

Source IP	:	The IP Address of the ADMA on Ethernet1 (default is 192.168.88.30)
Source port	:	The Port of the ADMA where it sends out data on Ethernet1
Destination IP	:	IP Address, where the ADMA will send its data to. In our example we broadcasted the data, you can also add a dedicated IP here (e. g. 192.168.88.100 as seen above).
Destination Port	:	The Port on which CANape will listen for data

Please make sure that this filter is set up correctly, otherwise you will not receive any data.



## **3** Configuration Recording

This feature is only available for ADMA 3.3.3.

In the data packet of the ADMA sensors, the GSCI configuration is transmitted piecewise in the dynamic header. The Decoder Plugin can record this configuration and then save it in the CANape project directory as a GSCI file.

To activate this behavior, only the "Configuration\_Write\_Status" signal must be measured in the CANape project. To do this, add the signal to the measurement configuration.



If the measurement is now started, the configuration elements are recorded.

[ [3] Numeric				-	Ð	×
Configuration_Write_Status	Collecting	Configuration	Data			

As soon as the configuration has been completely transferred, this is saved in the file "ADMAnet\_Configuration.gsci" in the CANape project folder.

[3] Numeric			-	8	×
Configuration_Write_Status	Configuration	Completed			